

**JOINT GENERAL EMPLOYEE PENSION PLAN BOARD,
POLICE PENSION PLAN RETIREMENT COMMITTEE, AND
OTHER POST-EMPLOYMENT BENEFITS (OPEB) BOARD
AGENDA**



NOVEMBER 14, 2019- 9:00 A.M.

**CITY HALL CONFERENCE ROOM
15 LOOCKERMAN PLAZA
DOVER, DELAWARE**

PUBLIC COMMENTS ARE WELCOMED ON ANY ITEM AND WILL BE PERMITTED AT APPROPRIATE TIMES. WHEN POSSIBLE, PLEASE NOTIFY THE CITY CLERK (736-7008 OR E-MAIL AT CITYCLERK@DOVER.DE.US) SHOULD YOU WISH TO BE RECOGNIZED.

ADOPTION OF AGENDA

- 1. ADOPTION OF MINUTES - SPECIAL JOINT GENERAL EMPLOYEE PENSION PLAN BOARD, POLICE PENSION PLAN RETIREMENT COMMITTEE, AND OPEB BOARD MEETING OF SEPTEMBER 5, 2019**
- 2. QUARTERLY PERFORMANCE REVIEWS (QUARTER ENDING SEPTEMBER 30, 2019) (MILLIMAN, INC.)**
(STAFF RECOMMENDS ACCEPTANCE OF THE BELOW REPORTS)
 - A. GENERAL EMPLOYEE PENSION PLAN**
 - B. POLICE PENSION PLAN**
 - C. OPEB PLAN**
- 3. REVIEW OF OPEB PLAN INVESTMENT POLICY (MILLIMAN, INC.)**
- 4. ADJOURNMENT**

TO ASSURE THAT THERE WILL BE A QUORUM,
PLEASE RSVP BY CONTACTING THE CITY CLERK'S OFFICE
BY EMAIL AT CITYCLERK@DOVER.DE.US OR BY CALLING 736-7008
AS SOON AS POSSIBLE.

/JT

S:\AGENDAS-MINUTES-PACKETS-PRESENTATIONS-ATT&EXH\MISC-AGENDAS\PENSION AND OPEB\2019\11-14-2019 JOINT GENERAL EMPLOYEE-POLICE-OPEB AGENDA.WPD

THE AGENDA ITEMS AS LISTED MAY NOT BE CONSIDERED IN SEQUENCE. PURSUANT TO 29 DEL. C. §10004(E)(2), THIS AGENDA IS SUBJECT TO CHANGE TO INCLUDE THE ADDITION OR THE DELETION OF ITEMS, INCLUDING EXECUTIVE SESSIONS, WHICH ARISE AT THE TIME OF THE MEETING.

**SPECIAL JOINT GENERAL EMPLOYEE PENSION PLAN BOARD,
POLICE PENSION PLAN RETIREMENT COMMITTEE,
AND OTHER POST-EMPLOYMENT BENEFITS (OPEB) BOARD**

A Special Joint Meeting of the General Employee Pension Plan Board, Police Pension Plan Retirement Committee, and Other Post-Employment Benefits (OPEB) Board was held on September 5, 2019, at 9:05 a.m. with Ms. Peddicord, Chair of the Other Post-Employment Benefits (OPEB) Board, presiding. Members present were Mr. Anderson, Mr. Knotts, Mr. Gedney, Mr. Taylor, Mr. Gray, Mr. Mullaney, Mr. Rogers, Major Stump, and Mrs. Mitchell. Mrs. Hawkins was absent.

AGENDA ADDITIONS/DELETIONS

Mrs. Mitchell moved for approval of the agenda, seconded by Mr. Taylor and unanimously carried.

ADOPTION OF MINUTES - JOINT GENERAL EMPLOYEE PENSION PLAN BOARD, POLICE PENSION PLAN RETIREMENT COMMITTEE, AND OTHER POST-EMPLOYMENT BENEFITS (OPEB) BOARD MEETING OF AUGUST 1, 2019

Mr. Knotts moved for adoption of the minutes of the Joint General Employee Pension Plan Board, Police Pension Plan Retirement Committee, and Other Post-Employment Benefits (OPEB) Board Meeting of August 1, 2019. The motion was seconded by Major Stump and unanimously carried.

INVESTMENT FUND MANAGER CHANGE RECOMMENDATIONS (MILLIMAN, INC.) - GENERAL EMPLOYEE PENSION PLAN, POLICE PENSION PLAN, AND OPEB PLAN

Staff recommended replacing the PGIM Small Cap Value Fund with the Janus Henderson Small Cap Value Fund, and the Invesco Oppenheimer International Growth Fund with the Morgan Stanley Institutional Growth Fund.

Mrs. Mitchell moved for approval of staff's recommendation for the General Employee Pension Plan. The motion was seconded by Mr. Anderson and unanimously carried.

Mr. Mullaney moved for approval of staff's recommendation for the Police Pension Plan. The motion was seconded by Mr. Gray and unanimously carried.

Mrs. Mitchell moved for approval of staff's recommendation for the OPEB Plan. The motion was seconded by Mr. Anderson and unanimously carried.

Mr. Mullany moved for adjournment, seconded by Mr. Hudson and unanimously carried.

Meeting adjourned at 9:08 a.m.

Lori Peddicord
Chair, OPEB Board

LP/jt/dd

S:\AGENDAS-MINUTES-PACKETS-PRESENTATIONS-ATT&EXH\Misc-Minutes\PENSION AND OPEB\2019\09-05-2019 Special Joint General Employee and Police Pension and OPEB Minutes.wpd

Milliman Investment Review

City of Dover, Delaware
Employee Pension Plan, Police Pension Plan,
and OPEB Plan Review

Milliman, Inc.
3RD QUARTER 2019

PRESENTED BY:
JEFF MARZINSKY



**Our mission is to serve our clients to
protect the health and financial
well-being of people everywhere.**

Meeting Agenda

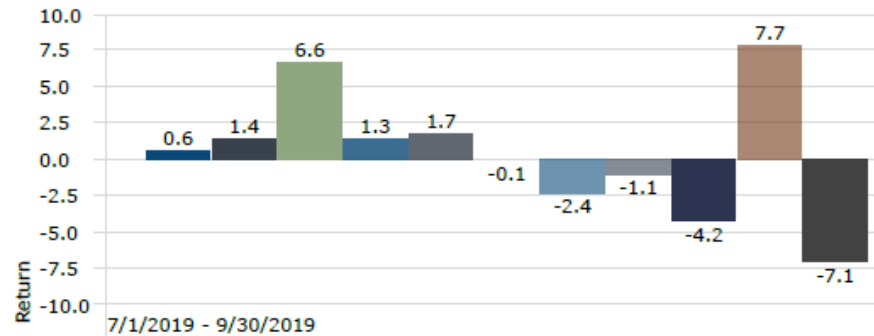
- ❑ Market Commentary
- ❑ General Employee Pension Plan Review
- ❑ Police Pension Plan Review
- ❑ OPEB Plan Review
- ❑ Individual Fund Comments

Market Commentary

Broad Market Commentary – 3rd Quarter 2019

Milliman - Periodic Table

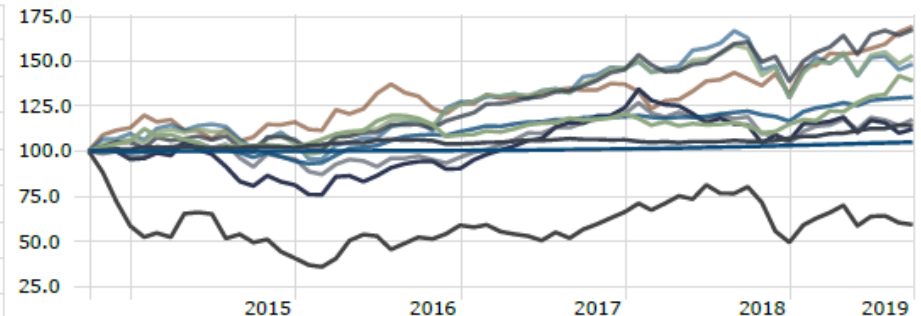
As of Date: 9/30/2019



■ BofAML US Treasury Bill 3 Mon TR USD
 ■ BBgBarc US Corporate High Yield TR USD
 ■ BBgBarc US Govt/Credit Long TR USD
 ■ BBgBarc US Govt/Credit Interm TR USD
 ■ S&P 500 TR USD
 ■ S&P MidCap 400 TR
 ■ Russell 2000 TR USD
 ■ MSCI EAFE NR USD
 ■ MSCI EM NR USD
 ■ FTSE NAREIT All Equity REITs TR USD
 ■ WTexas Crude Int Oil BL

Milliman - Periodic Table

Time Period: 10/1/2014 to 9/30/2019



■ BofAML US Treasury Bill 3 Mon TR USD
 ■ BBgBarc US Corporate High Yield TR USD
 ■ BBgBarc US Govt/Credit Long TR USD
 ■ BBgBarc US Govt/Credit Interm TR USD
 ■ S&P 500 TR USD
 ■ S&P MidCap 400 TR
 ■ Russell 2000 TR USD
 ■ MSCI EAFE NR USD
 ■ MSCI EM NR USD
 ■ FTSE NAREIT All Equity REITs TR USD
 ■ WTexas Crude Int Oil BL

- Markets declined during August amid increasing trade war tensions and fears of a recession in the US. Global equity markets staged a rebound during September, only to pull back at the end of the quarter.
- U.S. stocks rose modestly during the quarter, with increased volatility. The Dow finished the quarter up 1.83%, while the S&P 500 rose 1.70%. The Russell Mid Cap Index rose 0.48% and the Russell 2000 fell 2.40%. Across market caps, large value and growth finished similarly, while value outpaced growth in small and mid-caps.
- International equity markets finished the quarter in negative territory. The MSCI EAFE was down 1.07%, while the MSCI EAFE Small Cap Index fell 0.44%. The MSCI Emerging Markets Index fell 4.25%. Globally, we continue to see trade war tensions negatively influencing equity markets.
- The FOMC (Fed) made a 25-basis point reduction in interest rates in both July and September. The Fed indicated that the labor market remains strong and economic activity has been rising at a moderate rate, with low unemployment and solid job gains. However, the Fed indicated business investment and exports have weakened, the global economic outlook remains uncertain and inflation is running below the 2% target.
- Unemployment remained at the 3.7% achieved during June. Initial jobless claims dipped earlier in the quarter, but have trended back up to the 215,000 range. GDP growth has indicated some slowing in the economy with a current rate in the 2% range.
- Crude oil rose prices averaged \$55 a barrel during the quarter, even with the attack on Saudi facilities during September. Oil was \$54 a barrel at the end of the quarter.

Market Update



Index	1 Month	3 Month	YTD	1 Year	3 Year	5 Year	10 Year	2018	2017	2016	2015	2014	Market Chart
ICE BofAML US 3M Trsy Bill TR USD	0.17	0.56	1.81	2.39	1.54	0.98	0.54	1.87	0.86	0.33	0.05	0.03	
BBgBarc US Govt/Credit 1-3 Yr TR USD	-0.05	0.69	3.42	4.64	1.82	1.59	1.52	1.60	0.84	1.28	0.65	0.77	
BBgBarc US Aggregate 3-5 Yr TR USD	-0.10	1.27	5.76	7.71	2.29	2.62	2.97	1.14	1.75	2.01	1.57	2.82	
BBgBarc Aggregate Bond Treasury TR	-0.85	2.40	7.71	10.48	2.24	2.91	3.08	0.86	2.31	1.04	0.84	5.05	
BBgBarc US Govt/Credit Interm TR USD	-0.36	1.37	6.41	8.17	2.40	2.68	3.05	0.88	2.14	2.08	1.07	3.13	
BBgBarc US Govt/Credit Long TR USD	-1.91	6.58	20.93	21.88	5.56	6.81	7.42	-4.68	10.71	6.67	-3.30	19.31	
BBgBarc US Treasury US TIPS TR USD	-1.36	1.35	7.58	7.13	2.21	2.45	3.46	-1.26	3.01	4.68	-1.44	3.64	
BBgBarc US Corporate High Yield TR USD	0.36	1.33	11.41	6.36	6.07	5.37	7.94	-2.08	7.50	17.13	-4.47	2.45	
BBgBarc Global Aggregate TR USD	-1.02	0.72	6.32	7.60	1.59	1.99	2.34	-1.20	7.39	2.09	-3.15	0.59	
DJ US Moderate TR USD	1.03	1.10	14.77	4.52	8.17	7.23	9.35	-3.92	13.12	9.26	-0.13	9.08	
DJ Industrial Average TR USD	2.05	1.83	17.51	4.21	16.44	12.28	13.56	-3.48	28.11	16.50	0.21	10.04	
S&P 500 TR USD	1.87	1.70	20.55	4.25	13.39	10.84	13.24	-4.38	21.83	11.96	1.38	13.69	
Russell 1000 Value TR USD	3.57	1.36	17.81	4.00	9.43	7.79	11.46	-8.27	13.66	17.34	-3.83	13.45	
Russell 1000 TR USD	1.73	1.42	20.53	3.87	13.19	10.62	13.23	-4.78	21.69	12.05	0.92	13.24	
Russell 1000 Growth TR USD	0.01	1.49	23.30	3.71	16.89	13.39	14.94	-1.51	30.21	7.08	5.67	13.05	
Russell Mid Cap Value TR USD	4.06	1.22	19.47	1.60	7.82	7.55	12.29	-12.29	13.34	20.00	-4.78	14.75	
Russell Mid Cap TR USD	1.97	0.48	21.93	3.19	10.69	9.10	13.07	-9.06	18.52	13.80	-2.44	13.22	
Russell Mid Cap Growth TR USD	-1.14	-0.67	25.23	5.20	14.50	11.12	14.08	-4.75	25.27	7.33	-0.20	11.90	
Russell 2000 Value TR USD	5.13	-0.57	12.82	-8.24	6.54	7.17	10.06	-12.86	7.84	31.74	-7.47	4.22	
Russell 2000 TR USD	2.08	-2.40	14.18	-8.89	8.23	8.19	11.19	-11.01	14.65	21.31	-4.41	4.89	
Russell 2000 Growth TR USD	-0.82	-4.17	15.34	-9.63	9.79	9.08	12.25	-9.31	22.17	11.32	-1.38	5.60	
NASDAQ Composite TR USD	0.54	0.18	21.54	0.52	15.88	13.51	15.49	-2.84	29.64	8.87	6.96	14.75	
MSCI EAFE Large Value NR USD	4.75	-2.01	7.31	-5.20	4.83	0.30	2.76	-15.02	20.54	5.19	-6.89	-6.34	
MSCI EAFE NR USD	2.87	-1.07	12.80	-1.34	6.48	3.27	4.90	-13.79	25.03	1.00	-0.81	-4.90	
MSCI EAFE Large Growth NR USD	1.03	-0.36	19.07	4.78	8.55	5.64	6.60	-10.98	27.97	-3.47	3.28	-4.70	
FTSE Global All Cap ex US (USA) NR USD	2.57	-1.65	11.48	-1.66	6.19	3.19	4.84	-14.62	27.41	4.72	-4.29	-3.39	
MSCI EAFE Small Cap NR USD	2.81	-0.44	12.05	-5.93	5.94	6.02	7.45	-17.89	33.01	2.18	9.59	-4.95	
MSCI EM NR USD	1.91	-4.25	5.89	-2.02	5.97	2.33	3.37	-14.57	37.28	11.19	-14.92	-2.19	
MSCI US REIT NR USD	2.69	7.38	25.71	16.84	5.91	8.72	11.63	-5.83	3.74	7.14	1.28	28.82	
DJ US Select REIT TR USD	2.71	6.83	24.64	16.41	6.48	9.70	12.69	-4.22	3.76	6.68	4.48	32.00	
FTSE Nareit All REITs TR	2.11	7.24	27.37	19.58	9.02	10.90	13.30	-4.10	9.27	9.28	2.29	27.15	
DJ Global World Real Estate TR USD	1.84	3.71	20.88	14.58	7.67	7.86	9.05	-6.69	16.94	4.79	-0.65	13.44	
CBOE Market Volatility (VIX)	-14.44	7.69	-36.11	33.99	6.91	-0.09	-4.45	130.25	-21.37	-22.90	-5.16	39.94	

Source: Morningstar Direct

Return Data as of: 9/30/2019

Periodic Table

As of Date: 9/30/2019

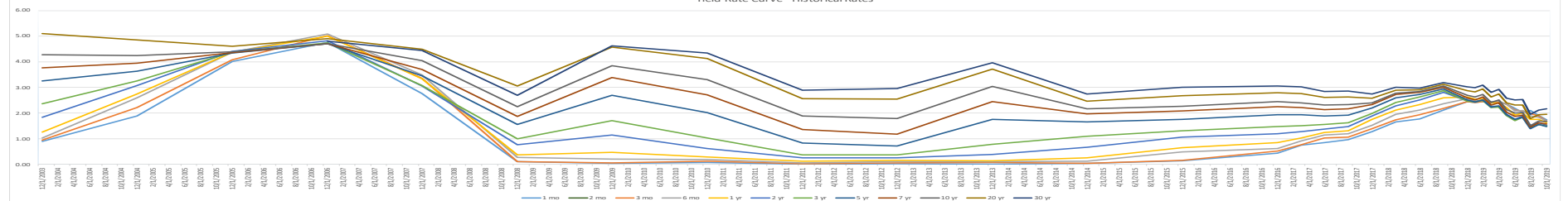
Best ↑	MSCI EM NR USD 78.5	FTSE NAREIT All Equity REITs TR USD 27.9	BBgBarc US Govt/Credit Long TR USD 22.5	FTSE NAREIT All Equity REITs TR USD 19.7	Russell 2000 TR USD 38.8	FTSE NAREIT All Equity REITs TR USD 28.0	FTSE NAREIT All Equity REITs TR USD 2.8	WTexas Crude Int Oil BL 44.8	MSCI EM NR USD 37.3	BofAML US Treasury Bill 3 Mon TR USD 1.9	FTSE NAREIT All Equity REITs TR USD 28.5
	WTexas Crude Int Oil BL 78.0	Russell 2000 TR USD 26.9	FTSE NAREIT All Equity REITs TR USD 8.3	MSCI EM NR USD 18.2	S&P MidCap 400 TR 33.5	BBgBarc US Govt/Credit Long TR USD 19.3	S&P 500 TR USD 1.4	Russell 2000 TR USD 21.3	MSCI EAFE NR USD 25.0	BBgBarc US Govt/Credit Interm TR USD 0.9	BBgBarc US Govt/Credit Long TR USD 20.9
	BBgBarc US Corporate High Yield TR USD 58.2	S&P MidCap 400 TR 26.6	WTexas Crude Int Oil BL 8.2	S&P MidCap 400 TR 17.9	S&P 500 TR USD 32.4	S&P 500 TR USD 13.7	BBgBarc US Govt/Credit Interm TR USD 1.1	S&P MidCap 400 TR 20.7	S&P 500 TR USD 21.8	BBgBarc US Corporate High Yield TR USD -2.1	S&P 500 TR USD 20.6
	S&P MidCap 400 TR 37.4	MSCI EM NR USD 18.9	BBgBarc US Govt/Credit Interm TR USD 5.8	MSCI EAFE NR USD 17.3	MSCI EAFE NR USD 22.8	S&P MidCap 400 TR 9.8	BofAML US Treasury Bill 3 Mon TR USD 0.1	BBgBarc US Corporate High Yield TR USD 17.1	S&P MidCap 400 TR 16.2	FTSE NAREIT All Equity REITs TR USD -4.0	WTexas Crude Int Oil BL 19.8
	MSCI EAFE NR USD 31.8	BBgBarc US Corporate High Yield TR USD 15.1	BBgBarc US Corporate High Yield TR USD 5.0	Russell 2000 TR USD 16.3	BBgBarc US Corporate High Yield TR USD 7.4	Russell 2000 TR USD 4.9	MSCI EAFE NR USD -0.8	S&P 500 TR USD 12.0	Russell 2000 TR USD 14.6	S&P 500 TR USD -4.4	S&P MidCap 400 TR 17.9
	FTSE NAREIT All Equity REITs TR USD 28.0	WTexas Crude Int Oil BL 15.1	S&P 500 TR USD 2.1	S&P 500 TR USD 16.0	WTexas Crude Int Oil BL 6.9	BBgBarc US Govt/Credit Interm TR USD 3.1	S&P MidCap 400 TR -2.2	MSCI EM NR USD 11.2	WTexas Crude Int Oil BL 12.5	BBgBarc US Govt/Credit Long TR USD -4.7	Russell 2000 TR USD 14.2
	Russell 2000 TR USD 27.2	S&P 500 TR USD 15.1	BofAML US Treasury Bill 3 Mon TR USD 0.1	BBgBarc US Corporate High Yield TR USD 15.8	FTSE NAREIT All Equity REITs TR USD 2.9	BBgBarc US Corporate High Yield TR USD 2.5	BBgBarc US Govt/Credit Long TR USD -3.3	FTSE NAREIT All Equity REITs TR USD 8.6	BBgBarc US Govt/Credit Long TR USD 10.7	Russell 2000 TR USD -11.0	MSCI EAFE NR USD 12.8
	S&P 500 TR USD 26.5	BBgBarc US Govt/Credit Long TR USD 10.2	S&P MidCap 400 TR -1.7	BBgBarc US Govt/Credit Long TR USD 8.8	BofAML US Treasury Bill 3 Mon TR USD 0.1	BofAML US Treasury Bill 3 Mon TR USD 0.0	Russell 2000 TR USD -4.4	BBgBarc US Govt/Credit Long TR USD 6.7	FTSE NAREIT All Equity REITs TR USD 8.7	S&P MidCap 400 TR -11.1	BBgBarc US Corporate High Yield TR USD 11.4
	BBgBarc US Govt/Credit Interm TR USD 5.2	MSCI EAFE NR USD 7.8	Russell 2000 TR USD -4.2	BBgBarc US Govt/Credit Interm TR USD 3.9	BBgBarc US Govt/Credit Interm TR USD -0.9	MSCI EM NR USD -2.2	BBgBarc US Corporate High Yield TR USD -4.5	BBgBarc US Govt/Credit Interm TR USD 2.1	BBgBarc US Corporate High Yield TR USD 7.5	MSCI EAFE NR USD -13.8	BBgBarc US Govt/Credit Interm TR USD 6.4
	BBgBarc US Govt/Credit Long TR USD 1.9	BBgBarc US Govt/Credit Interm TR USD 5.9	MSCI EAFE NR USD -12.1	BofAML US Treasury Bill 3 Mon TR USD 0.1	MSCI EM NR USD -2.6	MSCI EAFE NR USD -4.9	MSCI EM NR USD -14.9	MSCI EAFE NR USD 1.0	BBgBarc US Govt/Credit Interm TR USD 2.1	MSCI EM NR USD -14.6	MSCI EM NR USD 5.9
Worst ↓	BofAML US Treasury Bill 3 Mon TR USD 0.2	BofAML US Treasury Bill 3 Mon TR USD 0.1	MSCI EM NR USD -18.4	WTexas Crude Int Oil BL -7.1	BBgBarc US Govt/Credit Long TR USD -8.8	WTexas Crude Int Oil BL -45.6	WTexas Crude Int Oil BL -30.5	BofAML US Treasury Bill 3 Mon TR USD 0.3	BofAML US Treasury Bill 3 Mon TR USD 0.9	WTexas Crude Int Oil BL -25.3	BofAML US Treasury Bill 3 Mon TR USD 1.8
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	YTD

Interest Rate Review

Fed Rate Adjustments

Yield Curve Rates - Source US Dept of Treasury																					
Date	1 mo	2 mo	3 mo	6 mo	1 yr	2 yr	3 yr	5 yr	7 yr	10 yr	20 yr	30 yr	Fed Rate	Yield Curve	Fed Rate Adjustments	SP500	Dow	LBMA Gold	Oil Pri	Vix	Recession
10/10/2019	1.74	1.71	1.68	1.68	1.63	1.53	1.49	1.48	1.57	1.67	1.96	2.16	1.75%			2938.13	26496.67	1494.80	-N/A	17.57	
9/30/2019	1.91	1.87	1.88	1.83	1.75	1.63	1.56	1.55	1.62	1.68	1.94	2.12	1.75%		(.25%) 9/18	2976.74	26916.83	1485.30	54.09	16.24	
8/30/2019	2.10	2.04	1.99	1.89	1.76	1.50	1.42	1.39	1.45	1.50	1.78	1.96	2.00%		(.25%) 7/31	2926.46	26403.28	1528.40	55.07	18.98	
7/31/2019	2.01	2.07	2.08	2.10	2.00	1.89	1.84	1.84	1.92	2.02	2.31	2.53	2.25%			2980.38	26864.27	1427.55	58.53	13.94	
6/28/2019	2.18	2.15	2.12	2.09	1.92	1.75	1.71	1.76	1.87	2.00	2.31	2.52	2.25%			2941.76	26599.96	1409.00	58.20	15.08	
5/31/2019	2.35	2.38	2.35	2.35	2.21	1.95	1.90	1.93	2.03	2.14	2.39	2.58	2.25%			2752.06	24815.04	1295.55	53.49	18.71	
4/30/2019	2.43	2.44	2.43	2.46	2.39	2.27	2.24	2.28	2.39	2.51	2.75	2.93	2.25%			2945.83	26592.91	1282.30	63.83	13.12	
3/29/2019	2.43	2.44	2.40	2.44	2.40	2.27	2.21	2.23	2.31	2.41	2.63	2.81	2.25%			2834.40	25928.68	1295.40	60.19	13.71	
2/28/2019	2.44	2.47	2.45	2.50	2.54	2.52	2.50	2.52	2.63	2.73	2.94	3.09	2.25%			2784.49	25916.00	1319.15	57.21	14.78	
1/31/2019	2.42	2.43	2.41	2.46	2.55	2.45	2.43	2.43	2.51	2.63	2.83	2.99	2.25%			2704.10	24999.67	1323.25	53.84	16.57	
12/31/2018	2.44	2.45	2.45	2.56	2.63	2.48	2.46	2.51	2.59	2.69	2.87	3.02	2.25%		.25% 12/19	2506.85	23327.46	1279.00	45.15	25.42	
9/28/2018	2.12		2.19	2.36	2.59	2.81	2.88	2.94	3.01	3.05	3.13	3.19	2.00%		.25% 9/26	2913.98	26458.31	1187.25	73.16	12.12	
6/29/2018	1.77		1.93	2.11	2.33	2.52	2.63	2.73	2.81	2.85	2.91	2.98	1.75%		.25% 6/13	2718.37	24271.41	1250.45	74.13	16.09	
3/28/2018	1.65		1.73	1.95	2.12	2.28	2.41	2.59	2.72	2.77	2.89	3.01	1.50%		.25% 3/21	2605.00	23848.42	1332.45	64.30	22.87	
12/29/2017	1.28		1.39	1.53	1.76	1.89	1.98	2.20	2.33	2.40	2.58	2.74	1.25%		.25% 12/15	2673.61	24719.22	1291.00	60.46	11.04	
9/29/2017	0.96		1.06	1.20	1.31	1.47	1.62	1.92	2.16	2.33	2.63	2.86	1.00%			2519.36	22405.09	1283.10	51.67	9.51	
6/30/2017	0.84		1.03	1.14	1.24	1.38	1.55	1.89	2.14	2.31	2.61	2.84	1.00%			2423.41	21349.63	1242.25	46.02	11.18	
3/31/2017	0.74		0.76	0.91	1.03	1.27	1.50	1.93	2.22	2.40	2.76	3.02	0.75%		.25% 3/16, .25% 6/14	2362.72	20663.22	1244.85	50.54	12.37	
12/30/2016	0.44		0.51	0.62	0.85	1.20	1.47	1.93	2.25	2.45	2.79	3.06	0.50%		.25% 12/14	2238.83	19762.60	1145.90	53.75	14.04	
12/31/2015	0.14		0.16	0.49	0.65	1.06	1.31	1.76	2.09	2.27	2.67	3.01	0.25%		.25% 12/16	2043.94	17425.03	1060.00	37.13	18.21	
12/31/2014	0.03		0.04	0.12	0.25	0.67	1.10	1.65	1.97	2.17	2.47	2.75	0.00%			2058.90	17823.07	1206.00	53.45	19.20	
12/31/2013	0.01		0.07	0.10	0.13	0.38	0.78	1.75	2.45	3.04	3.72	3.96	0.00%			1848.36	16576.66	1204.50	98.17	13.72	
12/31/2012	0.02		0.05	0.11	0.16	0.25	0.36	0.72	1.18	1.78	2.54	2.95	0.00%			1426.19	13104.14	1657.50	91.83	18.02	
12/30/2011	0.01		0.02	0.06	0.12	0.25	0.36	0.83	1.35	1.89	2.57	2.89	0.00%			1257.60	12217.56	1531.00	98.83	23.40	
12/31/2010	0.07		0.12	0.19	0.29	0.61	1.02	2.01	2.71	3.30	4.13	4.34	0.00%			1257.64	11577.51	1405.50	91.38	17.75	
12/31/2009	0.04		0.06	0.20	0.47	1.14	1.70	2.69	3.39	3.85	4.58	4.63	0.00%			1115.10	10428.05	1087.50	79.39	21.68	Dec 2007-June 2009
12/31/2008	0.11		0.11	0.27	0.37	0.76	1.00	1.55	1.87	2.25	3.05	2.69	0.00%		(.75%) 1/22, (.50%) 1/30, (.75%) 3/18, (.25%) 4/30(.50%) 10/8, (.50%) 10/29, (.75%) 12/16	903.25	8776.39	869.75	44.60	40.00	
12/31/2007	2.76		3.36	3.49	3.34	3.05	3.07	3.45	3.70	4.04	4.50	4.45	4.25%		(.50%) 9/18, (.25%) 10/31, (.25%) 12/11	1468.36	13264.82	833.75	95.95	22.50	
12/29/2006	4.75		5.02	5.09	5.00	4.82	4.74	4.70	4.70	4.71	4.91	4.81	5.25%		.25% 1/31, .25% 3/28, .25% 5/10, .25% 6/29	1418.30	12463.15	632.00	60.85	11.56	
12/30/2005	4.01		4.08	4.37	4.38	4.41	4.37	4.35	4.36	4.39	4.61		4.25%		.25% 2/2, .25% 3/22, .25% 5/3, .25% 6/30, .25% 8/9, .25% 9/20, .25% 11/1, .25% 12/31	1248.29	10717.50	513.00	61.06	12.07	
12/31/2004	1.89		2.22	2.59	2.75	3.08	3.25	3.63	3.94	4.24	4.85		2.25%		.25% 6/30, .25% 8/10, .25% 9/21, .25% 11/10, .25% 12/14	1211.92	10783.01	435.60	43.36	13.29	

Yield Rate Curve - Historical Rates



Employee Pension Plan Review

Investment Review – Employee Pension Plan

9/30/19 Quarter End – Performance Update

- As of quarter end, the plan had approximately \$44.0 million in assets, down from \$44.7 million at the prior quarter end.
- During the quarter, the plan had no contributions, withdrawals/payments of approximately \$1.0 million, and fees of approximately \$4.5 thousand.
- Total performance of the plan portfolio was 0.66% net (0.72% gross) for the quarter, trailing the Plan's benchmark index performance of 1.10%. For the year, the plan return was 5.20% net, 5.46% gross, beating the plan's index performance of 3.77%.

City of Dover General Employees Pension Plan Quarterly Return Summary									
Month End	BMV	Contribution	Withdrawals	Fees	Gain	EMV	CIVILIAN-NET RETURN	CIVILIAN- GROSS RETURN	
10/31/2018	\$ 43,782,653.27	\$ -	\$ 336,208.37	\$ 1,524.13	\$ (2,383,187.97)	\$ 41,061,732.80	-5.48%	-5.46%	
11/30/2018	\$ 41,061,732.80	\$ -	\$ 336,896.12	\$ 1,459.54	\$ 748,659.44	\$ 41,472,036.58	1.84%	1.86%	
12/31/2018	\$ 41,472,036.58	\$ -	\$ 338,873.56	\$ 1,474.61	\$ (1,824,192.56)	\$ 39,307,495.85	-4.43%	-4.41%	
1/31/2019	\$ 39,307,495.85	\$ -	\$ 335,655.83	\$ 1,433.52	\$ 2,532,016.14	\$ 41,502,422.64	6.49%	6.51%	
2/28/2019	\$ 41,502,422.64	\$ 1,000,000.00	\$ 335,615.48	\$ 1,503.57	\$ 931,484.89	\$ 43,096,788.48	2.22%	2.24%	
3/31/2019	\$ 43,096,788.48	\$ -	\$ 334,593.38	\$ 1,495.46	\$ 548,536.36	\$ 43,309,236.00	1.28%	1.30%	
4/30/2019	\$ 43,309,236.00	\$ -	\$ 335,615.48	\$ 1,502.17	\$ 1,002,256.90	\$ 43,974,375.25	2.33%	2.35%	
5/31/2019	\$ 43,974,375.25	\$ -	\$ 336,165.85	\$ 1,518.80	\$ (1,661,895.09)	\$ 41,974,795.51	-3.81%	-3.79%	
6/30/2019	\$ 41,974,795.51	\$ 1,100,000.00	\$ 336,165.85	\$ 1,495.78	\$ 1,956,389.82	\$ 44,693,523.70	4.68%	4.70%	
7/31/2019	\$ 44,693,523.70	\$ -	\$ 336,165.85	\$ 1,503.69	\$ 228,370.65	\$ 44,584,224.81	0.51%	0.54%	
8/31/2019	\$ 44,584,224.81	\$ -	\$ 336,342.31	\$ 1,523.79	\$ (414,185.99)	\$ 43,832,172.72	-0.94%	-0.91%	
9/30/2019	\$ 43,832,172.72	\$ -	\$ 335,989.39	\$ 1,516.84	\$ 473,431.32	\$ 43,968,097.81	1.09%	1.11%	
		\$ -	\$ 1,008,497.55	\$ 4,544.32	\$ 287,615.98		Quarterly Return	0.66%	0.72%
		\$ 2,100,000.00	\$ 4,034,287.47	\$ 17,951.90	\$ 2,137,683.91		One Year Return	5.20%	5.46%

Investment Review – Employee Pension Plan

Asset Allocation at Quarter End

Plan Assets

As of Date: 9/30/2019



	Assets (\$)	Assets (%)
• Vanguard Emerging Mkts Stock Idx Instl	5,254,000.14	11.95
• Vanguard Equity-Income Adm	3,535,615.63	8.04
• Vanguard PRIMECAP Core Inv	3,195,917.10	7.27
• Morgan Stanley Inst Intl Advtg I	3,084,321.83	7.02
• American Funds New Perspective R6	3,077,540.81	7.00
• Wells Fargo Treasury Plus MMkt Inst	2,618,208.99	5.96
• Vanguard Real Estate Index Institutional	2,216,722.60	5.04
• Vanguard Short-Term Bond Index Adm	2,204,818.89	5.01
• PGIM High Yield R6	2,198,919.80	5.00
• Vanguard Inflation-Protected Secs I	2,190,099.92	4.98
• Vanguard Mid-Cap Value Index Admiral	1,768,516.39	4.02
• Vanguard Mid Cap Index Admiral	1,763,942.38	4.01
• Columbia Strategic Income Inst3	1,763,835.53	4.01
• Vanguard Interm-Term Bond Index Adm	1,761,497.24	4.01
• Janus Henderson Small Cap Value I	1,759,795.26	4.00
• Federated Kaufmann Small Cap Instl	1,721,696.31	3.92
• Vanguard Growth Index Admiral	1,656,037.02	3.77
• Vanguard Long-Term Bond Index Instl	1,098,109.95	2.50
• PIMCO Long Duration Total Return Instl	1,095,219.56	2.49
Total	43,964,815.35	100.00

- Plan is a sponsor directed defined benefit plan. Committee oversees asset allocation
- The following changes were made during the quarter:
 - Janus Henderson Small Cap Value replaced PGIM QMA Small Cap Value.
 - Morgan Stanley Inst Intl Advantage replaced Invesco Oppenheimer International Growth.
 - A minor adjustment was made to the large cap growth funds, Vanguard Primecap and Vanguard Growth Index. The total large cap growth allocation remains the same, however. Note that Vanguard Primecap is closed and no longer accepting contributions.

Investment Review – Employee Pension Plan

Score Card – Quantitative Analysis

- A Portfolio Scorecard is used to review fund performance based on a variety of analytic measures. It focuses on specific asset category, investment style (active or passive), and socially conscious nature of the individual investments.
- The table on the following slide indicates whether a fund meets these various quantitative measures by displaying a “√” (check) mark, or does not meet the criteria by displaying an “x” (x-mark).
 - “Approve” means that the fund meets the criteria.
 - “Watch” means that the fund is not meeting criteria and is trailing in performance compared to both its peer group and benchmarks.
 - “-“mark means that the fund is trailing in some areas of review, but not currently enough to fall to “Watch”.
 - “*” indicates that the fund has less than 5 years of data.
- In the following exhibit, Milliman’s analytic review indicates that most funds meet the screens for each asset class peer group, as designated with “Approve” status under “Mgr Rating”.

Monthly Performance Update

City of Dover, Delaware General Employees Pension Plan

As of: 9/30/2019

Asset Category	Investment Name	YTD	1 Month	3 Month	1 Year	3 Year	5 Year	Expense Ratio	Ticker
Money Market - Taxable	Wells Fargo Treasury Plus MMkt Inst	1.64	0.16	0.52	2.18	1.37	0.85	0.20	PISXX
	Wells Fargo Treasury Plus MMkt Inst	1.64	0.16	0.52	2.18	1.37	0.85		
Short-Term Bond	Vanguard Short-Term Bond Index Adm	4.47	-0.10	0.95	5.98	1.94	1.94	0.07	VBIRX
	BBgBarc US 1-5Y GovCredit FIAdj TR USD	4.48	-0.17	0.89	6.01	2.01	2.01		
Inflation-Protected Bond	Vanguard Inflation-Protected Secs I	7.63	-1.09	1.45	7.13	2.07	2.41	0.07	VIPIX
	BBgBarc US Treasury US TIPS TR USD	7.58	-1.36	1.35	7.13	2.21	2.45		
Intermediate Core Bond	Vanguard Interim-Term Bond Index Adm	10.28	-0.70	2.41	12.43	3.10	3.93	0.07	VBILX
	BBgBarc US 5-10Y GovCredit FIAdj TR USD	10.23	-0.73	2.28	12.49	3.18	4.01		
High Yield Bond	PGIM High Yield R6	12.78	0.65	1.61	8.11	6.85	6.09	0.42	PHYQX
	BBgBarc High Yield Corporate TR USD	11.41	0.36	1.33	6.36	6.07	5.37		
Nontraditional Bond	Columbia Strategic Income Inst3	8.39	0.35	0.89	7.11	4.54	4.43	0.61	CPHUX
	BBgBarc Global Aggregate TR USD	6.32	-1.02	0.72	7.60	1.59	1.99		
Long-Term Bond	Vanguard Long-Term Bond Index Instl	20.71	-2.00	6.76	22.05	5.47	6.80	0.05	VBLLX
	BBgBarc US Govt/Credit Long TR USD	20.93	-1.91	6.58	21.88	5.56	6.81		
Long-Term Bond	PIMCO Long Duration Total Return Instl	20.19	-1.83	6.51	21.02	6.23	7.21	0.97	PLRIX
	BBgBarc US Govt/Credit Long TR USD	20.93	-1.91	6.58	21.88	5.56	6.81		
Large Value	Vanguard Equity-Income Adm	17.51	3.58	2.26	6.51	11.24	9.62	0.18	VEIRX
	Russell 1000 Value TR USD	17.81	3.57	1.36	4.00	9.43	7.79		
Large Blend	Vanguard PRIMECAP Core Inv	15.73	2.38	1.46	-1.06	12.95	10.81	0.46	VPCCX
	MSCI US Prime Market 750 GR USD	20.68	1.73	1.53	4.09	13.33	10.77		
Large Growth	Vanguard Growth Index Admiral	24.88	0.24	2.00	4.52	15.38	12.19	0.05	VIGAX
	CRSP US Large Cap Growth TR USD	24.94	0.24	2.01	4.55	15.42	12.24		
Mid-Cap Value	Vanguard Mid-Cap Value Index Admiral	20.43	4.43	1.88	2.30	8.83	8.37	0.07	VMVAX
	CRSP US Mid Cap Value TR USD	20.49	4.44	1.88	2.34	8.87	8.41		
Mid-Cap Blend	Vanguard Mid Cap Index Admiral	22.60	2.07	0.61	3.65	10.67	9.20	0.05	VIMAX
	CRSP US Mid Cap TR USD	22.66	2.06	0.62	3.70	10.70	9.24		
Small Value	Janus Henderson Small Cap Value I	17.88	4.11	1.21	1.49	8.44	8.83	0.88	JSCOX
	Russell 2000 Value TR USD	12.82	5.13	-0.57	-8.24	6.54	7.17		
Small Growth	Federated Kaufmann Small Cap Instl	21.18	-4.95	-6.38	1.91	21.16	-N/A	0.91	FKAIX
	Russell 2000 Growth TR USD	15.34	-0.82	-4.17	-9.63	9.79	9.08		
Foreign Large Growth	Morgan Stanley Inst Intl Advtg I	20.08	0.75	-0.63	4.90	16.41	13.47	1.00	MFAIX
	MSCI EAFE Large Growth NR USD	19.07	1.03	-0.36	4.78	8.55	5.64		
World Large Stock	American Funds New Perspective R6	18.45	0.88	-0.42	2.88	12.38	9.72	0.45	RNPGX
	MSCI World NR USD	17.61	2.13	0.53	1.83	10.21	7.18		
Diversified Emerging Mkts	Vanguard Emerging Mkts Stock Idx Instl	8.12	1.38	-3.57	1.31	5.31	2.05	0.10	VEMIX
	FTSE EMs AC China A Incl (US RIC) NR USD	8.11	1.23	-3.63	1.16	5.41	2.34		
Real Estate	Vanguard Real Estate Index Institutional	28.20	1.90	7.42	19.92	7.10	9.96	0.10	VGSNX
	MSCI US REIT GR USD	26.82	2.86	7.69	18.31	7.26	10.11		

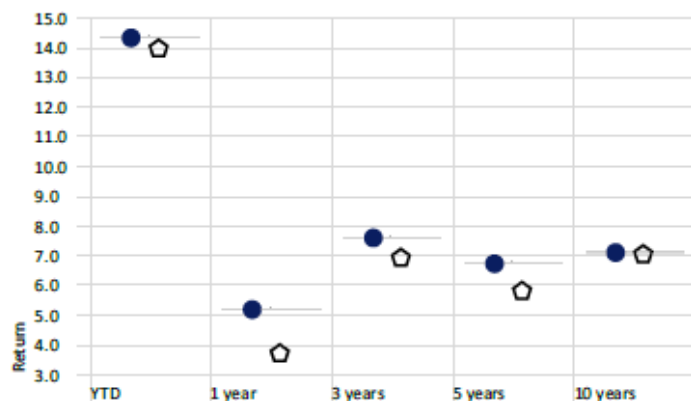
Investment Review – Employee Pension Plan

9/30/19 Quarter End – Performance Update

		Active Fund Criteria								Index Fund Criteria					
	Index Fund	3yr-Index	3yr-Peer	3yr-Alpha	3yr-Sharpe	5yr-Index	5yr-Peer	5yr-Alpha	5yr-Sharpe	3yr-Beta	3yr-TrackErr	5yr-Beta	5yr-TrackErr	Prospectus Net Expense Ratio	Mgr Rating
Wells Fargo Treasury Plus MMkt Inst														0.20	
Vanguard Inflation-Protected Secs I		x	✓	✓	✓	x	✓	✓	✓					0.07	Approve
Vanguard Short-Term Bond Index Adm	Yes									✓	✓	✓	✓	0.07	-
Vanguard Interm-Term Bond Index Adm	Yes									✓	✓	✓	✓	0.07	Approve
Vanguard Long-Term Bond Index Instl	Yes									✓	✓	✓	✓	0.05	Approve
PIMCO Long Duration Total Return Instl		✓	✓	✓	x	✓	✓	✓	✓					0.97	Approve
PGIM High Yield R6		✓	✓	✓	✓	✓	✓	✓	✓					0.42	Approve
Columbia Strategic Income Inst3		✓	✓	✓	✓	✓	✓	✓	✓					0.61	Approve
Vanguard Equity-Income Adm		✓	✓	✓	✓	✓	✓	✓	✓					0.18	Approve
Vanguard PRIMECAP Core Inv		x	✓	x	✓	✓	✓	✓	✓					0.46	-
Vanguard Growth Index Admiral	Yes									✓	✓	✓	✓	0.05	Approve
Vanguard Mid-Cap Value Index Admiral	Yes									✓	✓	✓	✓	0.07	Approve
Vanguard Mid Cap Index Admiral	Yes									✓	✓	✓	✓	0.05	Approve
Janus Henderson Small Cap Value I		✓	✓	✓	✓	✓	✓	✓	✓					0.88	Approve
Federated Kaufmann Small Cap Instl		✓	✓	✓	✓									0.91	*
Morgan Stanley Inst Intl Advtg I		✓	✓	✓	✓	✓	✓	✓	✓					1.00	Approve
American Funds New Perspective R6		✓	✓	✓	✓	✓	✓	✓	✓					0.45	Approve
Vanguard Emerging Mkts Stock Idx Instl	Yes									✓	x	✓	x	0.10	-
Vanguard Real Estate Index Institutional	Yes									✓	✓	✓	✓	0.10	Approve
Employee Plan - Return															

Performance Versus Benchmark

Peer Group (5-95%): Display Group

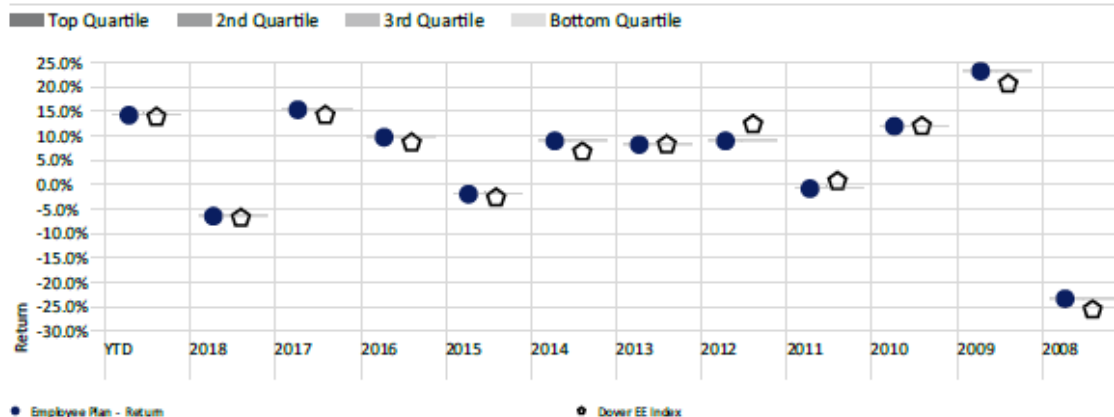


As of Date: 9/30/2019

	YTD	3 months	1 year	3 years	5 years	10 years
Employee Plan - Return	14.35	0.65	5.20	7.61	6.78	7.12
Dover EE Index	14.01	1.10	3.77	6.92	5.86	7.07

Performance Versus Benchmark

Peer Group (5-95%): Display Group Calculation Benchmark: Dover EE Index



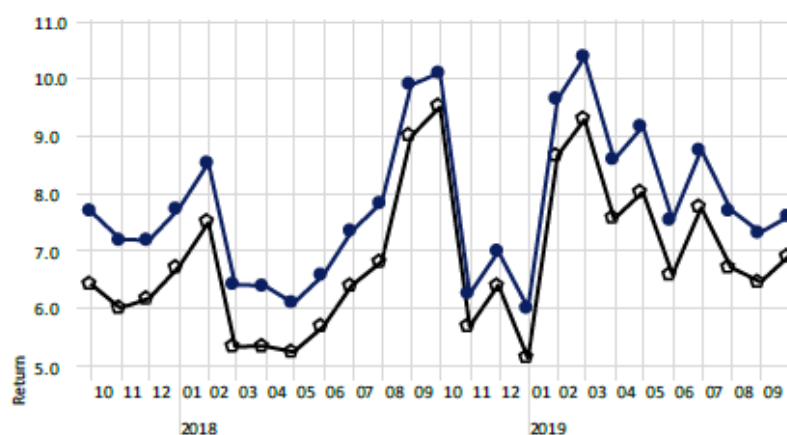
As of Date: 9/30/2019 Calculation Benchmark: Dover EE Index

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Employee Plan - Return	14.35	-6.19	15.52	9.96	-1.56	9.00	8.43	9.28	-0.70	12.29	23.45	-23.29
Dover EE Index	14.01	-6.68	14.41	8.86	-2.40	6.95	8.34	12.62	1.04	12.27	20.85	-25.24

Rolling Returns

Time Period: 10/1/2014 to 9/30/2019

Rolling Window: 3 Years 1 Month shift Calculation Benchmark: Dover EE Index



Employee Plan - Return

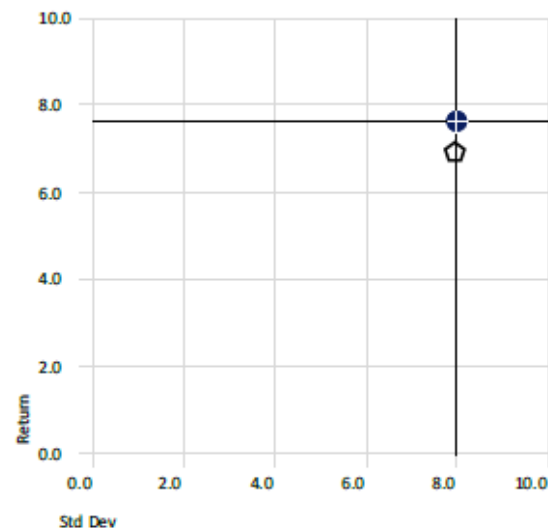
Dover EE Index

Key Statistics

Arithmetic Mean 1 Yr (Mo-End) 0.48
 Std Dev 1 Yr (Mo-End) 12.50
 Alpha 1 Yr (Mo-End) 1.19
 Sharpe Ratio 1 Yr (Mo-End) 0.28
 Arithmetic Mean 3 Yr (Mo-End) 0.64
 Std Dev 3 Yr (Mo-End) 7.99
 Alpha 3 Yr (Mo-End) -1.29
 Sharpe Ratio 3 Yr (Mo-End) 0.76
 Arithmetic Mean 5 Yr (Mo-End) 0.58
 Std Dev 5 Yr (Mo-End) 8.11
 Alpha 5 Yr (Mo-End) -0.54
 Sharpe Ratio 5 Yr (Mo-End) 0.72

Risk-Reward

Time Period: 10/1/2016 to 9/30/2019



Investment Review – Employee Pension Plan

9/30/19 Quarter End – Performance Update

- Majority of actively managed funds are performing well versus peers/indexes
- Returns and risk-adjusted measures for most investments rank well to peers
- Most expense ratios rank in bottom half or better to asset category peers
- Some fund underperformance/issues to be noted (details on follow pages):

Police Pension Plan Review

Investment Review – Police Pension Plan

9/30/19 Quarter End – Performance Update

- As of quarter end, the plan had approximately \$13.8 million in assets, down from \$14.1 million at the prior quarter end.
- During the quarter, the plan had no contributions, withdrawals/payments of approximately \$380 thousand, and fees of approximately \$1.3 thousand.
- Total performance of the plan portfolio was 0.64% net (0.70% gross) for the quarter, less than the Plan's benchmark index performance of 0.97%. For the year, the plan return was 4.85% net, 5.11% gross, exceeding the benchmark performance of 3.38%.

City of Dover Police Pension Plan Quarterly Return Summary									
Month End	BMV	Contribution	Withdrawals	Fees	Gain	EMV	POLICE-NET RETURN	POLICE GROSS RETURN	
10/31/2018	\$ 13,792,378.00	\$ -	\$ 125,643.01	\$ 438.66	\$ (764,344.27)	\$ 12,901,952.06	-5.59%	-5.57%	
11/30/2018	\$ 12,901,952.06	\$ -	\$ 125,404.85	\$ 414.24	\$ 240,224.53	\$ 13,016,357.50	1.88%	1.90%	
12/31/2018	\$ 13,016,357.50	\$ -	\$ 125,350.28	\$ 418.34	\$ (591,716.38)	\$ 12,298,872.50	-4.59%	-4.56%	
1/31/2019	\$ 12,298,872.50	\$ -	\$ 127,771.49	\$ 398.77	\$ 788,121.53	\$ 12,958,823.77	6.47%	6.49%	
2/28/2019	\$ 12,958,823.77	\$ 610,000.00	\$ 127,693.76	\$ 415.09	\$ 294,318.10	\$ 13,735,033.02	2.22%	2.24%	
3/31/2019	\$ 13,735,033.02	\$ -	\$ 126,801.02	\$ 423.48	\$ 171,234.92	\$ 13,779,043.44	1.26%	1.28%	
4/30/2019	\$ 13,779,043.44	\$ -	\$ 126,801.02	\$ 428.64	\$ 318,704.78	\$ 13,970,518.56	2.33%	2.35%	
5/31/2019	\$ 13,970,518.56	\$ -	\$ 126,801.02	\$ 429.25	\$ (531,430.12)	\$ 13,311,858.17	-3.84%	-3.82%	
6/30/2019	\$ 13,311,858.17	\$ 271,000.00	\$ 126,801.02	\$ 420.32	\$ 618,844.10	\$ 14,074,480.93	4.68%	4.70%	
7/31/2019	\$ 14,074,480.93	\$ -	\$ 126,801.02	\$ 421.69	\$ 71,410.85	\$ 14,018,669.07	0.51%	0.53%	
8/31/2019	\$ 14,018,669.07	\$ -	\$ 126,801.02	\$ 424.25	\$ (133,181.17)	\$ 13,758,262.63	-0.96%	-0.94%	
9/30/2019	\$ 13,758,262.63	\$ -	\$ 126,801.02	\$ 421.97	\$ 149,481.86	\$ 13,780,521.50	1.10%	1.12%	
		\$ -	\$ 380,403.06	\$ 1,267.91	\$ 87,711.54		Quarterly Return	0.64%	0.70%
		\$ 881,000.00	\$ 1,519,470.53	\$ 5,054.70	\$ 631,668.73		One Year Return	4.85%	5.11%

Investment Review – Police Pension Plan

Asset Allocation at Quarter End

Plan Assets

As of Date: 9/30/2019



	Assets (\$)	Assets (%)
● Vanguard Emerging Mkts Stock Idx Instl	1,646,805.27	11.95
● Vanguard Equity-Income Adm	1,108,228.91	8.04
● Vanguard PRIMECAP Core Inv	1,026,143.06	7.45
● Morgan Stanley Inst Intl Advtg I	966,769.04	7.02
● American Funds New Perspective R6	964,627.15	7.00
● Wells Fargo Treasury Plus MMkt Inst	958,597.33	6.96
● Vanguard Short-Term Bond Index Adm	829,313.26	6.02
● Vanguard Real Estate Index Institutional	694,835.80	5.04
● PGIM High Yield R6	689,241.39	5.00
● Vanguard Inflation-Protected Secs I	686,465.78	4.98
● Vanguard Mid-Cap Value Index Admiral	554,338.23	4.02
● Vanguard Mid Cap Index Admiral	552,895.12	4.01
● Janus Henderson Small Cap Value I	551,601.51	4.00
● Federated Kaufmann Small Cap Instl	539,614.22	3.92
● Vanguard Growth Index Admiral	494,635.87	3.59
● Columbia Strategic Income Inst3	414,653.17	3.01
● Vanguard Inter-Term Bond Index Adm	414,100.35	3.01
● PIMCO Long Duration Total Return Instl	343,285.06	2.49
● Vanguard Long-Term Bond Index Investor	343,176.89	2.49
Total	13,779,327.41	100.00

- Plan is a sponsor directed defined benefit plan. Committee oversees asset allocation
- The following changes were made during the quarter:
 - Janus Henderson Small Cap Value replaced PGIM QMA Small Cap Value.
 - Morgan Stanley Inst Intl Advantage replaced Invesco Oppenheimer International Growth.
 - A minor adjustment was made to the large cap growth funds, Vanguard Primecap and Vanguard Growth Index. The total large cap growth allocation remains the same, however. Note that Vanguard Primecap is closed and no longer accepting contributions.

Monthly Performance Update

City of Dover, Police Pension Plan

As of: 9/30/2019

Asset Category	Investment Name	YTD	1 Month	3 Month	1 Year	3 Year	5 Year	Expense Ratio	Ticker
Money Market - Taxable	Wells Fargo Treasury Plus MMkt Inst	1.64	0.16	0.52	2.18	1.37	0.85	0.20	PISXX
	Wells Fargo Treasury Plus MMkt Inst	1.64	0.16	0.52	2.18	1.37	0.85		
Short-Term Bond	Vanguard Short-Term Bond Index Adm	4.47	-0.10	0.95	5.98	1.94	1.94	0.07	VBIRX
	BBgBarc US 1-5Y GovCredit FIAdj TR USD	4.48	-0.17	0.89	6.01	2.01	2.01		
Inflation-Protected Bond	Vanguard Inflation-Protected Secs I	7.63	-1.09	1.45	7.13	2.07	2.41	0.07	VIPIX
	BBgBarc US Treasury US TIPS TR USD	7.58	-1.36	1.35	7.13	2.21	2.45		
Intermediate Core Bond	Vanguard Inter-Term Bond Index Adm	10.28	-0.70	2.41	12.43	3.10	3.93	0.07	VBILX
	BBgBarc US 5-10Y GovCredit FIAdj TR USD	10.23	-0.73	2.28	12.49	3.18	4.01		
High Yield Bond	PGIM High Yield R6	12.78	0.65	1.61	8.11	6.85	6.09	0.42	PHYQX
	BBgBarc High Yield Corporate TR USD	11.41	0.36	1.33	6.36	6.07	5.37		
Nontraditional Bond	Columbia Strategic Income Inst3	8.39	0.35	0.89	7.11	4.54	4.43	0.61	CPHUX
	BBgBarc Global Aggregate TR USD	6.32	-1.02	0.72	7.60	1.59	1.99		
Long-Term Bond	Vanguard Long-Term Bond Index Instl	20.71	-2.00	6.76	22.05	5.47	6.80	0.05	VBLLX
	BBgBarc US Govt/Credit Long TR USD	20.93	-1.91	6.58	21.88	5.56	6.81		
Long-Term Bond	PIMCO Long Duration Total Return Instl	20.19	-1.83	6.51	21.02	6.23	7.21	0.97	PLRIX
	BBgBarc US Govt/Credit Long TR USD	20.93	-1.91	6.58	21.88	5.56	6.81		
Large Value	Vanguard Equity-Income Adm	17.51	3.58	2.26	6.51	11.24	9.62	0.18	VEIRX
	Russell 1000 Value TR USD	17.81	3.57	1.36	4.00	9.43	7.79		
Large Blend	Vanguard PRIMECAP Core Inv	15.73	2.38	1.46	-1.06	12.95	10.81	0.46	VPCCX
	MSCI US Prime Market 750 GR USD	20.68	1.73	1.53	4.09	13.33	10.77		
Large Growth	Vanguard Growth Index Admiral	24.88	0.24	2.00	4.52	15.38	12.19	0.05	VIGAX
	CRSP US Large Cap Growth TR USD	24.94	0.24	2.01	4.55	15.42	12.24		
Mid-Cap Value	Vanguard Mid-Cap Value Index Admiral	20.43	4.43	1.88	2.30	8.83	8.37	0.07	VMVAX
	CRSP US Mid Cap Value TR USD	20.49	4.44	1.88	2.34	8.87	8.41		
Mid-Cap Blend	Vanguard Mid Cap Index Admiral	22.60	2.07	0.61	3.65	10.67	9.20	0.05	VIMAX
	CRSP US Mid Cap TR USD	22.66	2.06	0.62	3.70	10.70	9.24		
Small Value	Janus Henderson Small Cap Value I	17.88	4.11	1.21	1.49	8.44	8.83	0.88	JSCOX
	Russell 2000 Value TR USD	12.82	5.13	-0.57	-8.24	6.54	7.17		
Small Growth	Federated Kaufmann Small Cap Instl	21.18	-4.95	-6.38	1.91	21.16	-N/A	0.91	FKAIX
	Russell 2000 Growth TR USD	15.34	-0.82	-4.17	-9.63	9.79	9.08		
Foreign Large Growth	Morgan Stanley Inst Intl Advgt I	20.08	0.75	-0.63	4.90	16.41	13.47	1.00	MFAIX
	MSCI EAFE Large Growth NR USD	19.07	1.03	-0.36	4.78	8.55	5.64		
World Large Stock	American Funds New Perspective R6	18.45	0.88	-0.42	2.88	12.38	9.72	0.45	RNPGX
	MSCI World NR USD	17.61	2.13	0.53	1.83	10.21	7.18		
Diversified Emerging Mkts	Vanguard Emerging Mkts Stock Idx Instl	8.12	1.38	-3.57	1.31	5.31	2.05	0.10	VEMIX
	FTSE EMs AC China A Incl (US RIC) NR USD	8.11	1.23	-3.63	1.16	5.41	2.34		
Real Estate	Vanguard Real Estate Index Institutional	28.20	1.90	7.42	19.92	7.10	9.96	0.10	VGSNX
	MSCI US REIT GR USD	26.82	2.86	7.69	18.31	7.26	10.11		

Investment Review – Police Pension Plan

9/30/19 Quarter End – Performance Update

		Active Fund Criteria								Index Fund Criteria					
	<u>Index Fund</u>	<u>3yr-Index</u>	<u>3yr-Peer</u>	<u>3yr-Alpha</u>	<u>3yr-Sharpe</u>	<u>5yr-Index</u>	<u>5yr-Peer</u>	<u>5yr-Alpha</u>	<u>5yr-Sharpe</u>	<u>3yr-Beta</u>	<u>3yr-TrackErr</u>	<u>5yr-Beta</u>	<u>5yr-TrackErr</u>	<u>Prospectus Net Expense Ratio</u>	<u>Mgr Rating</u>
Wells Fargo Treasury Plus MMkt Inst														0.20	
Vanguard Inflation-Protected Secs I		x	✓	✓	✓	x	✓	✓	✓					0.07	Approve
Vanguard Short-Term Bond Index Adm	Yes									✓	✓	✓	✓	0.07	-
Vanguard Interm-Term Bond Index Adm	Yes									✓	✓	✓	✓	0.07	Approve
Vanguard Long-Term Bond Index Investor	Yes									✓	✓	✓	✓	0.15	Approve
PIMCO Long Duration Total Return Instl		✓	✓	✓	x	✓	✓	✓	✓					0.97	Approve
PGIM High Yield R6		✓	✓	✓	✓	✓	✓	✓	✓					0.42	Approve
Columbia Strategic Income Inst3		✓	✓	✓	✓	✓	✓	✓	✓					0.61	Approve
Vanguard Equity-Income Adm		✓	✓	✓	✓	✓	✓	✓	✓					0.18	Approve
Vanguard PRIMECAP Core Inv		x	✓	x	✓	✓	✓	✓	✓					0.46	-
Vanguard Growth Index Admiral	Yes									✓	✓	✓	✓	0.05	Approve
Vanguard Mid-Cap Value Index Admiral	Yes									✓	✓	✓	✓	0.07	Approve
Vanguard Mid Cap Index Admiral	Yes									✓	✓	✓	✓	0.05	Approve
Janus Henderson Small Cap Value I		✓	✓	✓	✓	✓	✓	✓	✓					0.88	Approve
Federated Kaufmann Small Cap Instl		✓	✓	✓	✓									0.91	*
Morgan Stanley Inst Intl Advtg I		✓	✓	✓	✓	✓	✓	✓	✓					1.00	Approve
American Funds New Perspective R6		✓	✓	✓	✓	✓	✓	✓	✓					0.45	Approve
Vanguard Emerging Mkts Stock Idx Instl	Yes									✓	x	✓	x	0.10	-
Vanguard Real Estate Index Institutional	Yes									✓	✓	✓	✓	0.10	Approve
Police Pension Plan - Return															

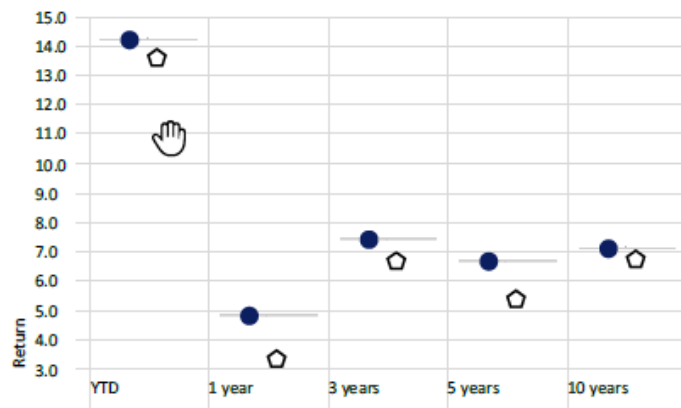
Investment Review – Police Pension Plan

9/30/19 Quarter End – Performance Update

- Majority of actively managed funds are performing well versus peers/indexes
- Returns and risk-adjusted measures for most investments rank well to peers
- Most expense ratios rank in bottom half or better to asset category peers
- Some fund underperformance/issues to be noted (details on follow pages):

Performance Versus Benchmark

Peer Group (5-95%): Display Group

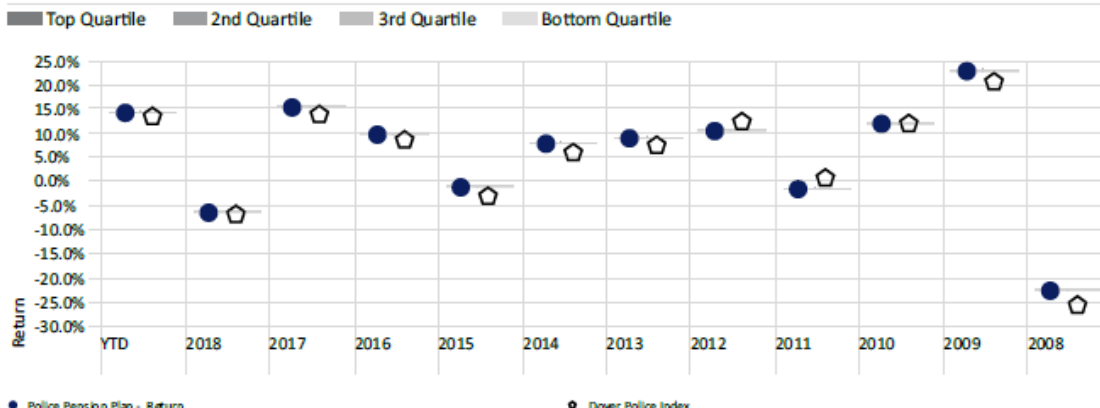


As of Date: 9/30/2019

	YTD	3 months	1 year	3 years	5 years	10 years
Police Pension Plan - Return	14.24	0.64	4.84	7.47	6.69	7.11
Dover Police Index	13.63	0.97	3.38	6.69	5.40	6.74

Performance Versus Benchmark

Peer Group (5-95%): Display Group Calculation Benchmark: Dover Police Index



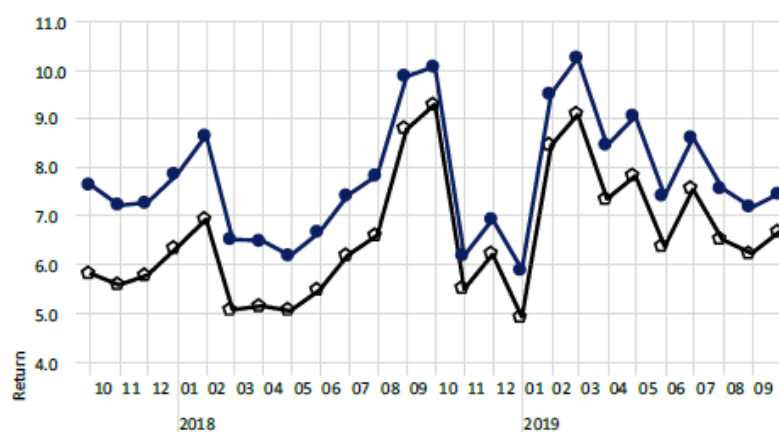
As of Date: 9/30/2019 Calculation Benchmark: Dover Police Index

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Police Pension Plan - Return	14.24	-6.40	15.51	9.86	-1.15	8.09	9.16	10.53	-1.53	12.07	22.92	-22.53
Dover Police Index	13.63	-6.79	14.12	8.61	-2.95	6.01	7.54	12.61	1.04	12.27	20.85	-25.24

Rolling Returns

Time Period: 10/1/2014 to 9/30/2019

Rolling Window: 3 Years 1 Month shift Calculation Benchmark: Dover Police Index



Police Pension Plan - Return

Dover Police Index

Key Statistics

Arithmetic Mean 1 Yr (Mo-End)

Std Dev 1 Yr (Mo-End)

Alpha 1 Yr (Mo-End)

Sharpe Ratio 1 Yr (Mo-End)

Arithmetic Mean 3 Yr (Mo-End)

Std Dev 3 Yr (Mo-End)

Alpha 3 Yr (Mo-End)

Sharpe Ratio 3 Yr (Mo-End)

Arithmetic Mean 5 Yr (Mo-End)

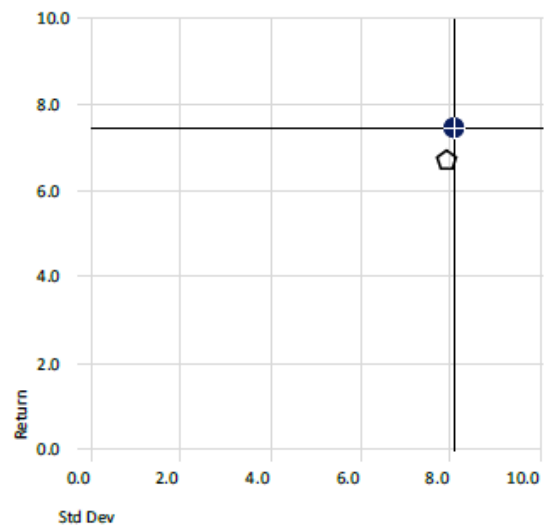
Std Dev 5 Yr (Mo-End)

Alpha 5 Yr (Mo-End)

Sharpe Ratio 5 Yr (Mo-End)

Risk-Reward

Time Period: 10/1/2016 to 9/30/2019



OPEB Plan Review

Investment Review – OPEB Plan

9/30/19 Quarter End – Performance Update

- As of quarter end, the plan had approximately \$38.6 million in assets, up from \$38.4 million at the prior quarter end.
- During the quarter, the plan had no contributions, no withdrawals/payments, and fees of approximately \$2.8 thousand.
- Total performance of the plan portfolio was 0.64% net (0.71% gross) for the quarter, less than the Plan's benchmark index performance of 1.06%. For the year, the plan return was 4.65% net, 4.94% gross, exceeding the benchmark performance of 3.51%.

City of Dover OPEB Trust Quarterly Return Summary									
Month End	BMV	Contribution	Withdrawals	Fees	Gain	EMV	OPEB-NET RETURN	OPEB-GROSS RETURN	
10/31/2018	\$ 34,725,962.19	\$ -	\$ -	\$ 2,552.18	\$ (2,018,678.47)	\$ 32,704,731.54	-5.81%	-5.79%	
11/30/2018	\$ 32,704,731.54	\$ -	\$ -	\$ -	\$ 517,373.02	\$ 33,222,104.56	1.58%	1.60%	
12/31/2018	\$ 33,222,104.56	\$ -	\$ -	\$ -	\$ (1,567,888.42)	\$ 31,654,216.14	-4.72%	-4.70%	
1/31/2019	\$ 31,654,216.14	\$ -	\$ -	\$ 2,301.37	\$ 2,177,270.59	\$ 33,829,185.36	6.88%	6.90%	
2/28/2019	\$ 33,829,185.36	\$ 1,915,000.00	\$ -	\$ -	\$ 777,771.11	\$ 36,521,956.47	2.21%	2.23%	
3/31/2019	\$ 36,521,956.47	\$ -	\$ -	\$ -	\$ 484,333.31	\$ 37,006,289.78	1.33%	1.35%	
4/30/2019	\$ 37,006,289.78	\$ -	\$ -	\$ 2,693.88	\$ 932,226.30	\$ 37,935,822.20	2.52%	2.54%	
5/31/2019	\$ 37,935,822.20	\$ -	\$ -	\$ -	\$ (1,532,397.10)	\$ 36,403,425.10	-4.04%	-4.02%	
6/30/2019	\$ 36,403,425.10	\$ 270,000.00	\$ -	\$ -	\$ 1,733,523.41	\$ 38,406,948.51	4.76%	4.78%	
7/31/2019	\$ 38,406,948.51	\$ -	\$ -	\$ 2,775.36	\$ 224,488.66	\$ 38,628,661.81	0.58%	0.61%	
8/31/2019	\$ 38,628,661.81	\$ -	\$ -	\$ -	\$ (407,777.36)	\$ 38,220,884.45	-1.06%	-1.03%	
9/30/2019	\$ 38,220,884.45	\$ -	\$ -	\$ -	\$ 428,356.52	\$ 38,649,240.97	1.12%	1.14%	
		\$ -	\$ -	\$ 2,775.36	\$ 245,067.82		Quarterly Return	0.64%	0.71%
		\$ 2,185,000.00	\$ -	\$ 10,322.79	\$ 1,748,601.57		One Year Return	4.65%	4.94%

Investment Review – OPEB Plan

Asset Allocation at Quarter End

Plan Assets

As of Date: 9/30/2019



	Assets (\$)	Assets (%)
● Vanguard Emerging Mkts Stock Idx Instl	4,619,362.41	11.95
● Vanguard Growth Index Institutional	4,268,143.78	11.04
● Vanguard Mid-Cap Value Index Admiral	3,109,362.97	8.04
● American Funds Washington Mutual R6	3,094,089.67	8.01
● Morgan Stanley Inst Intl Advtg I	2,711,453.27	7.02
● Janus Henderson Small Cap Value I	2,707,339.81	7.00
● American Funds New Perspective R6	2,705,702.45	7.00
● Vanguard Short-Term Bond Index Adm	2,325,901.76	6.02
● Vanguard Real Estate Index Institutional	1,948,587.30	5.04
● PGIM High Yield R6	1,933,113.66	5.00
● Columbia Strategic Income Inst3	1,744,381.36	4.51
● Vanguard Inflation-Protected Secs I	1,540,403.15	3.99
● Federated Kaufmann Small Cap Instl	1,514,138.97	3.92
● Wells Fargo Treasury Plus MMkt Inst	1,147,517.81	2.97
● Vanguard Total Bond Market Index Adm	871,720.33	2.26
● Dodge & Cox Income	870,006.59	2.25
● PIMCO Long Duration Total Return Instl	770,327.76	1.99
● Vanguard Long-Term Bond Index Investor	770,091.71	1.99
Total	38,651,644.76	100.00

- Plan is a sponsor directed defined benefit plan. Committee oversees asset allocation
- The following changes were made during the quarter:
 - Janus Henderson Small Cap Value replaced PGIM QMA Small Cap Value.
 - Morgan Stanley Inst Intl Advantage replaced Invesco Oppenheimer International Growth.

Monthly Performance Update

City of Dover, OPEB Plan

As of: 9/30/2019

Asset Category	Investment Name	YTD	1 Month	3 Month	1 Year	3 Year	5 Year	Expense	Ticker
								Ratio	
Money Market - Taxable	Wells Fargo Treasury Plus MMkt Inst	1.64	0.16	0.52	2.18	1.37	0.85	0.20	PISXX
	Wells Fargo Treasury Plus MMkt Inst	1.64	0.16	0.52	2.18	1.37	0.85		
Short-Term Bond	Vanguard Short-Term Bond Index Adm	4.47	-0.10	0.95	5.98	1.94	1.94	0.07	VBIRX
	BBgBarc US 1-5Y GovCredit FIAdj TR USD	4.48	-0.17	0.89	6.01	2.01	2.01		
Inflation-Protected Bond	Vanguard Inflation-Protected Secs I	7.63	-1.09	1.45	7.13	2.07	2.41	0.07	VIPIX
	BBgBarc US Treasury US TIPS TR USD	7.58	-1.36	1.35	7.13	2.21	2.45		
Intermediate Core-Plus Bond	Dodge & Cox Income	8.81	-0.07	2.09	9.13	3.79	3.70	0.42	DODIX
	BBgBarc US 5-10Y GovCredit FIAdj TR USD	10.23	-0.73	2.28	12.49	3.18	4.01		
Intermediate Core Bond	Vanguard Total Bond Market Index Adm	8.68	-0.59	2.43	10.43	2.90	3.35	0.05	VBTLX
	BBgBarc US Agg Float Adj TR USD	8.72	-0.58	2.33	10.44	2.96	3.40		
High Yield Bond	PGIM High Yield R6	12.78	0.65	1.61	8.11	6.85	6.09	0.42	PHYQX
	BBgBarc High Yield Corporate TR USD	11.41	0.36	1.33	6.36	6.07	5.37		
Nontraditional Bond	Columbia Strategic Income Inst3	8.39	0.35	0.89	7.11	4.54	4.43	0.61	CPHUX
	BBgBarc Global Aggregate TR USD	6.32	-1.02	0.72	7.60	1.59	1.99		
Long-Term Bond	Vanguard Long-Term Bond Index Investor	20.62	-2.00	6.74	21.93	5.37	6.70	0.15	VBLTX
	BBgBarc US Govt/Credit Long TR USD	20.93	-1.91	6.58	21.88	5.56	6.81		
Long-Term Bond	PIMCO Long Duration Total Return Instl	20.19	-1.83	6.51	21.02	6.23	7.21	0.97	PLRIX
	BBgBarc US Govt/Credit Long TR USD	20.93	-1.91	6.58	21.88	5.56	6.81		
Large Blend	American Funds Washington Mutual R6	16.96	1.69	1.69	6.14	13.19	10.09	0.27	RWMGX
	Russell 1000 Value TR USD	17.81	3.57	1.36	4.00	9.43	7.79		
Large Growth	Vanguard Growth Index Institutional	24.89	0.23	1.99	4.52	15.39	12.20	0.04	VIGIX
	CRSP US Large Cap Growth TR USD	24.94	0.24	2.01	4.55	15.42	12.24		
Mid-Cap Value	Vanguard Mid-Cap Value Index Admiral	20.43	4.43	1.88	2.30	8.83	8.37	0.07	VMVAX
	CRSP US Mid Cap Value TR USD	20.49	4.44	1.88	2.34	8.87	8.41		
Small Value	Janus Henderson Small Cap Value I	17.88	4.11	1.21	1.49	8.44	8.83	0.88	JSCOX
	Russell 2000 Value TR USD	12.82	5.13	-0.57	-8.24	6.54	7.17		
Small Growth	Federated Kaufmann Small Cap Instl	21.18	-4.95	-6.38	1.91	21.16	-N/A	0.91	FKAIX
	Russell 2000 Growth TR USD	15.34	-0.82	-4.17	-9.63	9.79	9.08		
Foreign Large Growth	Morgan Stanley Inst Intl Advtg I	20.08	0.75	-0.63	4.90	16.41	13.47	1.00	MFAIX
	MSCI EAFE Large Growth NR USD	19.07	1.03	-0.36	4.78	8.55	5.64		
World Large Stock	American Funds New Perspective R6	18.45	0.88	-0.42	2.88	12.38	9.72	0.45	RNPGX
	MSCI World NR USD	17.61	2.13	0.53	1.83	10.21	7.18		
Diversified Emerging Mkts	Vanguard Emerging Mkts Stock Idx Instl	8.12	1.38	-3.57	1.31	5.31	2.05	0.10	VEMIX
	FTSE EMs AC China A Incl (US RIC) NR USD	8.11	1.23	-3.63	1.16	5.41	2.34		
Real Estate	Vanguard Real Estate Index Institutional	28.20	1.90	7.42	19.92	7.10	9.96	0.10	VGSNX
	MSCI US REIT GR USD	26.82	2.86	7.69	18.31	7.26	10.11		

Investment Review – OPEB Plan

9/30/19 Quarter End – Performance Update

		Active Fund Criteria								Index Fund Criteria				Prospectus Net Expense Ratio	Mgr Rating
Index Fund		3yr-Index	3yr-Peer	3yr-Alpha	3yr-Sharpe	5yr-Index	5yr-Peer	5yr-Alpha	5yr-Sharpe	3yr-Beta	3yr-TrackErr	5yr-Beta	5yr-TrackErr		
Wells Fargo Treasury Plus MMkt Inst														0.20	
Vanguard Inflation-Protected Secs I		x	✓	✓	✓	x	✓	✓	✓					0.07	Approve
Vanguard Short-Term Bond Index Adm	Yes									✓	✓	✓	✓	0.07	-
Dodge & Cox Income		✓	✓	✓	✓	✓	✓	✓	✓					0.42	Approve
Vanguard Total Bond Market Index Adm	Yes									✓	✓	✓	✓	0.05	Approve
Vanguard Long-Term Bond Index Investor	Yes									✓	✓	✓	✓	0.15	Approve
PIMCO Long Duration Total Return Instl		✓	✓	✓	x	✓	✓	✓	✓					0.97	Approve
PGIM High Yield R6		✓	✓	✓	✓	✓	✓	✓	✓					0.42	Approve
Columbia Strategic Income Inst3		✓	✓	✓	✓	✓	✓	✓	✓					0.61	Approve
American Funds Washington Mutual R6		✓	✓	✓	✓	✓	✓	✓	✓					0.27	Approve
Vanguard Growth Index Institutional	Yes									✓	✓	✓	✓	0.04	Approve
Vanguard Mid-Cap Value Index Admiral	Yes									✓	✓	✓	✓	0.07	Approve
Janus Henderson Small Cap Value I		✓	✓	✓	✓	✓	✓	✓	✓					0.88	Approve
Federated Kaufmann Small Cap Instl		✓	✓	✓	✓									0.91	*
Morgan Stanley Inst Intl Advtg I		✓	✓	✓	✓	✓	✓	✓	✓					1.00	Approve
American Funds New Perspective R6		✓	✓	✓	✓	✓	✓	✓	✓					0.45	Approve
Vanguard Emerging Mkts Stock Idx Instl	Yes									✓	x	✓	x	0.10	-
Vanguard Real Estate Index Institutional	Yes									✓	✓	✓	✓	0.10	Approve
OPEB Plan - Return															

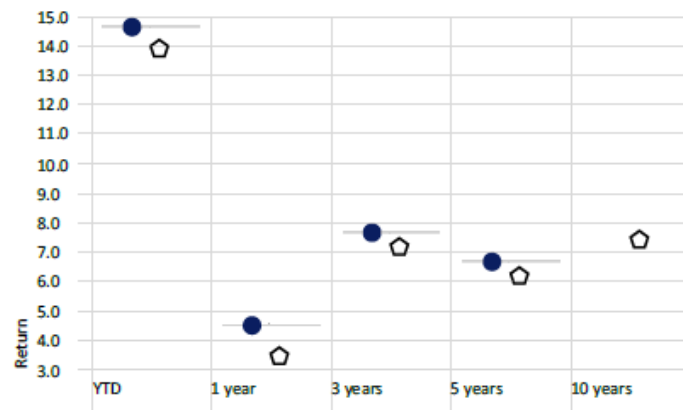
Investment Review – OPEB Plan

9/30/19 Quarter End – Performance Update

- Majority of actively managed funds are performing well versus peers/indexes
- Returns and risk-adjusted measures for most investments rank well to peers
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- Some fund underperformance/issues to be noted (details on follow pages):

Performance Versus Benchmark

Peer Group (5-95%): Display Group

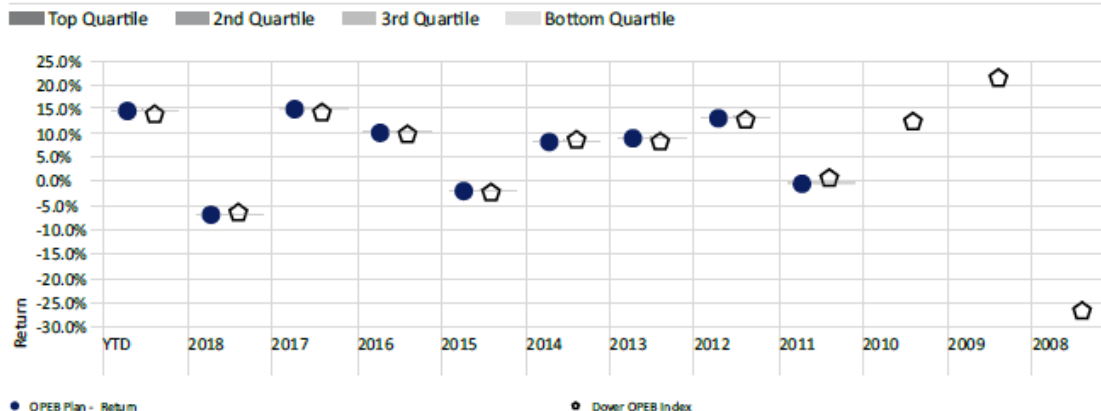


As of Date: 9/30/2019

	YTD	3 months	1 year	3 years	5 years	10 years
OPEB Plan - Return	14.70	0.55	4.56	7.68	6.70	
Dover OPEB Index	13.95	1.06	3.51	7.20	6.21	7.44

Performance Versus Benchmark

Peer Group (5-95%): Display Group Calculation Benchmark: Dover OPEB Index



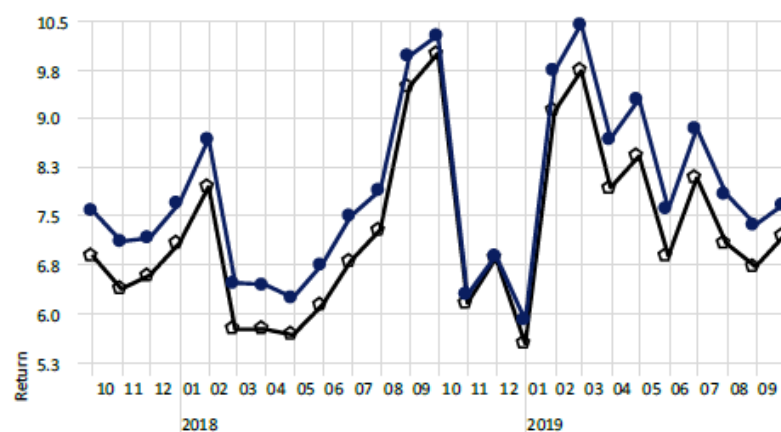
As of Date: 9/30/2019 Calculation Benchmark: Dover OPEB Index

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
OPEB Plan - Return	14.70	-6.62	15.24	10.36	-1.78	8.44	9.30	13.10	-0.36			
Dover OPEB Index	13.95	-6.40	14.39	9.81	-2.25	8.74	8.32	12.97	0.89	12.58	21.55	-26.42

Rolling Returns

Time Period: 10/1/2014 to 9/30/2019

Rolling Window: 3 Years 1 Month shift Calculation Benchmark: Dover OPEB Index



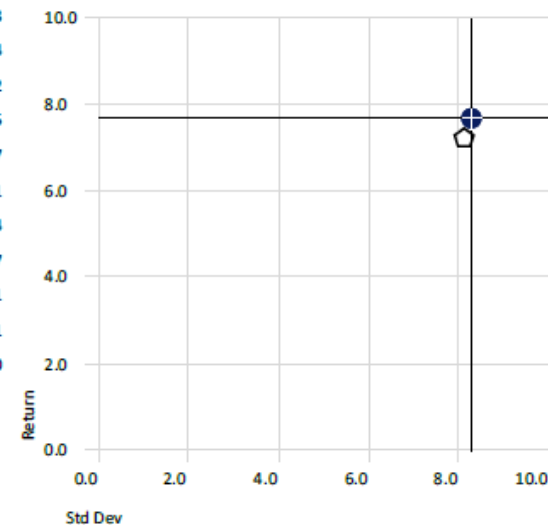
■ OPEB Plan - Return ■ Dover OPEB Index

Key Statistics

Arithmetic Mean 1 Yr (Mo-End) 0.44
 Std Dev 1 Yr (Mo-End) 13.13
 Alpha 1 Yr (Mo-End) 0.54
 Sharpe Ratio 1 Yr (Mo-End) 0.22
 Arithmetic Mean 3 Yr (Mo-End) 0.65
 Std Dev 3 Yr (Mo-End) 8.27
 Alpha 3 Yr (Mo-End) -1.51
 Sharpe Ratio 3 Yr (Mo-End) 0.74
 Arithmetic Mean 5 Yr (Mo-End) 0.57
 Std Dev 5 Yr (Mo-End) 8.31
 Alpha 5 Yr (Mo-End) -0.81
 Sharpe Ratio 5 Yr (Mo-End) 0.70

Risk-Reward

Time Period: 10/1/2016 to 9/30/2019



Additional Details Individual Fund Comments

Individual Fund Comments

9/30/19 Quarter End

- Vanguard Short Term Bond Index (all three Plans)
 - One year beta statistic of 0.93 is slightly low, however 3 and 5 year statistics are closer to 1.0. We would expect this to be near 1.0.
 - Periodic returns are within a couple of basis points of the benchmark.

- Vanguard PRIMECAP Core (EE and Police Plans)
 - Fund is trailing its benchmark for the YTD and one yr periods. Rank versus peers has dropped to below median for the one year period, but ranks in the top quartile for all longer periods.
 - Risk adjusted measures alpha and Sharpe have dropped below the peer group median over 3 years.

- Vanguard Emerging Markets Stock Index (all three Plans)
 - This fund made a benchmark change in 2016. Slightly elevated tracking error as a result.
 - Utilizes a fair value pricing process, that may lead to some periodic diversions from its benchmark.

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To:	City of Dover, Delaware Employees' Pension Plan – Board
From:	Jeff Marzinsky – Milliman
Re:	Board Meeting Notes

Enclosures: Milliman Quarterly Investment Monitor Report (QIM)

1. General Employees' Pension Plan Investment Review through quarter end:

- a. As of quarter end, the plan had approximately \$44.0 million in assets, down from \$44.7 million at the prior quarter end. During the quarter, the plan had no contributions, withdrawals/payments of approximately \$1.0 million, and fees of approximately \$4.5 thousand.
- b. Total performance of the plan portfolio was 0.66% net (0.72% gross) for the quarter, trailing the Plan's benchmark index performance of 1.10%. For the year, the plan return was 5.20% net, 5.46% gross, beating the plan's index performance of 3.77%.

City of Dover General Employees Pension Plan Quarterly Return Summary									
Month End	BMV	Contribution	Withdrawals	Fees	Gain	EMV	CIVILIAN-NET RETURN	CIVILIAN- GROSS RETURN	
10/31/2018	\$ 43,782,653.27	\$ -	\$ 336,208.37	\$ 1,524.13	\$ (2,383,187.97)	\$ 41,061,732.80	-5.48%	-5.46%	
11/30/2018	\$ 41,061,732.80	\$ -	\$ 336,896.12	\$ 1,459.54	\$ 748,659.44	\$ 41,472,036.58	1.84%	1.86%	
12/31/2018	\$ 41,472,036.58	\$ -	\$ 338,873.56	\$ 1,474.61	\$ (1,824,192.56)	\$ 39,307,495.85	-4.43%	-4.41%	
1/31/2019	\$ 39,307,495.85	\$ -	\$ 335,655.83	\$ 1,433.52	\$ 2,532,016.14	\$ 41,502,422.64	6.49%	6.51%	
2/28/2019	\$ 41,502,422.64	\$ 1,000,000.00	\$ 335,615.48	\$ 1,503.57	\$ 931,484.89	\$ 43,096,788.48	2.22%	2.24%	
3/31/2019	\$ 43,096,788.48	\$ -	\$ 334,593.38	\$ 1,495.46	\$ 548,536.36	\$ 43,309,236.00	1.28%	1.30%	
4/30/2019	\$ 43,309,236.00	\$ -	\$ 335,615.48	\$ 1,502.17	\$ 1,002,256.90	\$ 43,974,375.25	2.33%	2.35%	
5/31/2019	\$ 43,974,375.25	\$ -	\$ 336,165.85	\$ 1,518.80	\$ (1,661,895.09)	\$ 41,974,795.51	-3.81%	-3.79%	
6/30/2019	\$ 41,974,795.51	\$ 1,100,000.00	\$ 336,165.85	\$ 1,495.78	\$ 1,956,389.82	\$ 44,693,523.70	4.68%	4.70%	
7/31/2019	\$ 44,693,523.70	\$ -	\$ 336,165.85	\$ 1,503.69	\$ 228,370.65	\$ 44,584,224.81	0.51%	0.54%	
8/31/2019	\$ 44,584,224.81	\$ -	\$ 336,342.31	\$ 1,523.79	\$ (414,185.99)	\$ 43,832,172.72	-0.94%	-0.91%	
9/30/2019	\$ 43,832,172.72	\$ -	\$ 335,989.39	\$ 1,516.84	\$ 473,431.32	\$ 43,968,097.81	1.09%	1.11%	
		\$ -	\$ 1,008,497.55	\$ 4,544.32	\$ 287,615.98		Quarterly Return	0.66%	0.72%
		\$ 2,100,000.00	\$ 4,034,287.47	\$ 17,951.90	\$ 2,137,683.91		One Year Return	5.20%	5.46%

- c. The chart below describes the current target allocation for the plan.

Category Description	Fund Category	Investment Name	Target Allocation with Additional Asset Classes	Asset Allocation Range
Money Market	CA	Wells Fargo Advtg Treas Plus MMkt	6.00%	6-16%; target 11% Cash + STB
Short Term Bonds	STB	Vanguard Short Term Bond	5.00%	6-16%; target 11% Cash + STB
Non-traditional bond	NTB	Columbia Strategic Income	4.00%	0-9%; target of 4% NTB
Inflation Protected Bonds	TIPS	Vanguard Inflation Prot Sec	5.00%	0-10%; target of 5% TIPS
Intermediate Term Bonds	INTB	Vanguard Intermediate Bond	4.00%	0-9%; target 4% INTB
Long Term Bonds	LTB	PIMCO Long Duration	2.50%	0-10%; target 5% LTB
Long Term Bonds	LTB	Vanguard Long Duration	2.50%	0-10%; target 5% LTB
High Yield Bond	HYB	Prudential High Yield	5.00%	0-10%; target 5% HYB
Large Cap Value	LCV	Vanguard Equity Income	8.00%	3-13%; target 8% LCV
Large Cap Growth	LCG	Vanguard Primecap	7.33%	CLOSED - no longer accepting contributions
Large Cap Growth	LCG	Vanguard Growth Index	3.67%	6-16%; target 11% LCG
Mid Cap	MCB	Vanguard Mid Cap Index	4.00%	3-13%; target 8% MC
Mid Cap	MCV	Vanguard Mid Cap Value Index	4.00%	3-13%; target 8% MC
Small Cap	SCV	Prudential Small Cap Val	0.00%	REPLACED 2019-9-25
Small Cap	SCV	Janus Henderson Small Cap Value	4.00%	3-13%; target 8% SC
Small Cap	SCG	Federated Kaufmann Small Cap	4.00%	3-13%; target 8% SC
Real Estate Investment	REIT	Vanguard REIT Index	5.00%	0-10%; target 5% REIT
Foreign Equity	GLB	American Funds New Perspective	7.00%	9-19%; target 14% FOR
Foreign Equity	FLG	Oppenheimer International Growth Y	0.00%	REPLACED 2019-9-25
Foreign Equity	FLG	Morgan Stanley Instl Intl Adv	7.00%	9-19%; target 14% FOR
Emerging Markets	EMG	Vanguard Emerging Mkts	12.00%	7-17%; target 12% Emg Mkts

- d. The target allocation was unchanged during the quarter aside from the following:
- Janus Henderson Small Cap Value replaced PGIM QMA Small Cap Value.
 - Morgan Stanley Inst Intl Advantage replaced Invesco Oppenheimer International Growth.
 - A minor adjustment was made to the large cap growth funds, Vanguard Primecap and Vanguard Growth Index. The total large cap growth allocation remains the same, however. Note that Vanguard Primecap is closed and no longer accepting contributions.
- e. A Portfolio Scorecard is utilized to review fund performance based on a variety of analytic measures, as well as focusing on specific asset category, investment style (active or passive), and socially conscious nature of the individual investments. The following grid indicates whether a fund meets these various quantitative measures by displaying a “√” (check) mark, or does not meet the criteria by displaying an “x” (x-mark). “Watch” means that the fund is not meeting criteria and is trailing in performance compared to both its peer group and benchmarks. A “-” mark means that the fund is trailing in some areas of review, but not currently enough to fall to “Watch”. A “*” indicates that the fund has less than 5 years of data.

In the following exhibit, Milliman’s analytic review indicates that nearly all of the funds meet the screens for each asset class peer group, as designated with “Approve” status under “Mgr Rating”.

Manager - Investment Policy Review

Index Fund	Active Fund Criteria								Index Fund Criteria				Prospectus Net Expense Ratio	Mgr Rating
	3Yr-Index	3Yr-Peer	3Yr-Alpha	3Yr-Sharpe	5Yr-Index	5Yr-Peer	5Yr-Alpha	5Yr-Sharpe	3Yr-Beta	3Yr-TrackErr	5Yr-Beta	5Yr-TrackErr		
Wells Fargo Treasury Plus MMkt Inst													0.20	
Vanguard Inflation-Protected Secs I	x	√	√	√	x	√	√	√					0.07	Approve
Vanguard Short-Term Bond Index Adm	Yes								√	√	√	√	0.07	-
Vanguard Inter-Term Bond Index Adm	Yes								√	√	√	√	0.07	Approve
Vanguard Long-Term Bond Index Instl	Yes								√	√	√	√	0.05	Approve
PIMCO Long Duration Total Return Instl	√	√	√	x	√	√	√	√					0.97	Approve
PGIM High Yield R6	√	√	√	√	√	√	√	√					0.42	Approve
Columbia Strategic Income Inst3	√	√	√	√	√	√	√	√					0.61	Approve
Vanguard Equity-Income Adm	√	√	√	√	√	√	√	√					0.18	Approve
Vanguard PRIMECAP Core Inv	x	√	x	√	√	√	√	√					0.46	-
Vanguard Growth Index Admiral	Yes								√	√	√	√	0.05	Approve
Vanguard Mid-Cap Value Index Admiral	Yes								√	√	√	√	0.07	Approve
Vanguard Mid Cap Index Admiral	Yes								√	√	√	√	0.05	Approve
Janus Henderson Small Cap Value I	√	√	√	√	√	√	√	√					0.88	Approve
Federated Kaufmann Small Cap Instl	√	√	√	√									0.91	*
Morgan Stanley Inst Intl Advtg I	√	√	√	√	√	√	√	√					1.00	Approve
American Funds New Perspective R6	√	√	√	√	√	√	√	√					0.45	Approve
Vanguard Emerging Mkts Stock Idx Instl	Yes								√	x	√	x	0.10	-
Vanguard Real Estate Index Institutional	Yes								√	√	√	√	0.10	Approve
Employee Plan - Return														

- f. Comments on specific funds:
- Vanguard Short Term Bond Index
 - The 1 year beta statistic of 0.93 is a little low, however 3 and 5 year statistics are closer to 1.0.
 - No formal watch is necessary.
 - Vanguard PRIMECAP Core
 - The fund is trailing its index in the near-term and over 3 years. Rank versus peers has dropped to the bottom quartile over 1 year.
 - Risk adjusted measures alpha and Sharpe have also dropped below the peer group median over 3 years.
 - We will continue to monitor the fund, but no formal watch is necessary at this time.

iii. Vanguard Emerging Markets Stock Index

- This fund made a benchmark change in 2016. We will see elevated tracking error for a few more quarters as a result.
- No formal watch is necessary.

The analysis in this report was prepared utilizing data from third parties and other sources including but not limited to internal computer software and databases, including among others mpiStylus Pro®, software designed by Markov Processes International, Morningstar. Reasonable care has been taken to assure the accuracy of the data contained herein, and comments are objectively stated and are based on facts gathered in good faith. These reports do not constitute investment advice with respect to the sale or disposition of individual securities. Milliman disclaims responsibility, financial or otherwise, for the accuracy or completeness of this report.

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These estimates are subject to the uncertainties of a regular actuarial valuation; the estimates are inexact because they are based on assumptions that are themselves necessarily inexact, even though we consider them reasonable. Thus, the emerging liabilities and market returns may vary from those presented in this report to the extent actual experience differs from that projected by the actuarial assumptions. The analysis in this report was prepared utilizing data from third parties and other sources including but not limited to internal computer software and databases. Reasonable care has been taken to assure the accuracy of the data contained herein, and comments are objectively stated and are based on facts gathered in good faith. On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this analysis is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices.

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Quarterly Investment Monitor

Prepared for:

CITY OF DOVER, DELAWARE GENERAL EMPLOYEE PENSION PLAN

As of: 9/30/2019

Milliman, Inc.
New York

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SECTION I - Market Update

Market Commentary

Markets declined during August amid increasing trade war tensions and fears of a recession in the US. Global equity markets staged a rebound during September, only to pull back at the end of the quarter.

U.S. stocks rose modestly during the quarter, with increased volatility. The Dow finished the quarter up 1.83%, while the S&P 500 rose 1.70%. The Russell Mid Cap Index rose 0.48% and the Russell 2000 fell 2.40%. Across market caps, large value and growth finished similarly, while value outpaced growth in small and mid-caps.

International equity markets finished the quarter in negative territory. The MSCI EAFE was down 1.07%, while the MSCI EAFE Small Cap Index fell 0.44%. The MSCI Emerging Markets Index fell 4.25%. Globally, we continue to see trade war tensions negatively influencing equity markets.

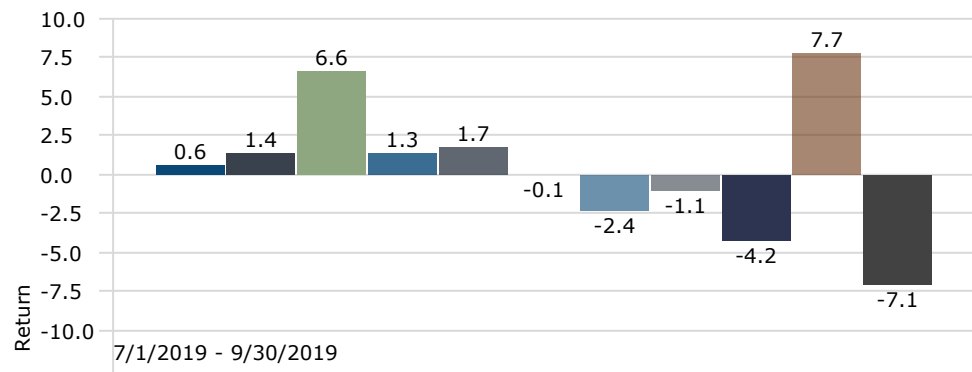
The FOMC (Fed) made a 25-basis point reduction in interest rates in both July and September. The Fed indicated that the labor market remains strong and economic activity has been rising at a moderate rate, with low unemployment and solid job gains. However, the Fed indicated business investment and exports have weakened, the global economic outlook remains uncertain and inflation is running below the 2% target.

Unemployment remained at the 3.7% achieved during June. Initial jobless claims dipped earlier in the quarter, but have trended back up to the 215,000 range. GDP growth has indicated some slowing in the economy with a current rate in the 2% range.

Crude oil rose prices averaged \$55 a barrel during the quarter, even with the attack on Saudi facilities during September. Oil was \$54 a barrel at the end of the quarter.

Milliman - Periodic Table

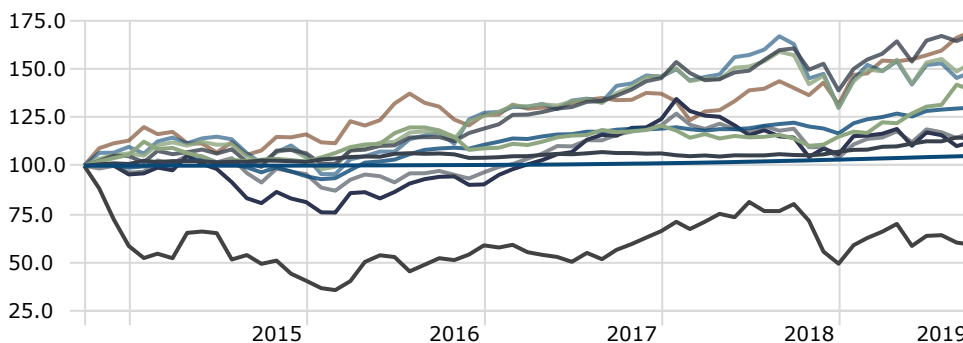
As of Date: 9/30/2019



■ BofAML US Treasury Bill 3 Mon TR USD
 ■ BBgBarc US Corporate High Yield TR USD
 ■ Russell 2000 TR USD
 ■ FTSE NAREIT All Equity REITs TR USD
 ■ BBgBarc US Govt/Credit Interm TR USD
 ■ S&P 500 TR USD
 ■ MSCI EAFE NR USD
 ■ WTexas Crude Int Oil BL
 ■ BBgBarc US Govt/Credit Long TR USD
 ■ S&P MidCap 400 TR
 ■ MSCI EM NR USD

Milliman - Periodic Table

Time Period: 10/1/2014 to 9/30/2019



■ BofAML US Treasury Bill 3 Mon TR USD
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 ■ WTexas Crude Int Oil BL
 ■ BBgBarc US Govt/Credit Long TR USD
 ■ S&P MidCap 400 TR
 ■ MSCI EM NR USD

Milliman - Market Update

Data Point: Return

	QTR	YTD	1 Year	3 Years	5 Years	10 Years	15 Years
BofAML US Treasury Bill 3 Mon TR USD	0.56	1.81	2.39	1.54	0.98	0.54	1.39
Barclays US Treasury US TIPS TR USD	1.35	7.58	7.13	2.21	2.45	3.46	3.90
Barclays US Govt/Credit 1-3 Yr TR USD	0.69	3.42	4.64	1.82	1.59	1.52	2.43
Barclays US Govt/Credit Interm TR USD	1.37	6.41	8.17	2.40	2.68	3.05	3.59
Barclays US Govt/Credit Long TR USD	6.58	20.93	21.88	5.56	6.81	7.42	6.94
Barclays US Corporate High Yield TR USD	1.33	11.41	6.36	6.07	5.37	7.94	7.33
DJ Industrial Average TR USD	1.83	17.51	4.21	16.44	12.28	13.56	9.51
Russell 1000 Value TR USD	1.36	17.81	4.00	9.43	7.79	11.46	7.82
S&P 500 TR USD	1.70	20.55	4.25	13.39	10.84	13.24	9.01
Russell 1000 Growth TR USD	1.49	23.30	3.71	16.89	13.39	14.94	10.40
S&P MidCap 400 TR	-0.09	17.87	-2.49	9.38	8.88	12.56	9.82
Russell 2000 TR USD	-2.40	14.18	-8.89	8.23	8.19	11.19	8.19
MSCI EAFE NR USD	-1.07	12.80	-1.34	6.48	3.27	4.90	5.29
MSCI EAFE Small Cap NR USD	-0.44	12.05	-5.93	5.94	6.02	7.45	7.35
MSCI EM NR USD	-4.25	5.89	-2.02	5.97	2.33	3.37	7.82
FTSE NAREIT All REITs TR	7.24	27.37	19.58	9.02	10.90	13.30	8.76
Bloomberg Commodity TR USD	-1.84	3.13	-6.57	-1.50	-7.18	-4.32	-3.13
WTexas Crude Int Oil BL	-7.06	19.80	-26.07	4.27	-9.91	-2.61	0.58

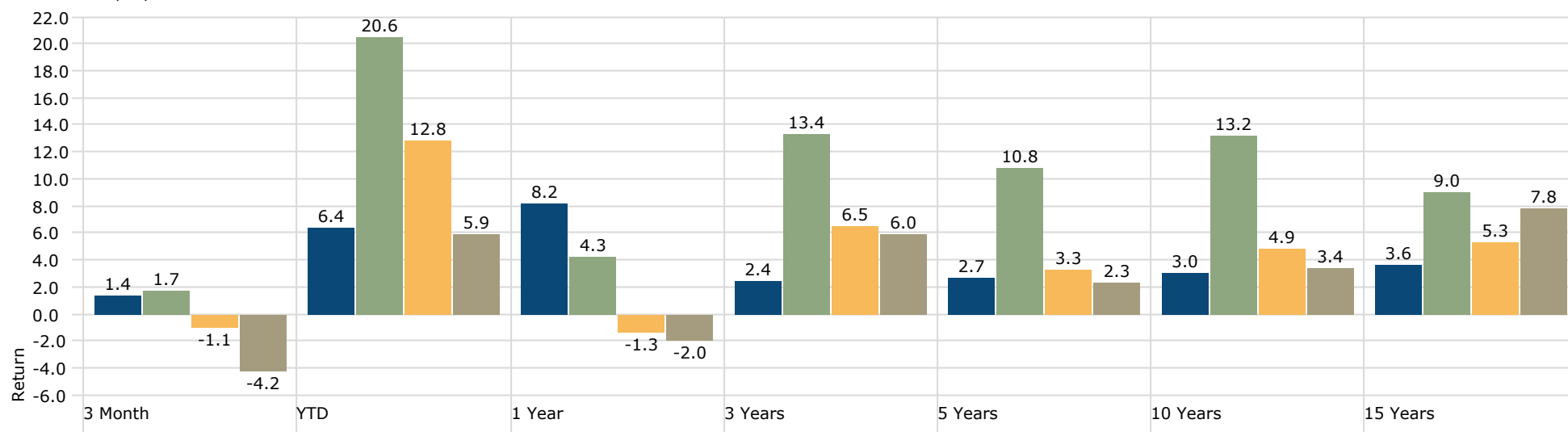
Milliman - Market Update

Time Period: 10/1/2018 to 9/30/2019

	BofAML US Treasury Bill 3 Mon TR USD	Barclays US Treasury US TIPS TR USD	Barclays US Govt/Credit 1-3 Yr TR USD	Barclays US Govt/Credit Interm TR USD	Barclays US Govt/Credit Long TR USD	Barclays US Corporate High Yield TR USD	DJ Industrial Average TR USD	Russell 1000 Value TR USD	S&P 500 TR USD	Russell 1000 Growth TR USD	S&P MidCap 400 TR	Russell 2000 TR USD	MSCI EAFE NR USD	MSCI EAFE Small Cap NR USD	MSCI EM NR USD	FTSE NAREIT All REITs TR	Bloomberg Commodity TR USD	WTexas Crude Int Oil BL
2018-10	0.17	-1.43	0.11	-0.14	-3.35	-1.60	-4.98	-5.18	-6.84	-8.94	-9.55	-10.86	-7.96	-9.63	-8.71	-2.62	-2.16	-10.73
2018-11	0.21	0.48	0.29	0.45	0.55	-0.86	2.11	2.99	2.04	1.06	3.12	1.59	-0.13	-0.70	4.12	4.49	-0.56	-22.25
2018-12	0.18	0.55	0.78	1.34	3.70	-2.14	-8.59	-9.60	-9.03	-8.60	-11.32	-11.88	-4.85	-6.45	-2.65	-7.73	-6.89	-11.09
2019-01	0.20	1.35	0.39	0.87	2.24	4.52	7.29	7.78	8.01	8.99	10.46	11.25	6.57	8.06	8.76	11.42	5.45	19.25
2019-02	0.18	-0.01	0.16	0.09	-0.55	1.66	4.03	3.20	3.21	3.58	4.24	5.20	2.55	2.24	0.22	0.50	1.01	6.26
2019-03	0.22	1.84	0.66	1.35	4.70	0.94	0.17	0.64	1.94	2.85	-0.57	-2.09	0.63	0.16	0.84	4.22	-0.18	5.21
2019-04	0.19	0.33	0.23	0.19	-0.40	1.42	2.66	3.55	4.05	4.52	4.02	3.40	2.81	3.02	2.11	-0.06	-0.42	6.05
2019-05	0.23	1.65	0.69	1.31	4.13	-1.19	-6.32	-6.43	-6.35	-6.32	-7.97	-7.78	-4.80	-5.29	-7.26	0.20	-3.36	-16.20
2019-06	0.22	0.86	0.56	1.07	2.78	2.28	7.31	7.18	7.05	6.87	7.64	7.07	5.93	4.24	6.24	1.63	2.69	8.81
2019-07	0.18	0.36	-0.06	-0.03	0.73	0.56	1.12	0.83	1.44	2.26	1.19	0.58	-1.27	-0.71	-1.22	1.58	-0.67	0.57
2019-08	0.21	2.38	0.81	1.77	7.87	0.40	-1.32	-2.94	-1.58	-0.77	-4.19	-4.94	-2.59	-2.47	-4.88	3.40	-2.32	-5.91
2019-09	0.17	-1.36	-0.05	-0.36	-1.91	0.36	2.05	3.57	1.87	0.01	3.06	2.08	2.87	2.81	1.91	2.11	1.17	-1.78

Milliman - Broad Market

As of Date: 9/30/2019



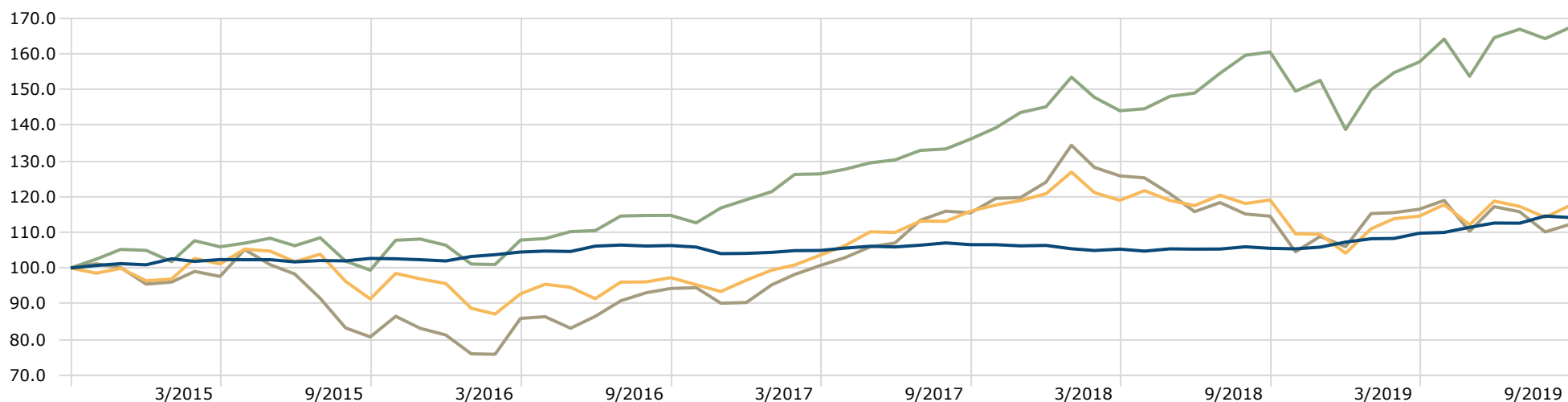
Barclays US Govt/Credit Interm TR USD
MSCI EM NR USD

S&P 500 TR USD

MSCI EAFE NR USD

Milliman - Broad Market

Time Period: 10/1/2014 to 9/30/2019



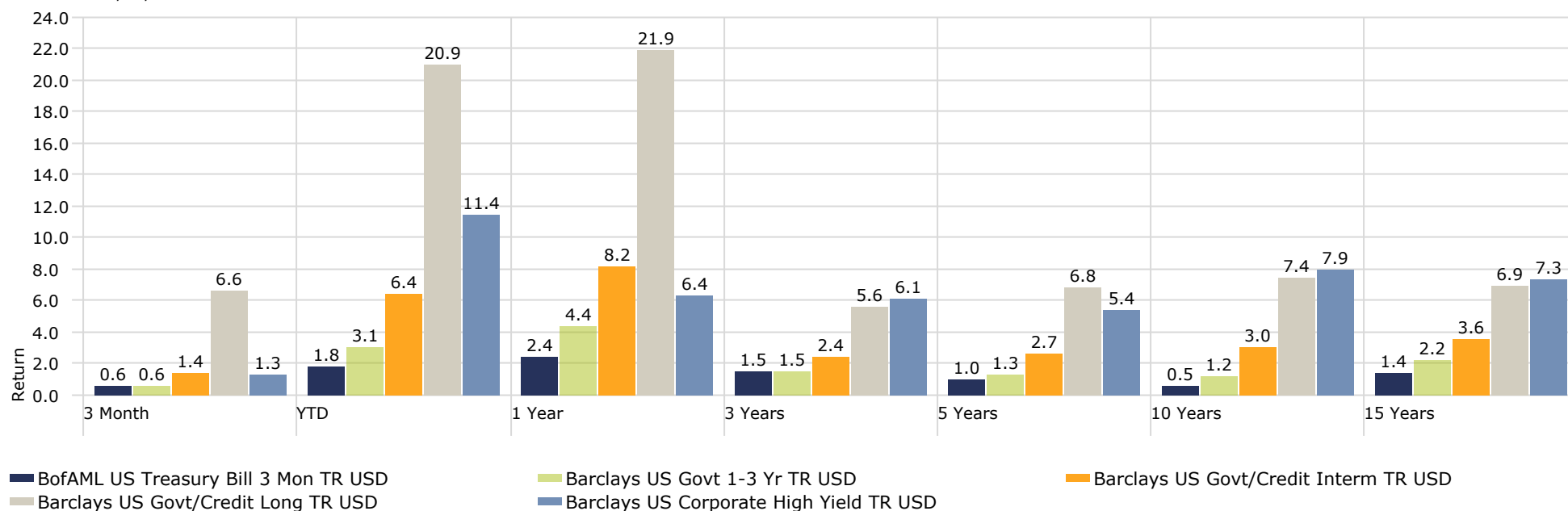
Barclays US Govt/Credit Interm TR USD
MSCI EM NR USD

S&P 500 TR USD

MSCI EAFE NR USD

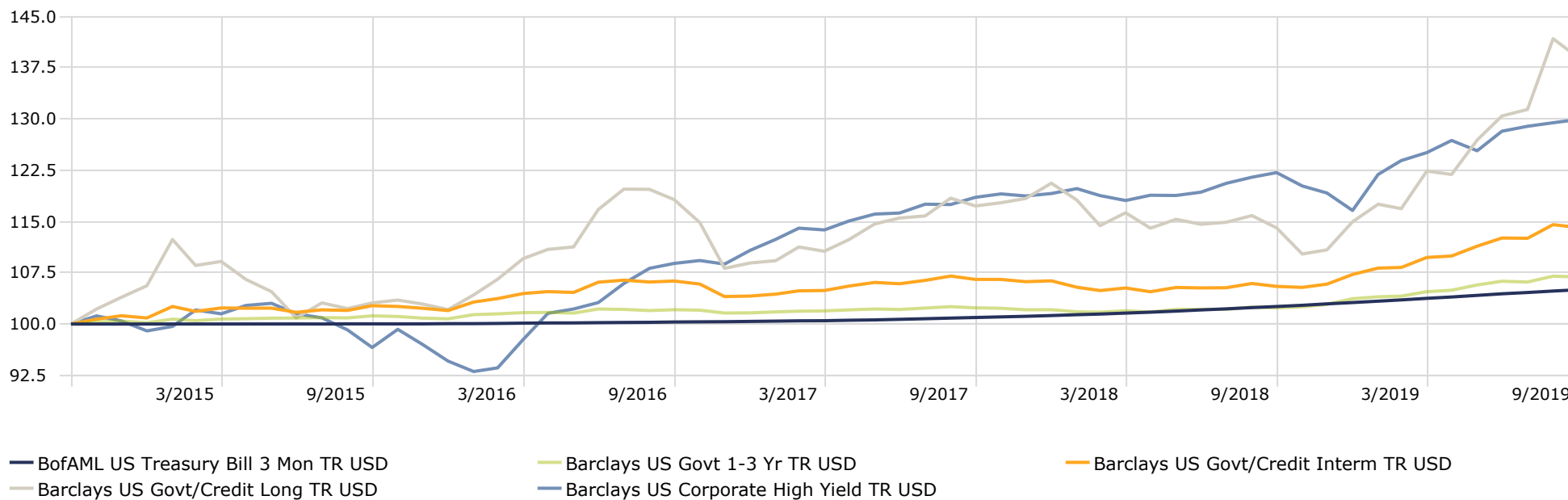
Milliman - Fixed Income Market

As of Date: 9/30/2019



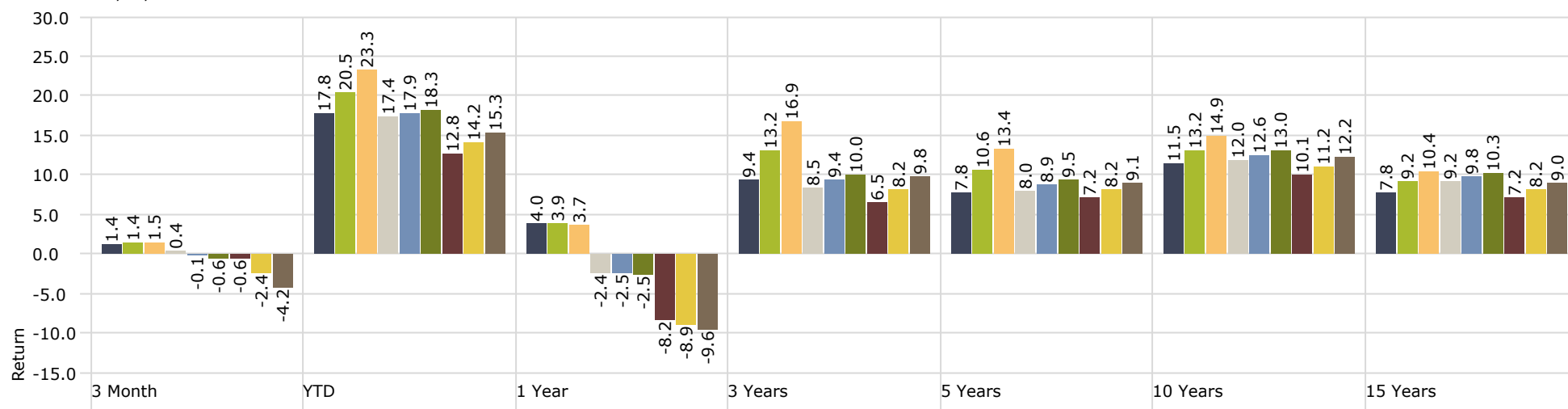
Milliman - Fixed Income Market

Time Period: 10/1/2014 to 9/30/2019



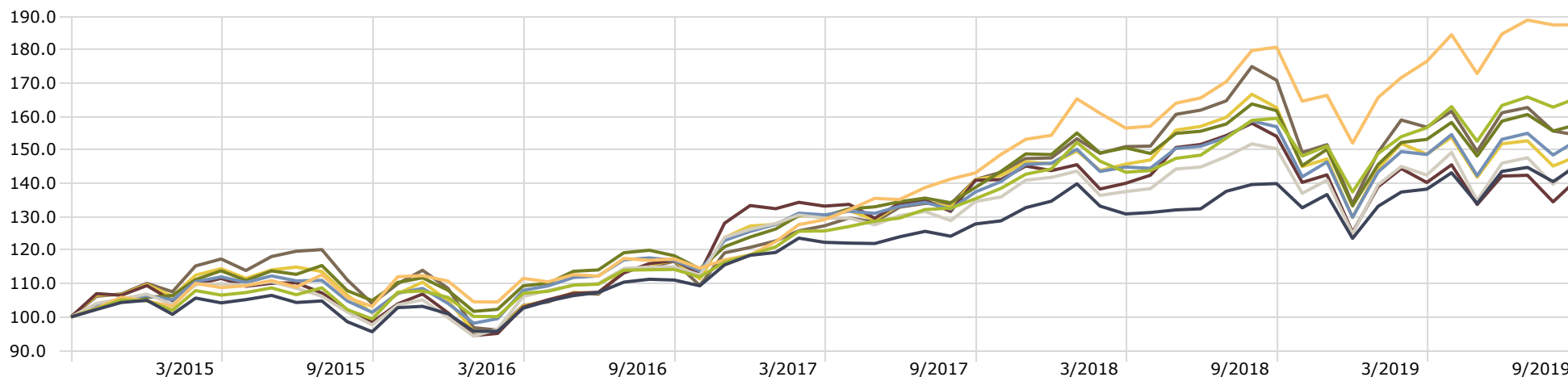
Milliman - US Equity

As of Date: 9/30/2019



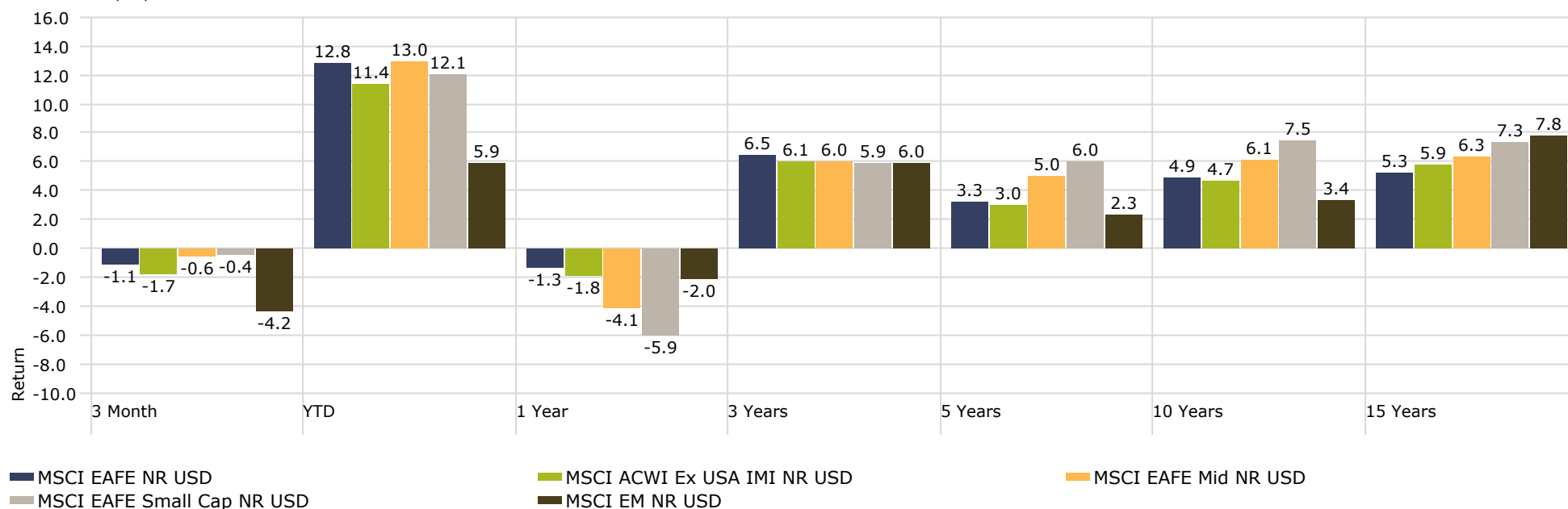
Milliman - US Equity

Time Period: 10/1/2014 to 9/30/2019



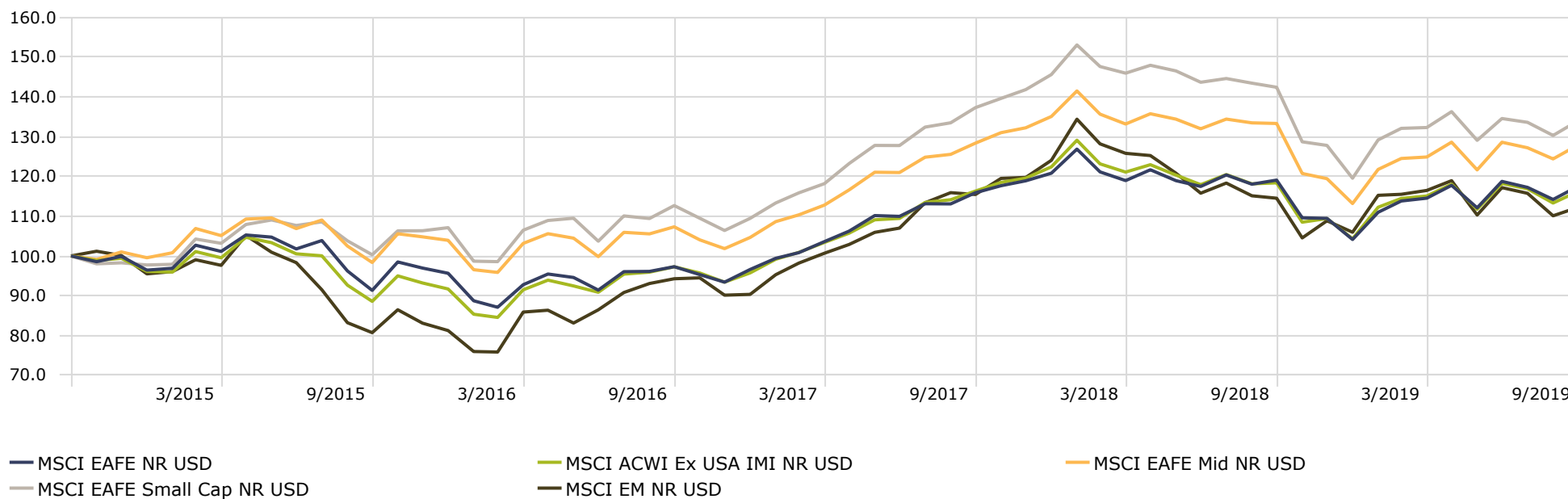
Milliman - International Equity Mkts

As of Date: 9/30/2019



Milliman - International Equity Mkts

Time Period: 10/1/2014 to 9/30/2019



Periodic Table

As of Date: 9/30/2019

Best ↑	MSCI EM NR USD 78.5	FTSE NAREIT All Equity REITs TR USD 27.9	BBgBarc US Govt/Credit Long TR USD 22.5	FTSE NAREIT All Equity REITs TR USD 19.7	Russell 2000 TR USD 38.8	FTSE NAREIT All Equity REITs TR USD 28.0	FTSE NAREIT All Equity REITs TR USD 2.8	WTexas Crude Int Oil BL 44.8	MSCI EM NR USD 37.3	BofAML US Treasury Bill 3 Mon TR USD 1.9	FTSE NAREIT All Equity REITs TR USD 28.5
	WTexas Crude Int Oil BL 78.0	Russell 2000 TR USD 26.9	FTSE NAREIT All Equity REITs TR USD 8.3	MSCI EM NR USD 18.2	S&P MidCap 400 TR 33.5	BBgBarc US Govt/Credit Long TR USD 19.3	S&P 500 TR USD 1.4	Russell 2000 TR USD 21.3	MSCI EAFE NR USD 25.0	BBgBarc US Govt/Credit Interm TR USD 0.9	BBgBarc US Govt/Credit Long TR USD 20.9
	BBgBarc US Corporate High Yield TR USD 58.2	S&P MidCap 400 TR 26.6	WTexas Crude Int Oil BL 8.2	S&P MidCap 400 TR 17.9	S&P 500 TR USD 32.4	S&P 500 TR USD 13.7	BBgBarc US Govt/Credit Interm TR USD 1.1	S&P MidCap 400 TR 20.7	S&P 500 TR USD 21.8	BBgBarc US Corporate High Yield TR USD -2.1	S&P 500 TR USD 20.6
	S&P MidCap 400 TR 37.4	MSCI EM NR USD 18.9	BBgBarc US Govt/Credit Interm TR USD 5.8	MSCI EAFE NR USD 17.3	MSCI EAFE NR USD 22.8	S&P MidCap 400 TR 9.8	BofAML US Treasury Bill 3 Mon TR USD 0.1	BBgBarc US Corporate High Yield TR USD 17.1	S&P MidCap 400 TR 16.2	FTSE NAREIT All Equity REITs TR USD -4.0	WTexas Crude Int Oil BL 19.8
	MSCI EAFE NR USD 31.8	BBgBarc US Corporate High Yield TR USD 15.1	BBgBarc US Corporate High Yield TR USD 5.0	Russell 2000 TR USD 16.3	BBgBarc US Corporate High Yield TR USD 7.4	Russell 2000 TR USD 4.9	MSCI EAFE NR USD -0.8	S&P 500 TR USD 12.0	Russell 2000 TR USD 14.6	S&P 500 TR USD -4.4	S&P MidCap 400 TR 17.9
	FTSE NAREIT All Equity REITs TR USD 28.0	WTexas Crude Int Oil BL 15.1	S&P 500 TR USD 2.1	S&P 500 TR USD 16.0	WTexas Crude Int Oil BL 6.9	BBgBarc US Govt/Credit Interm TR USD 3.1	S&P MidCap 400 TR -2.2	MSCI EM NR USD 11.2	WTexas Crude Int Oil BL 12.5	BBgBarc US Govt/Credit Long TR USD -4.7	Russell 2000 TR USD 14.2
	Russell 2000 TR USD 27.2	S&P 500 TR USD 15.1	BofAML US Treasury Bill 3 Mon TR USD 0.1	BBgBarc US Corporate High Yield TR USD 15.8	FTSE NAREIT All Equity REITs TR USD 2.9	BBgBarc US Corporate High Yield TR USD 2.5	BBgBarc US Govt/Credit Long TR USD -3.3	FTSE NAREIT All Equity REITs TR USD 8.6	BBgBarc US Govt/Credit Long TR USD 10.7	Russell 2000 TR USD -11.0	MSCI EAFE NR USD 12.8
	S&P 500 TR USD 26.5	BBgBarc US Govt/Credit Long TR USD 10.2	S&P MidCap 400 TR -1.7	BBgBarc US Govt/Credit Long TR USD 8.8	BofAML US Treasury Bill 3 Mon TR USD 0.1	BofAML US Treasury Bill 3 Mon TR USD 0.0	Russell 2000 TR USD -4.4	BBgBarc US Govt/Credit Long TR USD 6.7	FTSE NAREIT All Equity REITs TR USD 8.7	S&P MidCap 400 TR -11.1	BBgBarc US Corporate High Yield TR USD 11.4
	BBgBarc US Govt/Credit Interm TR USD 5.2	MSCI EAFE NR USD 7.8	Russell 2000 TR USD -4.2	BBgBarc US Govt/Credit Interm TR USD 3.9	BBgBarc US Govt/Credit Interm TR USD -0.9	MSCI EM NR USD -2.2	BBgBarc US Corporate High Yield TR USD -4.5	BBgBarc US Govt/Credit Interm TR USD 2.1	BBgBarc US Corporate High Yield TR USD 7.5	MSCI EAFE NR USD -13.8	BBgBarc US Govt/Credit Interm TR USD 6.4
	BBgBarc US Govt/Credit Long TR USD 1.9	BBgBarc US Govt/Credit Interm TR USD 5.9	MSCI EAFE NR USD -12.1	BofAML US Treasury Bill 3 Mon TR USD 0.1	MSCI EM NR USD -2.6	MSCI EAFE NR USD -4.9	MSCI EM NR USD -14.9	MSCI EAFE NR USD 1.0	BBgBarc US Govt/Credit Interm TR USD 2.1	MSCI EM NR USD -14.6	MSCI EM NR USD 5.9
Worst ↓	BofAML US Treasury Bill 3 Mon TR USD 0.2	BofAML US Treasury Bill 3 Mon TR USD 0.1	MSCI EM NR USD -18.4	WTexas Crude Int Oil BL -7.1	BBgBarc US Govt/Credit Long TR USD -8.8	WTexas Crude Int Oil BL -45.6	WTexas Crude Int Oil BL -30.5	BofAML US Treasury Bill 3 Mon TR USD 0.3	BofAML US Treasury Bill 3 Mon TR USD 0.9	WTexas Crude Int Oil BL -25.3	BofAML US Treasury Bill 3 Mon TR USD 1.8
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	YTD

SECTION II - Plan Level Exhibits

CITY OF DOVER, DELAWARE GENERAL EMPLOYEE PENSION PLAN

Plan Assets

As of Date: 9/30/2019



	Assets (\$)	Assets (%)
Vanguard Emerging Mkts Stock Idx Instl	5,254,000.14	11.95
Vanguard Equity-Income Adm	3,535,615.63	8.04
Vanguard PRIMECAP Core Inv	3,195,917.10	7.27
Morgan Stanley Inst Intl Advtg I	3,084,321.83	7.02
American Funds New Perspective R6	3,077,540.81	7.00
Wells Fargo Treasury Plus MMkt Inst	2,618,208.99	5.96
Vanguard Real Estate Index Institutional	2,216,722.60	5.04
Vanguard Short-Term Bond Index Adm	2,204,818.89	5.01
PGIM High Yield R6	2,198,919.80	5.00
Vanguard Inflation-Protected Secs I	2,190,099.92	4.98
Vanguard Mid-Cap Value Index Admiral	1,768,516.39	4.02
Vanguard Mid Cap Index Admiral	1,763,942.38	4.01
Columbia Strategic Income Inst3	1,763,835.53	4.01
Vanguard Inter-Term Bond Index Adm	1,761,497.24	4.01
Janus Henderson Small Cap Value I	1,759,795.26	4.00
Federated Kaufmann Small Cap Instl	1,721,696.31	3.92
Vanguard Growth Index Admiral	1,656,037.02	3.77
Vanguard Long-Term Bond Index Instl	1,098,109.95	2.50
PIMCO Long Duration Total Return Instl	1,095,219.56	2.49
Total	43,964,815.35	100.00

Plan Assets

As of Date: 6/30/2019



	Assets (\$)	Assets (%)
Vanguard Emerging Mkts Stock Idx Instl	5,292,078.23	11.84
Wells Fargo Treasury Plus MMkt Inst	3,662,851.09	8.19
Vanguard Equity-Income Adm	3,472,884.38	7.77
Vanguard PRIMECAP Core Inv	3,149,890.22	7.05
Invesco Oppenheimer International Gr R6	3,093,905.07	6.92
American Funds New Perspective R6	3,078,999.12	6.89
PGIM High Yield R6	2,167,511.39	4.85
Vanguard Inflation-Protected Secs I	2,156,702.24	4.83
Vanguard Short-Term Bond Index Adm	2,149,150.36	4.81
Vanguard Real Estate Index Institutional	2,117,480.33	4.74
Federated Kaufmann Small Cap Instl	1,773,812.26	3.97
PGIM QMA Small-Cap Value R6	1,762,098.48	3.94
Vanguard Mid-Cap Value Index Admiral	1,757,336.85	3.93
Vanguard Mid Cap Index Admiral	1,748,365.47	3.91
Vanguard Inter-Term Bond Index Adm	1,731,456.34	3.87
Columbia Strategic Income Inst3	1,724,341.62	3.86
Vanguard Growth Index Admiral	1,669,875.76	3.74
Vanguard Long-Term Bond Index Instl	1,097,354.90	2.46
PIMCO Long Duration Total Return Instl	1,091,168.65	2.44
Total	44,697,262.76	100.00

As of Date: 9/30/2019

Vanguard Equity-Income Adm	Vanguard PRIMECAP Core Inv	Vanguard Growth Index Admi	Large
Vanguard Mid-Cap Value Inde	Vanguard Mid Cap Index Admi		Mid
Janus Henderson Small Cap V		Federated Kaufmann Small Ca	Small
Value	Blend	Growth	

Diversified Emerging Mkts Vanguard Emerging Mkts Stoc
Foreign Large Growth Morgan Stanley Inst Intl Advtd
World Large Stock American Funds New Perspect

Real Estate

Vanguard Real Estate Index Ir

Plan Style Box - Fixed Income

As of Date: 9/30/2019

Short Government	Intermediate Government	Long Government	Ultrashort Bond
Short-Term Bond Vanguard Short-Term Bond Index Adm	Intermediate Core Bond Vanguard Interm-Term Bond Index Adm	Long-Term Bond PIMCO Long Duration Total Return Instl Vanguard Long-Term Bond Index Instl	Multisector Bond
Nontraditional Bond Columbia Strategic Income Inst3	High Yield Bond PGIM High Yield R6	Inflation-Protected Bond Vanguard Inflation-Protected Secs I	Emerging Markets Bond
World Bond	Bank Loan	Diversified Emerging Mkts	Long-Only Debt
USD Government Bond	USD Diversified Bond	USD High Yield Bond	

Plan Style Box - Combined Groups

As of Date: 9/30/2019

Money Market - Taxable Wells Fargo Treasury Plus MMkt Inst			
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Manager - Investment Policy Review

		Active Fund Criteria								Index Fund Criteria					
	<u>Index Fund</u>	<u>3yr-Index</u>	<u>3yr-Peer</u>	<u>3yr-Alpha</u>	<u>3yr-Sharpe</u>	<u>5yr-Index</u>	<u>5yr-Peer</u>	<u>5yr-Alpha</u>	<u>5yr-Sharpe</u>	<u>3yr-Beta</u>	<u>3yr-TrackErr</u>	<u>5yr-Beta</u>	<u>5yr-TrackErr</u>	<u>Prospectus Net Expense Ratio</u>	<u>Mgr Rating</u>
Wells Fargo Treasury Plus MMkt Inst														0.20	
Vanguard Inflation-Protected Secs I		x	✓	✓	✓	x	✓	✓	✓					0.07	Approve
Vanguard Short-Term Bond Index Adm	Yes									✓	✓	✓	✓	0.07	-
Vanguard Interm-Term Bond Index Adm	Yes									✓	✓	✓	✓	0.07	Approve
Vanguard Long-Term Bond Index Instl	Yes									✓	✓	✓	✓	0.05	Approve
PIMCO Long Duration Total Return Instl		✓	✓	✓	x	✓	✓	✓	✓					0.97	Approve
PGIM High Yield R6		✓	✓	✓	✓	✓	✓	✓	✓					0.42	Approve
Columbia Strategic Income Inst3		✓	✓	✓	✓	✓	✓	✓	✓					0.61	Approve
Vanguard Equity-Income Adm		✓	✓	✓	✓	✓	✓	✓	✓					0.18	Approve
Vanguard PRIMECAP Core Inv		x	✓	x	✓	✓	✓	✓	✓					0.46	-
Vanguard Growth Index Admiral	Yes									✓	✓	✓	✓	0.05	Approve
Vanguard Mid-Cap Value Index Admiral	Yes									✓	✓	✓	✓	0.07	Approve
Vanguard Mid Cap Index Admiral	Yes									✓	✓	✓	✓	0.05	Approve
Janus Henderson Small Cap Value I		✓	✓	✓	✓	✓	✓	✓	✓					0.88	Approve
Federated Kaufmann Small Cap Instl		✓	✓	✓	✓									0.91	*
Morgan Stanley Inst Intl Advtg I		✓	✓	✓	✓	✓	✓	✓	✓					1.00	Approve
American Funds New Perspective R6		✓	✓	✓	✓	✓	✓	✓	✓					0.45	Approve
Vanguard Emerging Mkts Stock Idx Instl	Yes									✓	x	✓	x	0.10	-
Vanguard Real Estate Index Institutional	Yes									✓	✓	✓	✓	0.10	Approve
Employee Plan - Return															

Investment Policy Review Definitions

#Yr-Index - indicates whether the fund has beat its index over the time period
 #Yr-Peer - the fund return ranks in the top 1/2 of its peer group for the time period
 #Yr-Alpha - the fund Alpha is in the top 1/2 of its peer group for the time period
 #Yr-Sharpe - the fund Sharpe is in the top 1/2 of its peer group for the time period
 #Yr-Beta - the fund Beta is at or close to 1.0 for the time period
 #Yr-TrackErr - the fund Tracking Error is lower than 0.10 for the time period
 Expense - the fund Prospectus Net Expense Ratio

*Indicates that the fund has less than 5 years of data.

Plan Investment Performance

As of Date: 9/30/2019

	% Assets in Plan	Ticker	Expense Ratio	Morningstar Rating Overall	Return					% Rank Cat 3Mo	% Rank Cat 1Yr	% Rank Cat 3Yr	% Rank Cat 5Yr
					3 Month	1 Year	3 Years	5 Years	10 Years				
Money Market													
US Fund Money Market - Taxable													
Wells Fargo Treasury Plus MMkt Inst	5.96	PISXX	0.20		0.52	2.18	1.37	0.85	0.43				
ICE BofAML US 3M Trsy Bill TR USD					0.56	2.39	1.54	0.98	0.54				
Fixed Income													
US OE Inflation-Protected Bond													
Vanguard Inflation-Protected Secs I	4.98	VIPIX	0.07	★★★★	1.45	7.13	2.07	2.41	3.43	17	18	38	17
BBgBarc US Treasury US TIPS TR USD					1.35	7.13	2.21	2.45	3.46				
US OE Short-Term Bond													
Vanguard Short-Term Bond Index Adm	5.01	VBIRX	0.07	★★★	0.95	5.98	1.94	1.94	2.02	27	14	61	40
BBgBarc US 1-5Y GovCredit FIAdj TR USD					0.89	6.01	2.01	2.01	2.12				
US OE Intermediate-Term Bond													
Vanguard Interm-Term Bond Index Adm	4.01	VBILX	0.07	★★★★★	2.41	12.43	3.10	3.93	4.78	13	1	19	1
BBgBarc US 5-10Y GovCredit FIAdj TR USD					2.28	12.49	3.18	4.01	4.84				
US OE Long-Term Bond													
Vanguard Long-Term Bond Index Instl	2.50	VBLLX	0.05	★★★	6.76	22.05	5.47	6.80	7.42	2	2	65	44
PIMCO Long Duration Total Return Instl	2.49	PLRIX	0.97	★★★★	6.51	21.02	6.23	7.21	7.69	7	29	21	9
BBgBarc US L Govt/Credit FI Adj TR USD					6.59	21.88	5.56	6.81	7.42				
US OE High Yield Bond													
PGIM High Yield R6	5.00	PHYQX	0.42	★★★★★	1.61	8.11	6.85	6.09		20	7	3	2
BBgBarc High Yield Corporate TR USD					1.33	6.36	6.07	5.37	7.94				
US OE Nontraditional Bond													
Columbia Strategic Income Inst3	4.01	CPHUX	0.61	★★★★★	0.89	7.11	4.54	4.43		40	9	20	6
BBgBarc Global Aggregate TR USD					0.71	7.60	1.59	1.99	2.34				

Plan Investment Performance

As of Date: 9/30/2019

	% Assets in Plan	Ticker	Expense Ratio	Morningstar Rating Overall	Return					% Rank Cat 3Mo	% Rank Cat 1Yr	% Rank Cat 3Yr	% Rank Cat 5Yr
					3 Month	1 Year	3 Years	5 Years	10 Years				
Equity													
US OE Large Value													
Vanguard Equity-Income Adm	8.04	VEIRX	0.18	★★★★★	2.26	6.51	11.24	9.62	12.93	32	17	15	10
Russell 1000 Value TR USD					1.36	4.00	9.43	7.79	11.46				
US OE Large Blend													
Vanguard PRIMECAP Core Inv	7.27	VPCCX	0.46	★★★★	1.46	-1.06	12.95	10.81	13.56	53	85	32	14
MSCI US Prime Market 750 GR USD					1.53	4.09	13.33	10.77	13.28				
US OE Large Growth													
Vanguard Growth Index Admiral	3.77	VIGAX	0.05	★★★★	2.00	4.52	15.38	12.19	14.38	12	25	41	36
CRSP US Large Cap Growth TR USD					2.01	4.55	15.42	12.24	13.87				
US OE Mid-Cap Value													
Vanguard Mid-Cap Value Index Admiral	4.02	VMVAX	0.07	★★★★	1.88	2.30	8.83	8.37		28	21	21	16
CRSP US Mid Cap Value TR USD					1.88	2.34	8.87	8.41	12.97				
US OE Mid-Cap Blend													
Vanguard Mid Cap Index Admiral	4.01	VIMAX	0.05	★★★★★	0.61	3.65	10.67	9.20	13.05	40	20	21	15
CRSP US Mid Cap TR USD					0.62	3.70	10.70	9.24	13.14				
US OE Small Value													
Janus Henderson Small Cap Value I	4.00	JSCOX	0.88	★★★★★	1.21	1.49	8.44	8.83	10.11	22	3	8	4
Russell 2000 Value TR USD					-0.57	-8.24	6.54	7.17	10.06				
US OE Small Growth													
Federated Kaufmann Small Cap Instl	3.92	FKAIX	0.91	★★★★★	-6.38	1.91	21.16			79	6	1	
Russell 2000 Growth TR USD					-4.17	-9.63	9.79	9.08	12.25				
US OE Foreign Large Growth													
Morgan Stanley Inst Intl Advtg I	7.02	MFAIX	1.00	★★★★★	-0.63	4.90	16.41	13.47		33	16	1	1
MSCI World Large Growth NR USD					0.97	4.02	13.72	10.20	10.96				

Plan Investment Performance

As of Date: 9/30/2019

	% Assets in Plan	Ticker	Expense Ratio	Morningstar Rating Overall	Return					% Rank Cat 3Mo	% Rank Cat 1Yr	% Rank Cat 3Yr	% Rank Cat 5Yr
					3 Month	1 Year	3 Years	5 Years	10 Years				
Equity													
US OE World Large Stock													
American Funds New Perspective R6	7.00	RNPGX	0.45	★★★★★	-0.42	2.88	12.38	9.72	10.67	59	36	14	11
MSCI ACWI NR USD					-0.03	1.38	9.71	6.65	8.35				
US OE Diversified Emerging Mkts													
Vanguard Emerging Mkts Stock Idx Instl	11.95	VEMIX	0.10	★★★	-3.57	1.31	5.31	2.05	3.21	48	34	49	47
FTSE EMs AC China A Incl (US RIC) NR USD					-3.63	1.16	5.41	2.34	3.55				
US OE Real Estate													
Vanguard Real Estate Index Institutional	5.04	VGSNX	0.10	★★★★	7.42	19.92	7.10	9.96	12.91	41	26	49	36
Vanguard Real Estate Index					7.15	18.58	5.85	8.68	11.61				
Not Classified													
Miscellaneous													
Employee Plan - Return	—				0.65	5.20	7.61	6.78	7.12				
Dover EE Index					1.10	3.77	6.92	5.86	7.07				

Plan Risk Analytics

As of Date: 9/30/2019

	Alpha				Beta		Sharpe Ratio			
	3 Years	3 Year % Rank	5 Years	5 Year % Rank	3 Years	5 Years	3 Years	3 Year % Rank	5 Years	5 Year % Rank
Money Market										
US Fund Money Market - Taxable										
Wells Fargo Treasury Plus MMkt Inst	-0.22	17	-0.16	18	0.35	0.36	-6.98	23	-4.54	34
Fixed Income										
US OE Inflation-Protected Bond										
Vanguard Inflation-Protected Secs I	-0.13	30	-0.05	13	0.99	1.01	0.16	24	0.40	9
US OE Short-Term Bond										
Vanguard Short-Term Bond Index Adm	-0.06	62	-0.07	63	0.97	1.00	0.23	58	0.64	49
US OE Intermediate-Term Bond										
Vanguard Interm-Term Bond Index Adm	-0.08	43	-0.12	46	1.00	1.02	0.38	39	0.74	36
US OE Long-Term Bond										
Vanguard Long-Term Bond Index Instl	-0.12	86	-0.12	79	1.01	1.02	0.47	82	0.68	71
PIMCO Long Duration Total Return Instl	0.78	52	0.55	42	0.96	0.97	0.57	55	0.76	46
US OE High Yield Bond										
PGIM High Yield R6	0.70	9	0.98	6	1.01	0.93	1.22	7	1.00	8
US OE Nontraditional Bond										
Columbia Strategic Income Inst3	2.86	20	3.09	9	0.26	0.27	1.12	26	1.03	16
Equity										
US OE Large Value										
Vanguard Equity-Income Adm	2.52	12	2.41	8	0.88	0.88	0.88	11	0.81	7
US OE Large Blend										
Vanguard PRIMECAP Core Inv	-1.48	55	-0.56	34	1.12	1.08	0.82	55	0.76	36
US OE Large Growth										
Vanguard Growth Index Admiral	-0.02	43	-0.03	36	1.00	1.00	1.03	35	0.87	29
US OE Mid-Cap Value										
Vanguard Mid-Cap Value Index Admiral	-0.03	24	-0.03	20	1.00	1.00	0.57	20	0.61	13

Plan Risk Analytics

As of Date: 9/30/2019

	Alpha				Beta		Sharpe Ratio			
	3 Years	3 Year % Rank	5 Years	5 Year % Rank	3 Years	5 Years	3 Years	3 Year % Rank	5 Years	5 Year % Rank
Equity										
US OE Mid-Cap Blend										
Vanguard Mid Cap Index Admiral	-0.03	20	-0.03	12	1.00	1.00	0.71	16	0.67	12
US OE Small Value										
Janus Henderson Small Cap Value I	2.66	6	2.69	5	0.77	0.78	0.54	5	0.64	4
US OE Small Growth										
Federated Kaufmann Small Cap Instl	11.07	1			0.86		1.17	1		
US OE Foreign Large Growth										
Morgan Stanley Inst Intl Advtg I	4.55	1	4.51	1	0.82	0.83	1.20	1	1.04	1
US OE World Large Stock										
American Funds New Perspective R6	2.36	15	2.97	14	1.02	0.98	0.90	14	0.75	13
US OE Diversified Emerging Mkts										
Vanguard Emerging Mkts Stock Idx Instl	-0.12	50	-0.27	53	1.01	0.98	0.33	46	0.14	51
US OE Real Estate										
Vanguard Real Estate Index Institutional	1.17	50	1.16	46	1.00	1.00	0.47	49	0.66	44
Not Classified										
Miscellaneous										
Employee Plan - Return	0.64	1	0.85	1	1.00	1.00	0.76	1	0.72	1

Plan Risk Analytics

As of Date: 9/30/2019

	Std Dev		Sortino Ratio		Information Ratio (arith)		Up Capture Ratio		Down Capture Ratio	
	3 Years	5 Years	3 Years	5 Years	3 Years	5 Years	3 Years	Peer group percentile	3 Years	Peer group percentile
Money Market										
US Fund Money Market - Taxable										
Wells Fargo Treasury Plus MMkt Inst	0.21	0.24	-3.11	-2.76	-3.50	-2.82	88.90	17		
Fixed Income										
US OE Inflation-Protected Bond										
Vanguard Inflation-Protected Secs I	3.27	3.57	0.22	0.67	-0.40	-0.09	98.16	11	100.96	71
US OE Short-Term Bond										
Vanguard Short-Term Bond Index Adm	1.51	1.47	0.36	1.16	-0.38	-0.39	96.44	16	96.06	87
US OE Intermediate-Term Bond										
Vanguard Interm-Term Bond Index Adm	4.07	3.98	0.58	1.28	-0.30	-0.22	98.84	1	100.01	98
US OE Long-Term Bond										
Vanguard Long-Term Bond Index Instl	8.90	8.73	0.76	1.18	-0.14	-0.01	99.42	11	99.99	93
PIMCO Long Duration Total Return Instl	8.49	8.30	0.91	1.30	0.66	0.37	99.59	4	92.11	79
US OE High Yield Bond										
PGIM High Yield R6	4.20	5.02	2.55	1.94	1.12	0.81	106.35	5	93.34	35
US OE Nontraditional Bond										
Columbia Strategic Income Inst3	2.58	3.29	2.15	2.04	0.72	0.55	49.25	11	-16.33	57
Equity										
US OE Large Value										
Vanguard Equity-Income Adm	11.00	10.77	1.31	1.29	0.71	0.67	95.59	66	78.83	13
US OE Large Blend										
Vanguard PRIMECAP Core Inv	14.17	13.41	1.19	1.17	-0.10	0.01	107.87	2	119.09	93
US OE Large Growth										
Vanguard Growth Index Admiral	13.27	13.03	1.56	1.41	-1.25	-1.61	99.88	37	100.00	57

Plan Risk Analytics

As of Date: 9/30/2019

	Std Dev		Sortino Ratio		Information Ratio (arith)		Up Capture Ratio		Down Capture Ratio	
	3 Years	5 Years	3 Years	5 Years	3 Years	5 Years	3 Years	Peer group percentile	3 Years	Peer group percentile
Equity										
US OE Mid-Cap Value										
Vanguard Mid-Cap Value Index Admiral	13.75	12.88	0.83	0.92	-1.13	-1.20	99.81	47	99.97	29
US OE Mid-Cap Blend										
Vanguard Mid Cap Index Admiral	13.30	12.77	1.03	1.01	-1.50	-1.66	99.94	41	100.12	28
US OE Small Value										
Janus Henderson Small Cap Value I	13.93	12.95	0.81	1.00	0.36	0.34	83.21	89	69.52	3
US OE Small Growth										
Federated Kaufmann Small Cap Instl	16.27		1.90		1.68		116.36	9	69.27	4
US OE Foreign Large Growth										
Morgan Stanley Inst Intl Advtg I	11.99	11.87	1.99	1.83	0.38	0.51	94.13	4	66.30	1
US OE World Large Stock										
American Funds New Perspective R6	11.98	11.92	1.40	1.20	0.82	1.01	107.82	20	92.15	34
US OE Diversified Emerging Mkts										
Vanguard Emerging Mkts Stock Idx Instl	13.34	15.06	0.51	0.22	-0.07	-0.15	100.28	47	100.98	53
US OE Real Estate										
Vanguard Real Estate Index Institutional	12.88	14.31	0.73	1.14	5.48	5.15	103.76	15	96.57	78
Not Classified										
Miscellaneous										
Employee Plan - Return	7.99	8.11	1.12	1.14	0.85	1.23	104.65	1	99.93	1

SECTION III - Investment Detail Pages

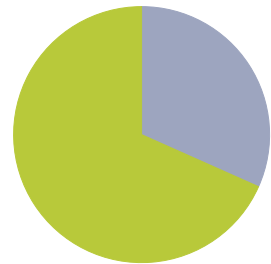
Wells Fargo Treasury Plus MMkt Inst

PISXX



Wells Fargo Treasury Plus MMkt Inst - Asset Allocation

Portfolio Date: 9/30/2019



• Stock	0.0
• Bond	31.7
• Cash	68.3
• Other	0.0
Total	100.0

Key Information

Name	Wells Fargo Treasury Plus MMkt Inst
% Morningstar Category	US Fund Money Market - Taxable
Firm Name	Wells Fargo Funds
Advisor	Wells Fargo Funds Management LLC
Manager Name	Management Team
Inception Date	10/1/1985
Firm Web Address	https://www.wellsfargofunds.com/

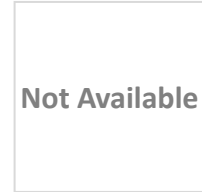
Investment Strategy

The investment seeks current income, while preserving capital and liquidity. The fund invests exclusively in high-quality, short-term, U.S. dollar-denominated money market instruments that consist of U.S. Treasury obligations and repurchase agreements collateralized by U.S. Treasury obligations. The security selection is based on several factors, including credit quality, yield and maturity, while taking into account the fund's overall level of liquidity and weighted average maturity.

Style Allocation

Portfolio Date: 9/30/2019

Morningstar Fixed Income Style Box™



Fixed-Income Stats

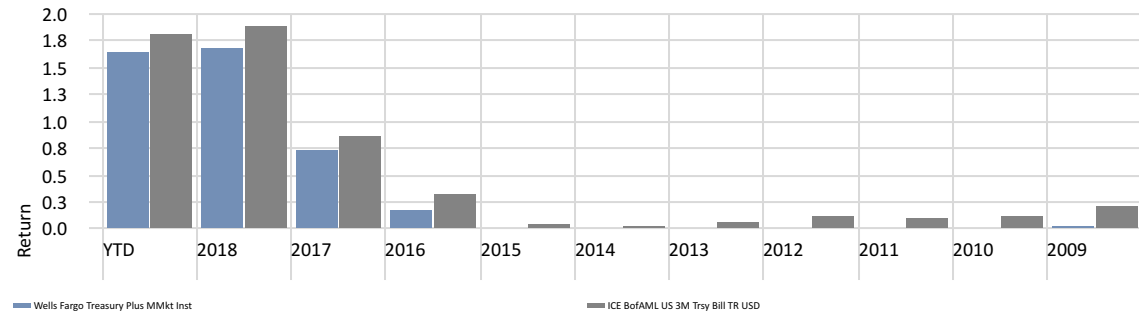
Average Eff Duration	-
Average Eff Maturity	-
Average Coupon	-
Average Price	-

Key Statistics

Arithmetic Mean 3 Yr (Qtr-End)	0.11
Std Dev 3 Yr (Qtr-End)	0.21
Alpha 3 Yr (Qtr-End)	-
Sharpe Ratio 3 Yr (Qtr-End)	-6.98
Arithmetic Mean 5 Yr (Qtr-End)	0.07
Std Dev 5 Yr (Qtr-End)	0.24
Alpha 5 Yr (Qtr-End)	-
Sharpe Ratio 5 Yr (Qtr-End)	-4.54

Returns

Calculation Benchmark: ICE BofAML US 3M Trsy Bill TR USD

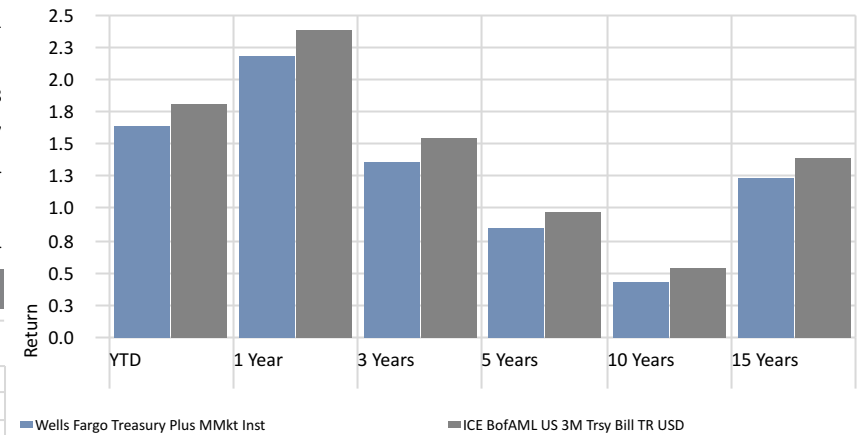


As of Date: 9/30/2019 Calculation Benchmark: ICE BofAML US 3M Trsy Bill TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Wells Fargo Treasury Plus MMkt Inst	1.64	1.68	0.72	0.18	0.01	0.01	0.01	0.01	0.01	0.01	0.04
ICE BofAML US 3M Trsy Bill TR USD	1.81	1.87	0.86	0.33	0.05	0.03	0.07	0.11	0.10	0.13	0.21

Returns

Calculation Benchmark: ICE BofAML US 3M Trsy Bill TR USD

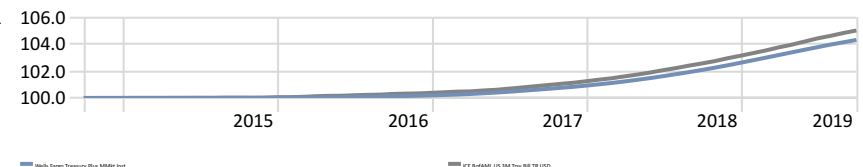


As of Date: 9/30/2019

	YTD	3 months	1 year	3 years	5 years	10 years	15 years
Wells Fargo Treasury Plus MMkt Inst	1.64	0.52	2.18	1.37	0.85	0.43	1.25
ICE BofAML US 3M Trsy Bill TR USD	1.81	0.56	2.39	1.54	0.98	0.54	1.39

Investment Growth

Time Period: 10/1/2014 to 9/30/2019



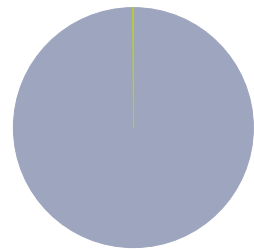
Vanguard Inflation-Protected Secs I

VIPIX



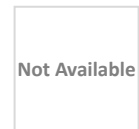
Asset Allocation

Portfolio Date: 8/31/2019



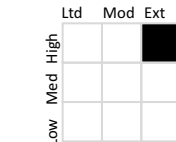
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %		
Consumer Cyclical %		
Financial Services %		
Real Estate %		
Consumer Defensive %		
Healthcare %		
Utilities %		
Communication Services %		
Energy %		
Industrials %		
Technology %		

Credit Quality

Avg Eff Duration	7.9
Avg Eff Maturity	8.7
Avg Cred Qual	AAA
Cred Qual AAA%	100.0
Cred Qual AA%	0.0
Cred Qual A%	0.0
Credit Qual BBB %	0.00
Credit Qual BB %	0.00
Credit Qual B %	0.00
Credit Qual Below B %	0.00

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
United States Treasury Notes 0.62%		1,371		4.78%
United States Treasury Notes 0.38%		1,106		3.86%
United States Treasury Notes 0.12%		1,087		3.79%
United States Treasury Notes 0.38%		1,073		3.74%
United States Treasury Notes 0.25%		1,056		3.68%
United States Treasury Notes 0.62%		1,036		3.61%
United States Treasury Notes 0.12%		1,015		3.54%
United States Treasury Notes 0.12%		1,010		3.52%
United States Treasury Notes 0.12%		969		3.38%
United States Treasury Notes 0.62%		937		3.27%
Turnover Ratio %			27.00	
% Asset in Top 10 Holdings			37.17	

Key Information

Ticker	VIPIX
Morningstar Category	US Fund Inflation-Protected Bond
Firm Name	Vanguard
Advisor	Vanguard Group Inc
Manager Name	Gemma Wright-Casparius
Inception Date	12/12/2003
Fund Size (Mil)	28,255.15
Prospectus Net Expense Ratio	0.07
Firm Name	Vanguard
Web Address	www.vanguard.com

Key Information

Morningstar Rating Overall	★★★★
Morningstar Rating 3 Yr	★★★
Morningstar Return % Rank Cat 3 Yr	37
Morningstar Rating 5 Yr	★★★★
Morningstar Return % Rank Cat 5 Yr	16
Morningstar Rating 10 Yr	★★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	14

Key Statistics

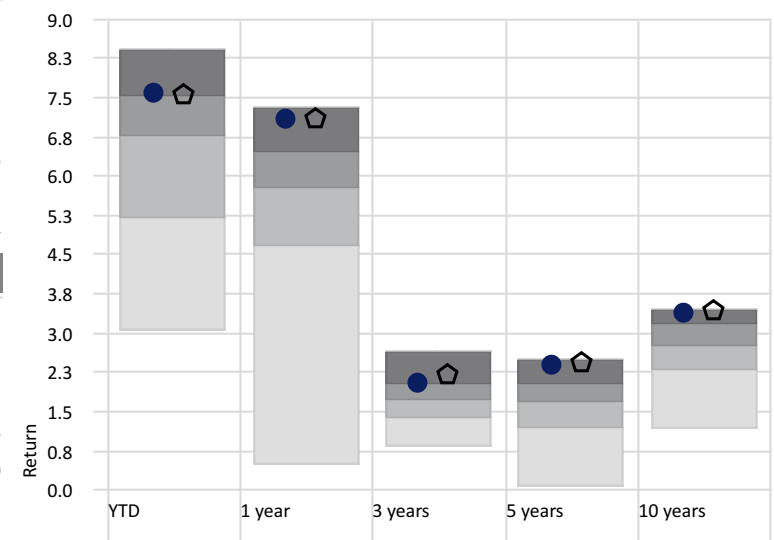
Arithmetic Mean 3 Yr (Mo-End)	0.18
Std Dev 3 Yr (Mo-End)	3.28
Alpha 3 Yr (Mo-End)	-0.67
Sharpe Ratio 3 Yr (Mo-End)	0.16
Arithmetic Mean 5 Yr (Mo-End)	0.20
Std Dev 5 Yr (Mo-End)	3.57
Alpha 5 Yr (Mo-End)	-0.91
Sharpe Ratio 5 Yr (Mo-End)	0.40

Investment Strategy

The investment seeks to provide inflation protection and income consistent with investment in inflation-indexed securities. The fund invests at least 80% of its assets in inflation-indexed bonds issued by the U.S. government, its agencies and instrumentalities, and corporations. It may invest in bonds of any maturity; however, its dollar-weighted average maturity is expected to be in the range of 7 to 20 years. At a minimum, all bonds purchased by the fund will be rated investment-grade or, if unrated, will be considered by the advisor to be investment-grade.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Infl Adj Bond

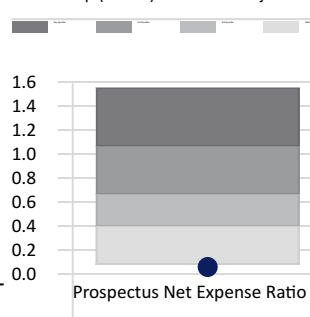


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Vanguard Inflation-Protected Secs I	7.63	7.13	2.07	2.41	3.43
BBgBarc US Treasury US TIPS TR USD	7.58	7.13	2.21	2.45	3.46
Median	6.77	5.76	1.73	1.71	2.78
5th Percentile	8.42	7.32	2.64	2.47	3.46
25th Percentile	7.53	6.48	2.04	2.03	3.17
50th Percentile	6.77	5.76	1.73	1.71	2.78
75th Percentile	5.21	4.68	1.40	1.20	2.32
95th Percentile	3.05	0.52	0.86	0.10	1.18

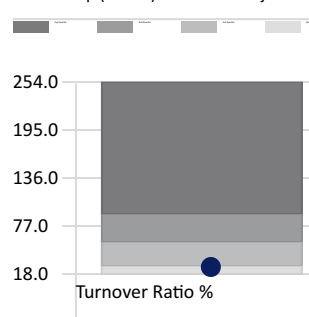
Expense vs Peer Group

Peer Group (5-95%): US OE Infl Adj Bond



Turnover vs Peer Group

Peer Group (5-95%): US OE Infl Adj Bond



Vanguard Inflation-Protected Secs I

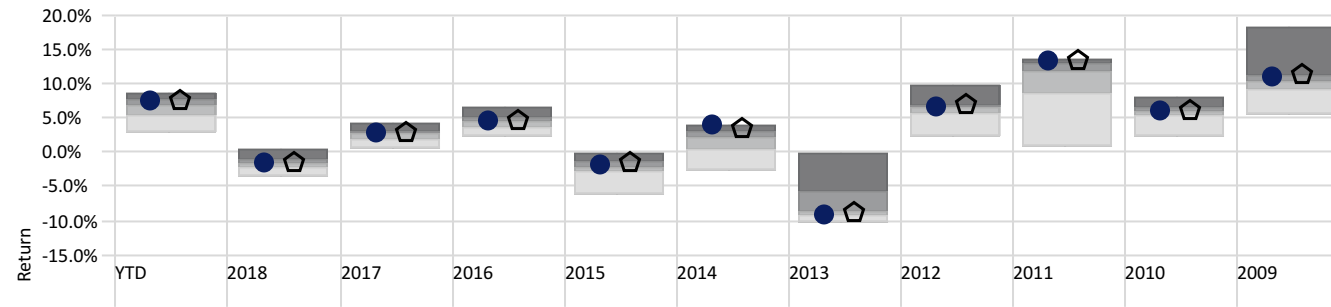
VIPIX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Infl Adj Bond Calculation Benchmark: BBgBarc US Treasury US TIPS TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



● Vanguard Inflation-Protected Secs I

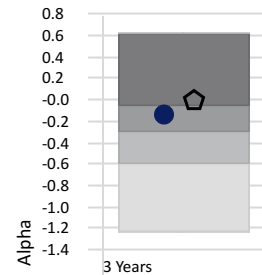
★ BBgBarc US Treasury US TIPS TR USD

As of Date: 9/30/2019 Calculation Benchmark: BBgBarc US Treasury US TIPS TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Vanguard Inflation-Protected Secs I	7.63	-1.40	2.97	4.63	-1.67	4.07	-8.83	6.87	13.39	6.33	11.03
BBgBarc US Treasury US TIPS TR USD	7.58	-1.26	3.01	4.68	-1.44	3.64	-8.61	6.98	13.56	6.31	11.41
Count	212	201	187	178	156	149	144	131	124	103	99
25th Percentile	7.53	-1.04	3.07	4.93	-1.30	2.98	-5.66	6.91	12.82	6.42	11.17
50th Percentile	6.77	-1.63	2.57	4.37	-2.14	2.22	-8.70	6.51	11.84	5.88	10.28
75th Percentile	5.21	-2.23	1.72	3.57	-2.88	0.23	-9.13	5.70	8.55	5.21	9.19

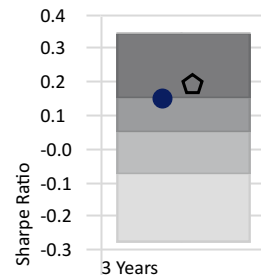
3 Yr Alpha

Peer Group (5-95%): US OE Infl Adj Bond



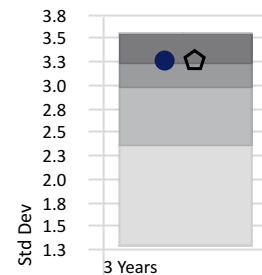
3 Yr Sharpe

Peer Group (5-95%): US OE Infl Adj Bond



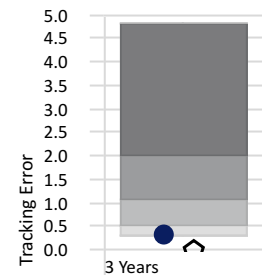
3 Yr Std Deviation

Peer Group (5-95%): US OE Infl Adj Bond



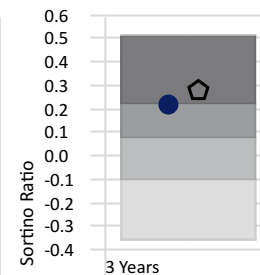
3 Yr Tracking Error

Peer Group (5-95%): US OE Infl Adj Bond



3 Yr Sortino

Peer Group (5-95%): US OE Infl Adj Bond



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years

US OE Inflation-Protected Bond

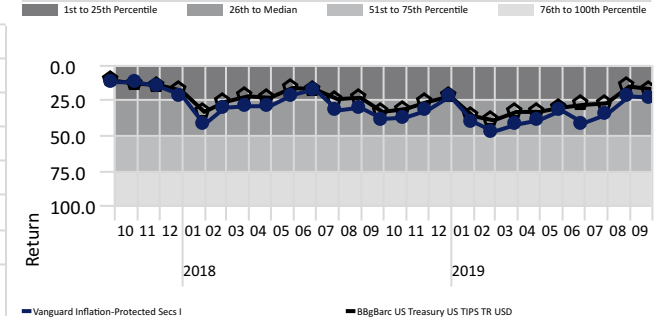
Vanguard Inflation-Protected Secs I	3.27	0.16	-0.13	0.99	0.22	-0.40	41.67	0.35
BBgBarc US Treasury US TIPS TR USD	3.28	0.20			0.29			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

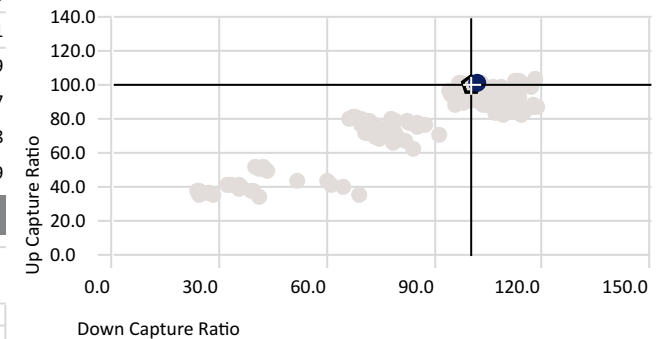
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: BBgBarc US Treasury US TIPS TR USD



Up/Down Market Capture Ratio

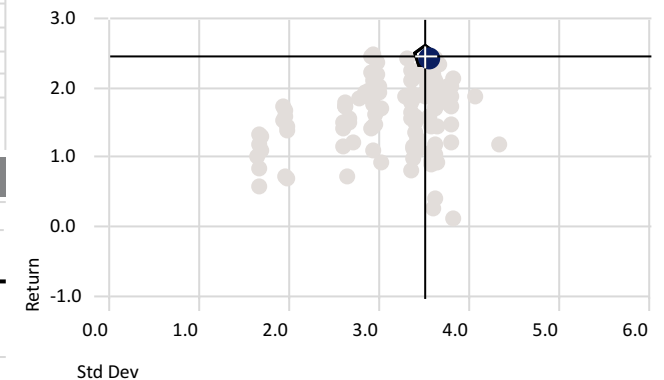
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: BBgBarc US Treasury US TIPS TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



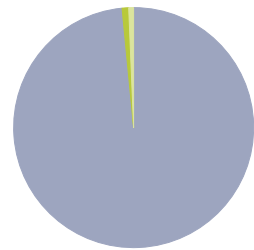
Vanguard Short-Term Bond Index Adm

VBIRX



Asset Allocation

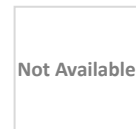
Portfolio Date: 9/30/2019



• Stock	0.0	%
• Bond	98.5	
• Cash	0.9	
• Other	0.7	
Total	100.0	

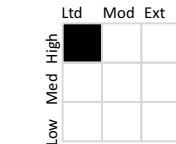
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	0.0	
Consumer Cyclical %	0.0	
Financial Services %	100.0	
Real Estate %	0.0	
Consumer Defensive %	0.0	
Healthcare %	0.0	
Utilities %	0.0	
Communication Services %	0.0	
Energy %	0.0	
Industrials %	0.0	
Technology %	0.0	

Credit Quality

Avg Eff Duration	2.7
Avg Eff Maturity	2.9
Avg Cred Qual	AA
Cred Qual AAA%	
Cred Qual AA%	
Cred Qual A%	
Credit Qual BBB %	
Credit Qual BB %	
Credit Qual B %	
Credit Qual Below B %	

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
United States Treasury Notes 1.25%		1,076		2.23%
United States Treasury Notes 1.25%		863		1.79%
United States Treasury Notes 1.12%		607		1.26%
United States Treasury Notes 1.12%		543		1.13%
United States Treasury Notes 2.12%		531		1.10%
United States Treasury Notes 1.38%		511		1.06%
United States Treasury Notes 1.38%		503		1.04%
United States Treasury Notes 2.62%		495		1.02%
United States Treasury Notes 2.75%		487		1.01%
United States Treasury Notes 1.88%		482		1.00%
Turnover Ratio %			48.00	
% Asset in Top 10 Holdings			13.21	

Key Information

Ticker	VBIRX
Morningstar Category	US Fund Short-Term Bond
Firm Name	Vanguard
Advisor	Vanguard Group Inc
Manager Name	Joshua C. Barrickman
Inception Date	11/12/2001
Fund Size (Mil)	48,182.60
Prospectus Net Expense Ratio	0.07
Firm Name	Vanguard
Web Address	www.vanguard.com

Key Information

Morningstar Rating Overall	★★★
Morningstar Rating 3 Yr	★★★
Morningstar Return % Rank Cat 3 Yr	61
Morningstar Rating 5 Yr	★★★
Morningstar Return % Rank Cat 5 Yr	40
Morningstar Rating 10 Yr	★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	57

Key Statistics

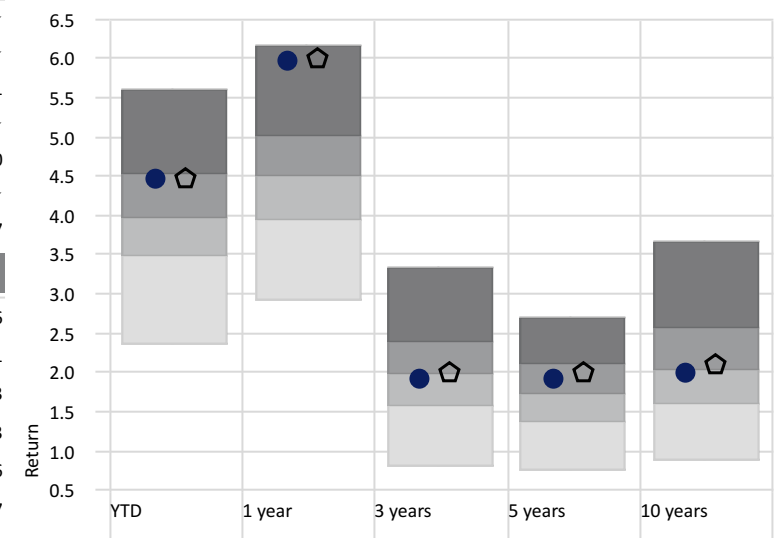
Arithmetic Mean 3 Yr (Mo-End)	0.16
Std Dev 3 Yr (Mo-End)	1.51
Alpha 3 Yr (Mo-End)	-0.23
Sharpe Ratio 3 Yr (Mo-End)	0.23
Arithmetic Mean 5 Yr (Mo-End)	0.16
Std Dev 5 Yr (Mo-End)	1.47
Alpha 5 Yr (Mo-End)	-0.11
Sharpe Ratio 5 Yr (Mo-End)	0.64

Investment Strategy

The investment seeks to track the performance of Bloomberg Barclays U.S. 1-5 Year Government/Credit Float Adjusted Index. Bloomberg Barclays U.S. 1-5 Year Government/Credit Float Adjusted Index includes all medium and larger issues of U.S. government, investment-grade corporate, and investment-grade international dollar-denominated bonds that have maturities between 1 and 5 years and are publicly issued. All of its investments will be selected through the sampling process, and at least 80% of its assets will be invested in bonds held in the index.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Short Term Bond

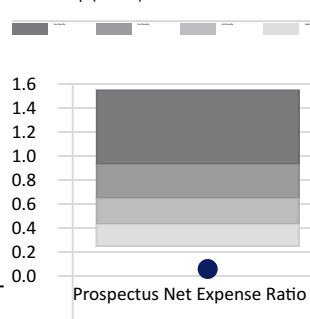


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Vanguard Short-Term Bond Index Adm	4.47	5.98	1.94	1.94	2.02
BBgBarc US 1-5Y GovCredit FIAAdj TR USD	4.48	6.01	2.01	2.01	2.12
Median	3.98	4.51	1.98	1.74	2.04
5th Percentile	5.60	6.16	3.32	2.70	3.67
25th Percentile	4.52	5.00	2.39	2.10	2.57
50th Percentile	3.98	4.51	1.98	1.74	2.04
75th Percentile	3.48	3.96	1.57	1.37	1.60
95th Percentile	2.38	2.91	0.81	0.75	0.89

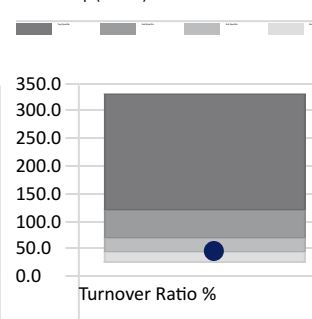
Expense vs Peer Group

Peer Group (5-95%): US OE Short Term Bond



Turnover vs Peer Group

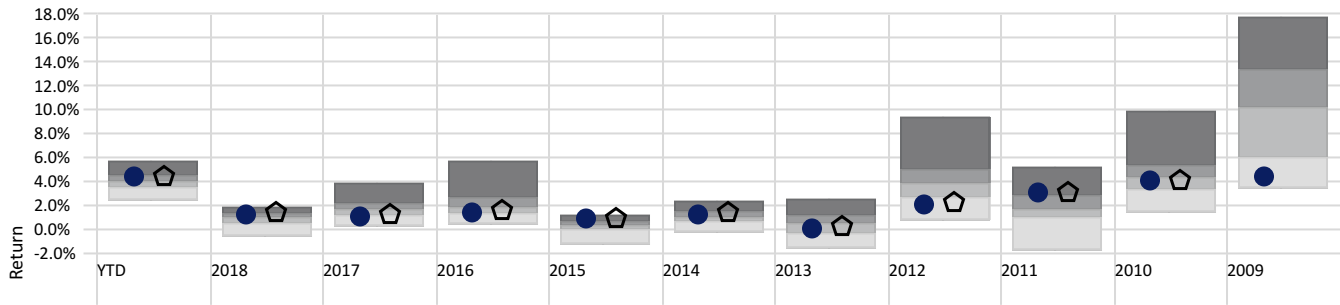
Peer Group (5-95%): US OE Short Term Bond



Performance Relative to Peer Group

Peer Group (5-95%): US OE Short Term Bond Calculation Benchmark: BBgBarc US 1-5Y GovCredit FIAdj TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



● Vanguard Short-Term Bond Index Adm

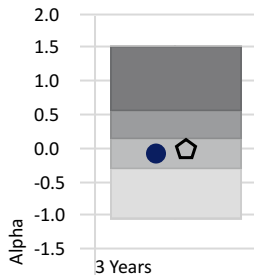
★ BBgBarc US 1-5Y GovCredit FIAdj TR USD

As of Date: 9/30/2019 Calculation Benchmark: BBgBarc US 1-5Y GovCredit FIAdj TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Vanguard Short-Term Bond Index Adm	4.47	1.35	1.18	1.49	0.92	1.26	0.17	2.05	3.08	4.03	4.38
BBgBarc US 1-5Y GovCredit FIAdj TR USD	4.48	1.38	1.27	1.57	0.97	1.43	0.29	2.24	3.13	4.08	
Count	546	507	473	457	427	396	370	320	304	284	268
25th Percentile	4.52	1.28	2.17	2.65	0.66	1.45	1.14	5.00	2.71	5.35	13.35
50th Percentile	3.98	0.94	1.54	1.80	0.32	0.94	0.39	3.86	1.67	4.23	10.10
75th Percentile	3.48	0.41	1.08	1.25	-0.12	0.55	-0.33	2.62	0.99	3.26	6.00

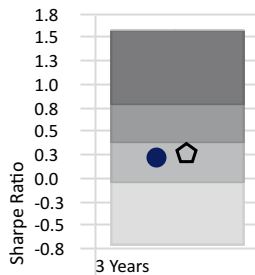
3 Yr Alpha

Peer Group (5-95%): US OE Short Term Bond



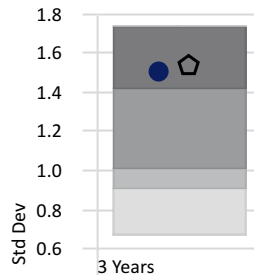
3 Yr Sharpe

Peer Group (5-95%): US OE Short Term Bond



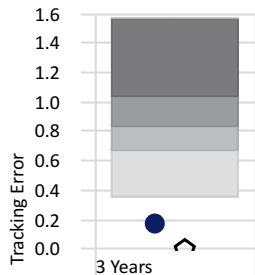
3 Yr Std Deviation

Peer Group (5-95%): US OE Short Term Bond



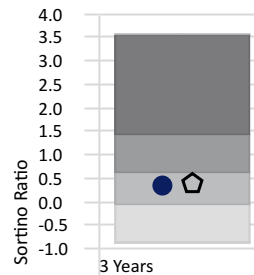
3 Yr Tracking Error

Peer Group (5-95%): US OE Short Term Bond



3 Yr Sortino

Peer Group (5-95%): US OE Short Term Bond



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Vanguard Short-Term Bond Index Adm	1.51	0.23	-0.06	0.97	0.36	-0.38	44.44	0.18
BBgBarc US 1-5Y GovCredit FIAdj TR USD	1.54	0.27			0.43			

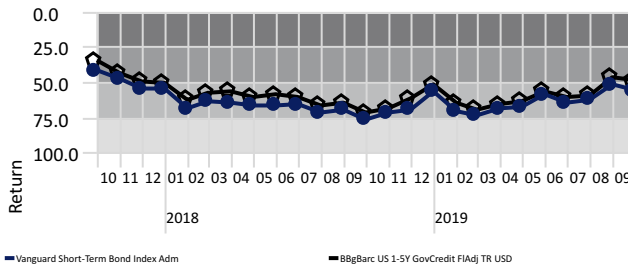
Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

Rolling Window: 3 Years 1 Month shift Calculation Benchmark: BBgBarc US 1-5Y GovCredit FIAdj TR USD

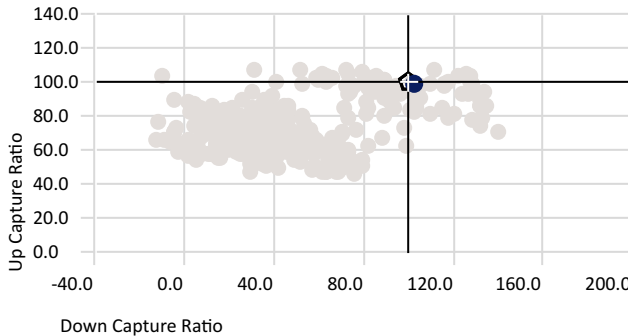
1st to 25th Percentile 26th to Median 51st to 75th Percentile 76th to 100th Percentile



Up/Down Market Capture Ratio

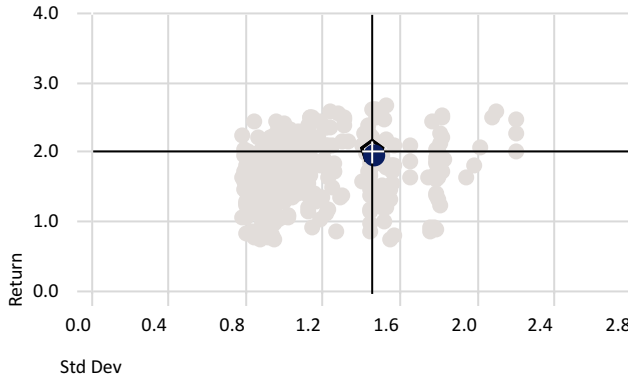
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: BBgBarc US 1-5Y GovCredit FIAdj TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



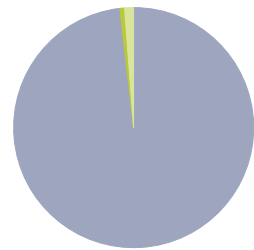
Vanguard Interm-Term Bond Index Adm

VBILX



Asset Allocation

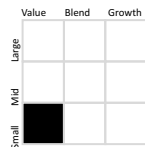
Portfolio Date: 8/31/2019



• Stock	0.0	%
• Bond	98.2	
• Cash	0.6	
• Other	1.2	
Total	100.0	

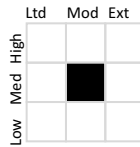
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	0.0	
Consumer Cyclical %	0.0	
Financial Services %	0.0	
Real Estate %	0.0	
Consumer Defensive %	0.0	
Healthcare %	100.0	
Utilities %	0.0	
Communication Services %	0.0	
Energy %	0.0	
Industrials %	0.0	
Technology %	0.0	

Credit Quality

Avg Eff Duration	6.3
Avg Eff Maturity	7.3
Avg Cred Qual	A
Cred Qual AAA%	56.4
Cred Qual AA%	2.8
Cred Qual A%	16.3
Credit Qual BBB %	24.57
Credit Qual BB %	0.00
Credit Qual B %	0.00
Credit Qual Below B %	0.00

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
United States Treasury Notes 3.12%		876		2.55%
United States Treasury Notes 1.62%		777		2.26%
United States Treasury Notes 2.38%		736		2.15%
United States Treasury Notes 2.25%		717		2.09%
United States Treasury Notes 2.62%		699		2.04%
United States Treasury Notes 2.38%		644		1.88%
United States Treasury Notes 1.62%		639		1.86%
United States Treasury Notes 2%		638		1.86%
United States Treasury Notes 2.88%		637		1.86%
United States Treasury Notes 2.88%		616		1.80%
Turnover Ratio %			53.00	
% Asset in Top 10 Holdings			20.34	

Key Information

Ticker	VBILX
Morningstar Category	US Fund Intermediate Core Bond
Firm Name	Vanguard
Advisor	Vanguard Group Inc
Manager Name	Joshua C. Barrickman
Inception Date	11/12/2001
Fund Size (Mil)	34,291.31
Prospectus Net Expense Ratio	0.07
Firm Name	Vanguard
Web Address	www.vanguard.com

Key Information

Morningstar Rating Overall	★★★★★
Morningstar Rating 3 Yr	★★★★
Morningstar Return % Rank Cat 3 Yr	19
Morningstar Rating 5 Yr	★★★★★
Morningstar Return % Rank Cat 5 Yr	1
Morningstar Rating 10 Yr	★★★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	4

Key Statistics

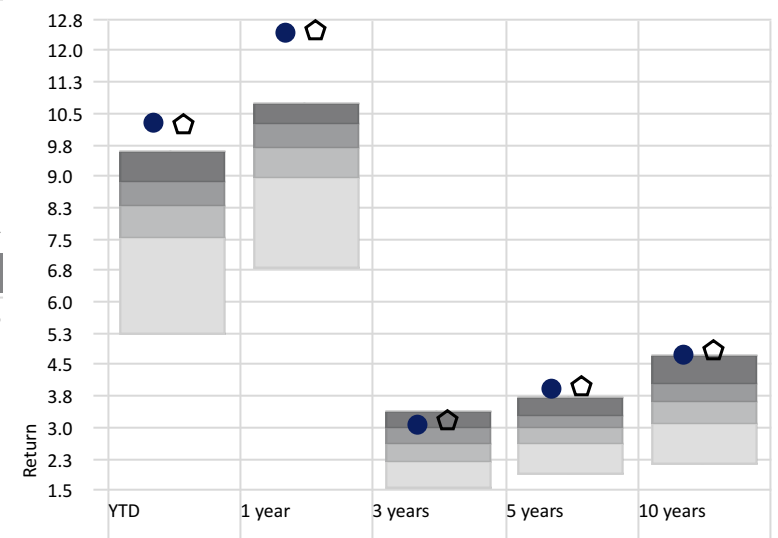
Arithmetic Mean 3 Yr (Mo-End)	0.26
Std Dev 3 Yr (Mo-End)	4.07
Alpha 3 Yr (Mo-End)	-0.07
Sharpe Ratio 3 Yr (Mo-End)	0.38
Arithmetic Mean 5 Yr (Mo-End)	0.33
Std Dev 5 Yr (Mo-End)	3.98
Alpha 5 Yr (Mo-End)	-0.08
Sharpe Ratio 5 Yr (Mo-End)	0.74

Investment Strategy

The investment seeks the performance of the Bloomberg Barclays U.S. 5-10 Year Government/Credit Float Adjusted Index. Bloomberg Barclays U.S. 5-10 Year Government/Credit Float Adjusted Index includes all medium and larger issues of U.S. government, investment-grade corporate and investment-grade international dollar-denominated bonds that have maturities between 5 and 10 years and are publicly issued. All of its investments will be selected through the sampling process, and at least 80% of its assets will be invested in bonds held in the index.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Intermediate Term Bond

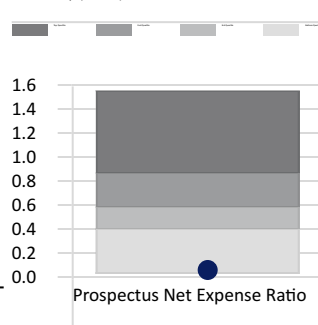


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Vanguard Interm-Term Bond Index Adm	10.28	12.43	3.10	3.93	4.78
BBgBarc US 5-10Y GovCredit FIAAdj TR USD	10.23	12.49	3.18	4.01	4.84
Median	8.31	9.69	2.62	2.98	3.61
5th Percentile	9.57	10.73	3.40	3.73	4.70
25th Percentile	8.87	10.25	3.00	3.28	4.02
50th Percentile	8.31	9.69	2.62	2.98	3.61
75th Percentile	7.52	8.95	2.20	2.60	3.08
95th Percentile	5.25	6.83	1.56	1.90	2.11

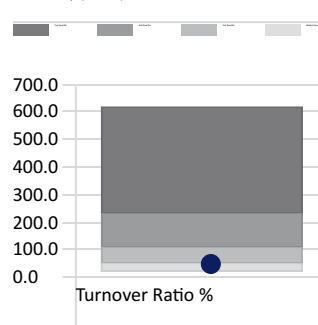
Expense vs Peer Group

Peer Group (5-95%): US OE Intermediate Term Bond



Turnover vs Peer Group

Peer Group (5-95%): US OE Intermediate Term Bond



Vanguard Interm-Term Bond Index Adm

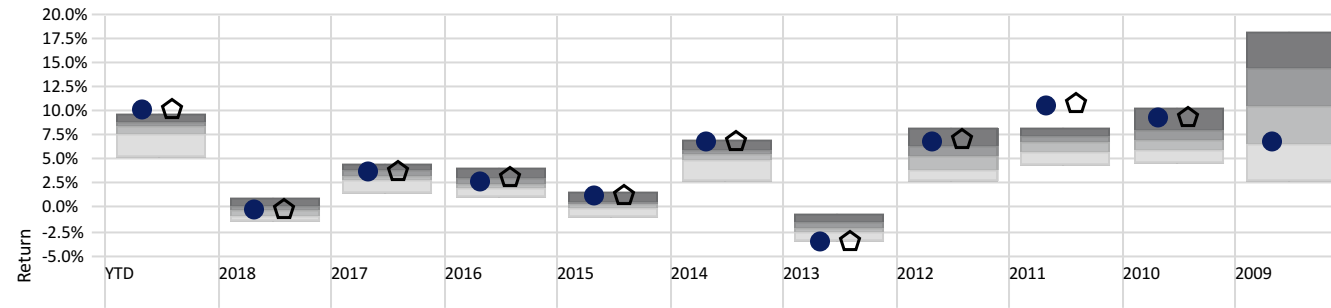
VBILX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Intermediate Term Bond Calculation Benchmark: BBgBarc US 5-10Y GovCredit FIAdj TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



● Vanguard Interm-Term Bond Index Adm

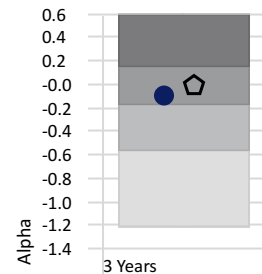
★ BBgBarc US 5-10Y GovCredit FIAdj TR USD

As of Date: 9/30/2019 Calculation Benchmark: BBgBarc US 5-10Y GovCredit FIAdj TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Vanguard Interm-Term Bond Index Adm	10.28	-0.17	3.85	2.83	1.27	6.96	-3.45	7.02	10.73	9.49	6.89
BBgBarc US 5-10Y GovCredit FIAdj TR USD	10.23	-0.07	3.81	3.10	1.28	6.91	-3.37	7.22	10.79	9.44	
Count	394	375	354	330	307	299	291	269	252	240	223
25th Percentile	8.87	0.05	3.76	2.89	0.60	5.99	-1.64	6.24	7.39	7.86	14.40
50th Percentile	8.31	-0.41	3.26	2.46	0.26	5.55	-2.18	5.31	6.63	6.85	10.48
75th Percentile	7.52	-0.83	2.73	2.01	-0.18	4.76	-2.69	3.90	5.65	5.87	6.57

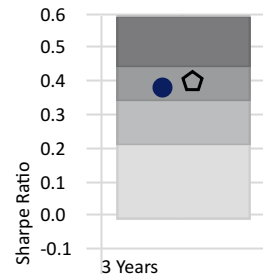
3 Yr Alpha

Peer Group (5-95%): US OE Intermediate Term Bond



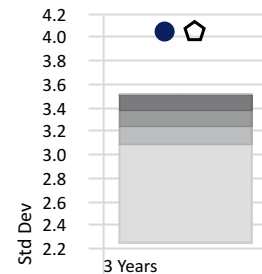
3 Yr Sharpe

Peer Group (5-95%): US OE Intermediate Term Bond



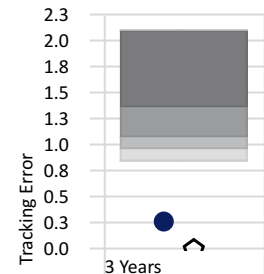
3 Yr Std Deviation

Peer Group (5-95%): US OE Intermediate Term Bond



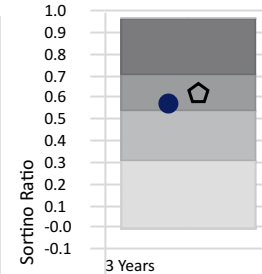
3 Yr Tracking Error

Peer Group (5-95%): US OE Intermediate Term Bond



3 Yr Sortino

Peer Group (5-95%): US OE Intermediate Term Bond



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years

US OE Intermediate-Term Bond

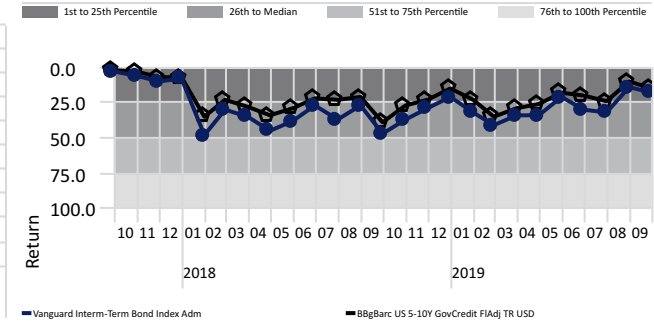
Vanguard Interm-Term Bond Index Adm	4.07	0.38	-0.08	1.00	0.58	-0.30	47.22	0.27
BBgBarc US 5-10Y GovCredit FIAdj TR USD	4.06	0.40			0.62			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

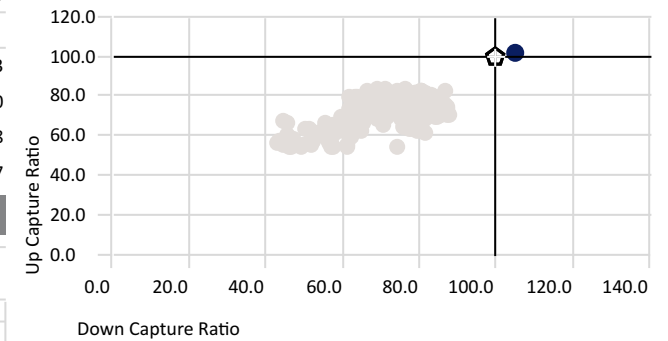
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: BBgBarc US 5-10Y GovCredit FIAdj TR USD



Up/Down Market Capture Ratio

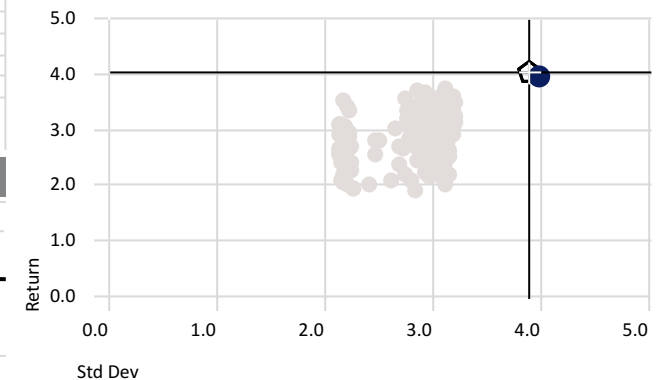
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: BBgBarc US 5-10Y GovCredit FIAdj TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



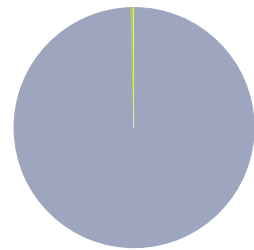
Vanguard Long-Term Bond Index Instl

VBLLX



Asset Allocation

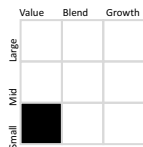
Portfolio Date: 8/31/2019



• Stock	0.0	%
• Bond	99.6	
• Cash	0.3	
• Other	0.1	
Total	100.0	

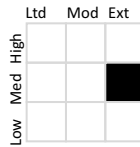
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	0.0	
Consumer Cyclical %	0.0	
Financial Services %	0.0	
Real Estate %	0.0	
Consumer Defensive %	0.0	
Healthcare %	100.0	
Utilities %	0.0	
Communication Services %	0.0	
Energy %	0.0	
Industrials %	0.0	
Technology %	0.0	

Credit Quality

Avg Eff Duration	15.8
Avg Eff Maturity	24.4
Avg Cred Qual	A
Cred Qual AAA%	45.5
Cred Qual AA%	6.0
Cred Qual A%	20.2
Credit Qual BBB %	28.22
Credit Qual BB %	0.00
Credit Qual B %	0.00
Credit Qual Below B %	0.00

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
United States Treasury Bonds 2.88%		216		1.67%
United States Treasury Bonds 3%		212		1.64%
United States Treasury Bonds 3.12%		195		1.50%
United States Treasury Bonds 3.38%		189		1.45%
United States Treasury Bonds 3%		184		1.41%
United States Treasury Bonds 3%		171		1.32%
United States Treasury Bonds 3.62%		168		1.30%
United States Treasury Bonds 3.38%		167		1.28%
United States Treasury Bonds 2.75%		165		1.27%
United States Treasury Bonds 2.88%		163		1.26%
Turnover Ratio %			38.00	
% Asset in Top 10 Holdings				14.10

Key Information

Ticker	VBLLX
Morningstar Category	US Fund Long-Term Bond
Firm Name	Vanguard
Advisor	Vanguard Group Inc
Manager Name	Joshua C. Barrickman
Inception Date	2/2/2006
Fund Size (Mil)	12,667.52
Prospectus Net Expense Ratio	0.05
Firm Name	Vanguard
Web Address	www.vanguard.com

Key Information

Morningstar Rating Overall	★★★
Morningstar Rating 3 Yr	★★
Morningstar Return % Rank Cat 3 Yr	65
Morningstar Rating 5 Yr	★★★
Morningstar Return % Rank Cat 5 Yr	43
Morningstar Rating 10 Yr	★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	58

Key Statistics

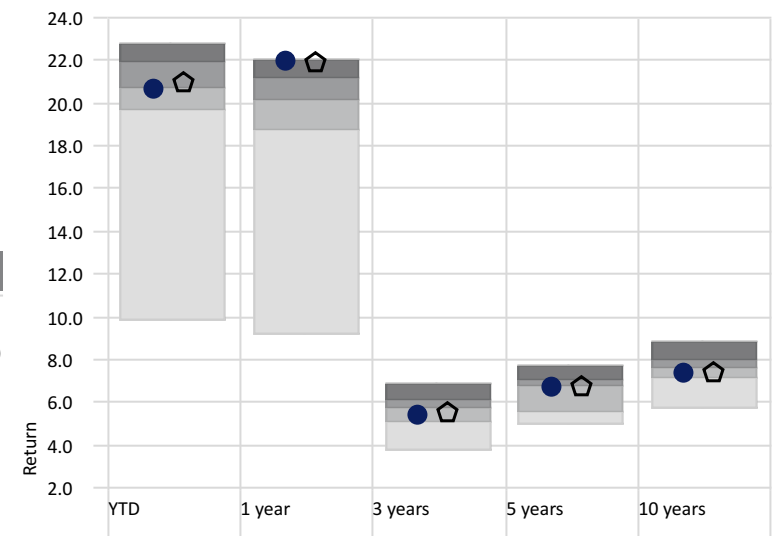
Arithmetic Mean 3 Yr (Mo-End)	0.48
Std Dev 3 Yr (Mo-End)	8.90
Alpha 3 Yr (Mo-End)	0.63
Sharpe Ratio 3 Yr (Mo-End)	0.47
Arithmetic Mean 5 Yr (Mo-End)	0.58
Std Dev 5 Yr (Mo-End)	8.73
Alpha 5 Yr (Mo-End)	-0.49
Sharpe Ratio 5 Yr (Mo-End)	0.68

Investment Strategy

The investment seeks to track the performance of the Bloomberg Barclays U.S. Long Government/Credit Float Adjusted Index. Bloomberg Barclays U.S. Long Government/Credit Float Adjusted Index includes all medium and larger issues of U.S. government, investment-grade corporate, and investment-grade international dollar-denominated bonds that have maturities of greater than 10 years and are publicly issued. All of its investments will be selected through the sampling process, and at least 80% of the fund's assets will be invested in bonds held in the index.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Long-Term Bond

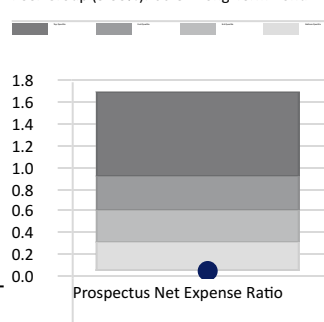


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Vanguard Long-Term Bond Index Instl	20.71	22.05	5.47	6.80	7.42
BBgBarc US L Govt/Credit Fl Adj TR USD	20.94	21.88	5.56	6.81	7.42
Median	20.72	20.14	5.80	6.76	7.59
5th Percentile	22.79	22.01	6.85	7.73	8.80
25th Percentile	21.88	21.15	6.15	7.11	8.00
50th Percentile	20.72	20.14	5.80	6.76	7.59
75th Percentile	19.68	18.78	5.10	5.54	7.19
95th Percentile	9.90	9.21	3.84	5.00	5.77

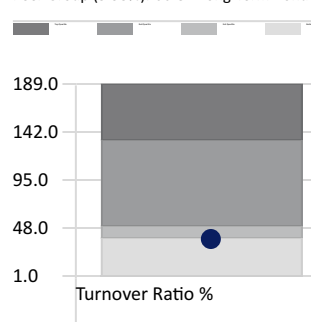
Expense vs Peer Group

Peer Group (5-95%): US OE Long-Term Bond



Turnover vs Peer Group

Peer Group (5-95%): US OE Long-Term Bond



Vanguard Long-Term Bond Index Instl

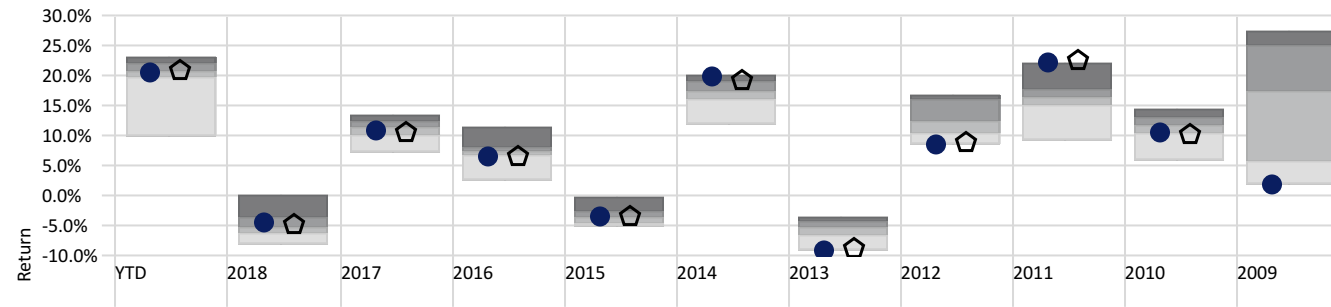
VBLLX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Long-Term Bond Calculation Benchmark: BBgBarc US L Govt/Credit FI Adj TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



● Vanguard Long-Term Bond Index Instl

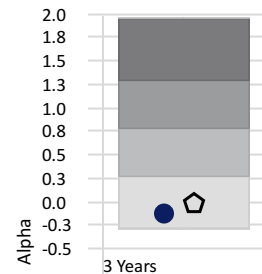
★ BBgBarc US L Govt/Credit FI Adj TR USD

As of Date: 9/30/2019 Calculation Benchmark: BBgBarc US L Govt/Credit FI Adj TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Vanguard Long-Term Bond Index Instl	20.71	-4.41	10.87	6.51	-3.37	19.87	-9.01	8.63	22.23	10.43	1.91
BBgBarc US L Govt/Credit FI Adj TR USD	20.94	-4.68	10.72	6.68	-3.31	19.31	-8.83	8.79	22.49	10.16	
Count	32	31	30	28	25	25	24	22	20	19	17
25th Percentile	21.88	-3.91	12.31	8.00	-2.74	18.90	-4.35	15.78	17.59	12.91	24.97
50th Percentile	20.72	-5.32	11.35	7.23	-3.64	17.39	-5.55	12.11	16.36	11.53	17.09
75th Percentile	19.68	-6.58	9.97	6.52	-4.63	15.88	-6.64	10.32	15.06	10.36	5.62

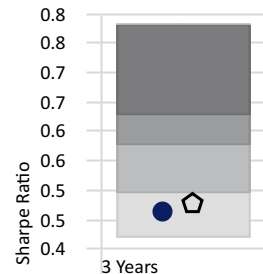
3 Yr Alpha

Peer Group (5-95%): US OE Long-Term Bond



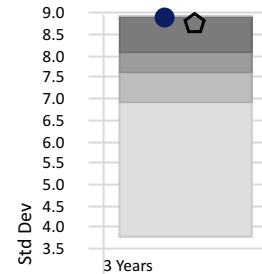
3 Yr Sharpe

Peer Group (5-95%): US OE Long-Term Bond



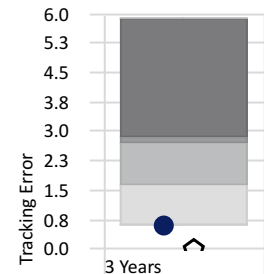
3 Yr Std Deviation

Peer Group (5-95%): US OE Long-Term Bond



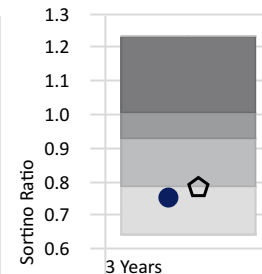
3 Yr Tracking Error

Peer Group (5-95%): US OE Long-Term Bond



3 Yr Sortino

Peer Group (5-95%): US OE Long-Term Bond



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Vanguard Long-Term Bond Index Instl	8.90	0.47	-0.12	1.01	0.76	-0.14	47.22	0.62
BBgBarc US L Govt/Credit FI Adj TR USD	8.77	0.48			0.78			

US OE Long-Term Bond

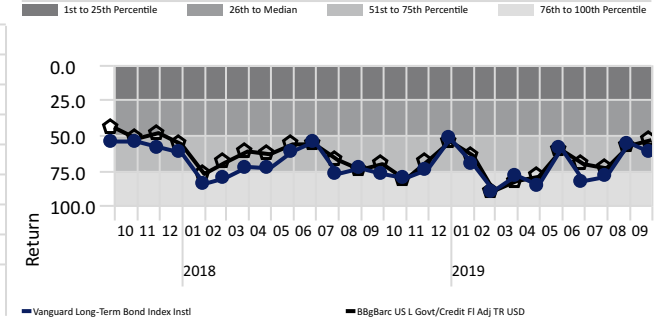
Vanguard Long-Term Bond Index Instl	8.90	0.47	-0.12	1.01	0.76	-0.14	47.22	0.62
BBgBarc US L Govt/Credit FI Adj TR USD	8.77	0.48			0.78			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

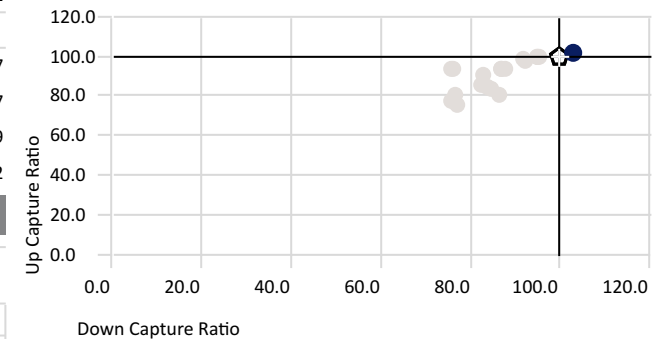
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: BBgBarc US L Govt/Credit FI Adj TR USD



Up/Down Market Capture Ratio

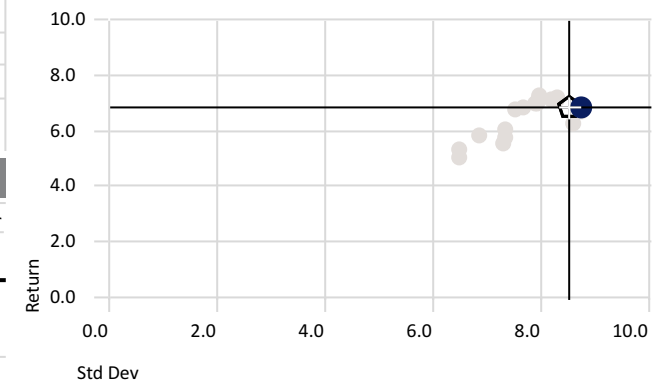
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: BBgBarc US L Govt/Credit FI Adj TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



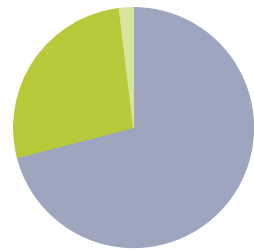
PIMCO Long Duration Total Return Instl

PLRIX



Asset Allocation

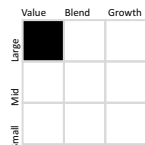
Portfolio Date: 6/30/2019



Stock	0.0
Bond	71.0
Cash	27.1
Other	1.9
Total	100.0

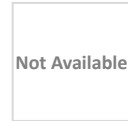
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	0.0	
Consumer Cyclical %	0.0	
Financial Services %	100.0	
Real Estate %	0.0	
Consumer Defensive %	0.0	
Healthcare %	0.0	
Utilities %	0.0	
Communication Services %	0.0	
Energy %	0.0	
Industrials %	0.0	
Technology %	0.0	

Credit Quality

Avg Eff Duration	15.0
Avg Eff Maturity	25.9
Avg Cred Qual	
Cred Qual AAA%	
Cred Qual AA%	
Cred Qual A%	
Credit Qual BBB %	
Credit Qual BB %	
Credit Qual B %	
Credit Qual Below B %	

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
US Ultra Bond (CBT) Sept19		2,051		54.98%
Irs Usd 2.60000 03/16/20-1y (Red) Cme		1,730		46.37%
Federal National Mortgage Association 4%		309		8.29%
Federal National Mortgage Association 4%		243		6.51%
Iro Usd 2y C 2.45000 M 05/11/20 Myc		160		4.29%
United States Treasury Notes 1.12%		138		3.69%
Federal National Mortgage Association 3.5%		115		3.09%
United States Treasury Notes 1.38%		113		3.03%
Irs Usd 2.74000 12/05/18-5y Cme		111		2.98%
Pimco Fds		110		2.96%
Turnover Ratio %				189.00
% Asset in Top 10 Holdings				-15.29

Key Information

Ticker	PLRIX
Morningstar Category	US Fund Long-Term Bond
Firm Name	PIMCO
Advisor	Pacific Investment Management Company, LLC
Manager Name	Multiple
Inception Date	8/31/2006
Fund Size (Mil)	3,395.75
Prospectus Net Expense Ratio	0.97
Firm Name	PIMCO
Web Address	www.pimco.com

Key Information

Morningstar Rating Overall	★★★★
Morningstar Rating 3 Yr	★★★★
Morningstar Return % Rank Cat 3 Yr	20
Morningstar Rating 5 Yr	★★★★★
Morningstar Return % Rank Cat 5 Yr	8
Morningstar Rating 10 Yr	★★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	32

Key Statistics

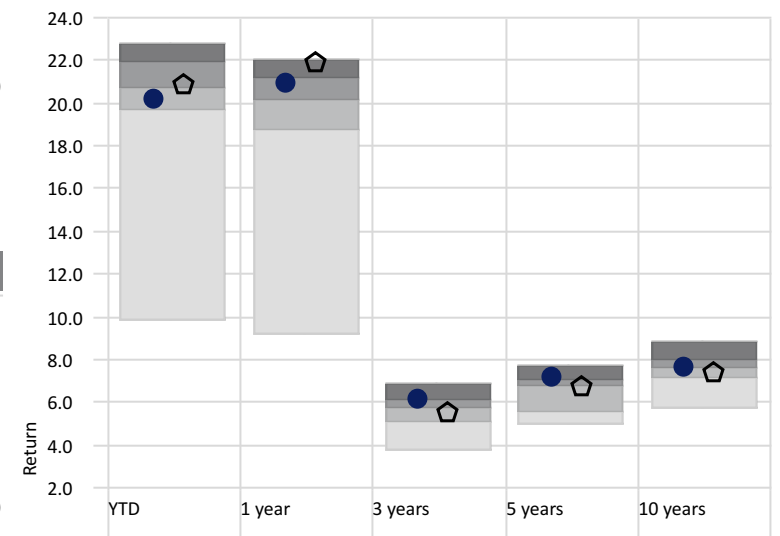
Arithmetic Mean 3 Yr (Mo-End)	0.53
Std Dev 3 Yr (Mo-End)	8.49
Alpha 3 Yr (Mo-End)	1.48
Sharpe Ratio 3 Yr (Mo-End)	0.57
Arithmetic Mean 5 Yr (Mo-End)	0.61
Std Dev 5 Yr (Mo-End)	8.30
Alpha 5 Yr (Mo-End)	0.20
Sharpe Ratio 5 Yr (Mo-End)	0.76

Investment Strategy

The investment seeks maximum total return, consistent with prudent investment management. The fund invests at least 65% of its total assets in a diversified portfolio of Fixed Income Instruments of varying maturities, which may be represented by forwards or derivatives such as options, futures contracts or swap agreements. "Fixed Income Instruments" include bonds, debt securities and other similar instruments issued by various U.S. and non-U.S. public- or private-sector entities. It may invest up to 30% of its total assets in securities denominated in foreign currencies, and may invest beyond this limit in U.S. dollar-denominated securities of foreign issuers.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Long-Term Bond

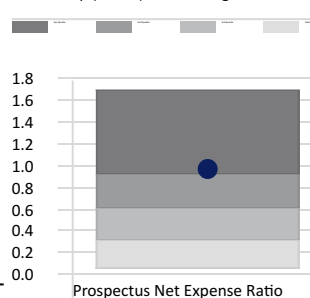


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
PIMCO Long Duration Total Return Instl	20.19	21.02	6.23	7.21	7.69
BBgBarc US Govt/Credit Long TR USD	20.93	21.88	5.56	6.81	7.42
Median	20.72	20.14	5.80	6.76	7.59
5th Percentile	22.79	22.01	6.85	7.73	8.80
25th Percentile	21.88	21.15	6.15	7.11	8.00
50th Percentile	20.72	20.14	5.80	6.76	7.59
75th Percentile	19.68	18.78	5.10	5.54	7.19
95th Percentile	9.90	9.21	3.84	5.00	5.77

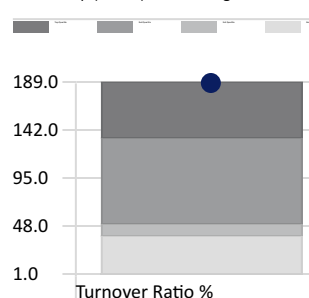
Expense vs Peer Group

Peer Group (5-95%): US OE Long-Term Bond



Turnover vs Peer Group

Peer Group (5-95%): US OE Long-Term Bond



PIMCO Long Duration Total Return Instl

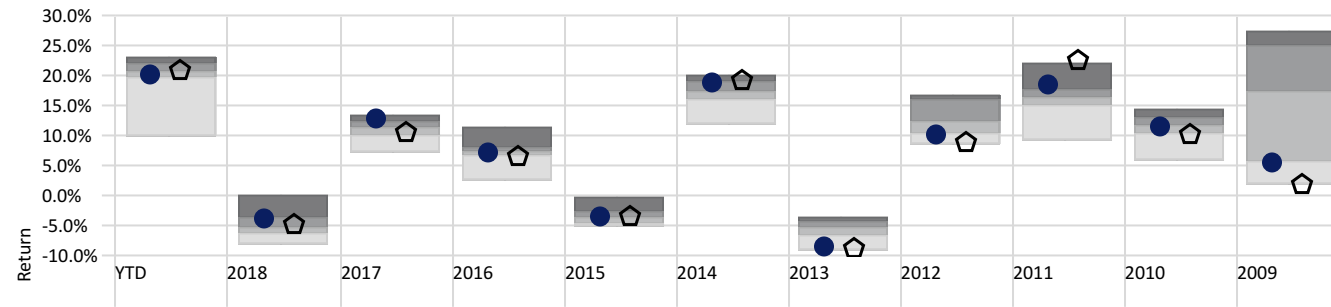
PLRIX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Long-Term Bond Calculation Benchmark: BBgBarc US Govt/Credit Long TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



PIMCO Long Duration Total Return Instl

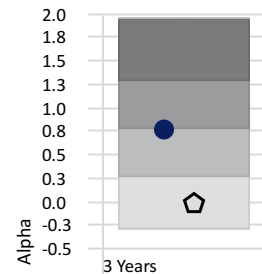
BBgBarc US Govt/Credit Long TR USD

As of Date: 9/30/2019 Calculation Benchmark: BBgBarc US Govt/Credit Long TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
PIMCO Long Duration Total Return Instl	20.19	-3.86	12.75	7.18	-3.44	19.02	-8.56	10.28	18.57	11.64	5.62
BBgBarc US Govt/Credit Long TR USD	20.93	-4.68	10.71	6.67	-3.30	19.31	-8.83	8.78	22.49	10.16	1.92
Count	32	31	30	28	25	25	24	22	20	19	17
25th Percentile	21.88	-3.91	12.31	8.00	-2.74	18.90	-4.35	15.78	17.59	12.91	24.97
50th Percentile	20.72	-5.32	11.35	7.23	-3.64	17.39	-5.55	12.11	16.36	11.53	17.09
75th Percentile	19.68	-6.58	9.97	6.52	-4.63	15.88	-6.64	10.32	15.06	10.36	5.62

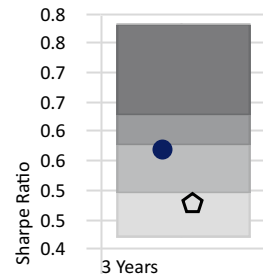
3 Yr Alpha

Peer Group (5-95%): US OE Long-Term Bond



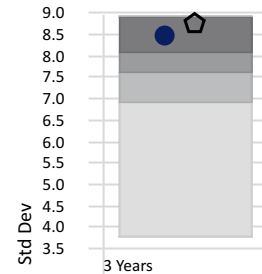
3 Yr Sharpe

Peer Group (5-95%): US OE Long-Term Bond



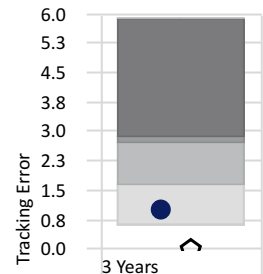
3 Yr Std Deviation

Peer Group (5-95%): US OE Long-Term Bond



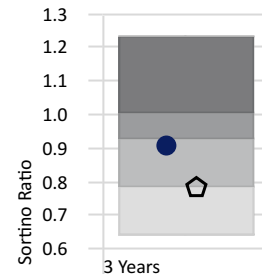
3 Yr Tracking Error

Peer Group (5-95%): US OE Long-Term Bond



3 Yr Sortino

Peer Group (5-95%): US OE Long-Term Bond



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
PIMCO Long Duration Total Return Instl	8.49	0.57	0.78	0.96	0.91	0.66	61.11	1.02
BBgBarc US Govt/Credit Long TR USD	8.77	0.48			0.78			

US OE Long-Term Bond

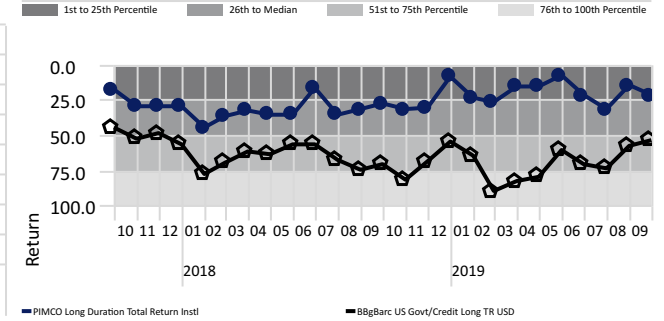
PIMCO Long Duration Total Return Instl	8.49	0.57	0.78	0.96	0.91	0.66	61.11	1.02
BBgBarc US Govt/Credit Long TR USD	8.77	0.48			0.78			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

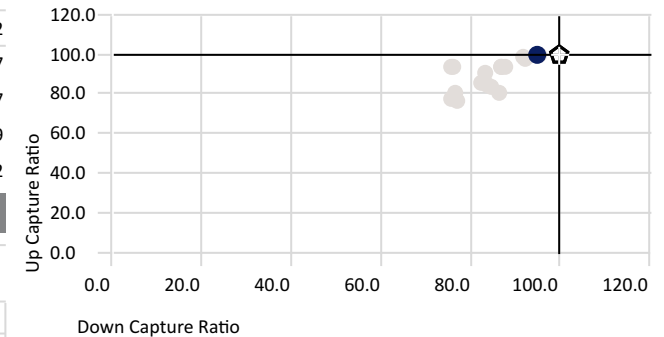
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: BBgBarc US Govt/Credit Long TR USD



Up/Down Market Capture Ratio

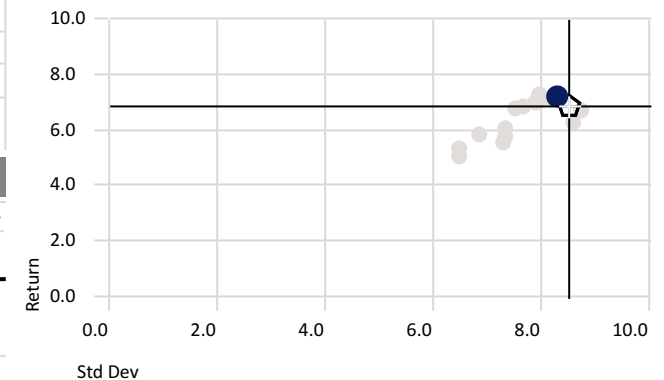
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: BBgBarc US Govt/Credit Long TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



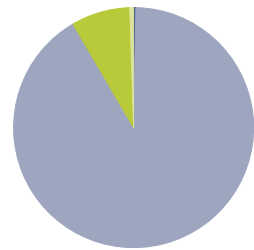
PGIM High Yield R6

PHYQX



Asset Allocation

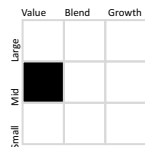
Portfolio Date: 8/31/2019



• Stock	0.3	%
• Bond	91.3	
• Cash	7.9	
• Other	0.5	
Total	100.0	

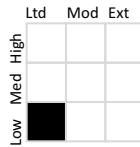
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv Bmk1
Basic Materials %	0.0
Consumer Cyclical %	0.2
Financial Services %	0.0
Real Estate %	0.0
Consumer Defensive %	0.0
Healthcare %	0.0
Utilities %	94.8
Communication Services %	0.0
Energy %	5.0
Industrials %	0.0
Technology %	0.0

Credit Quality

Avg Eff Duration	3.5
Avg Eff Maturity	
Avg Cred Qual	B
Cred Qual AAA%	
Cred Qual AA%	
Cred Qual A%	
Credit Qual BBB %	
Credit Qual BB %	
Credit Qual B %	
Credit Qual Below B %	

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
Pgim Core Ultra Short Bond Fund		710		7.38%
DISH DBS Corporation 7.75%		149		1.55%
Calpine Corporation 5.75%		112		1.17%
Financial & Risk US Holdings Inc 8.25%		92		0.95%
Wand Merger Corporation 9.12%		87		0.90%
Clear Channel Worldwide Holdings Inc. 9.25%		81		0.84%
Sprint Capital Corporation 8.75%		79		0.82%
Banff Merger Sub Inc 9.75%		76		0.79%
Bombardier Inc. 7.88%		76		0.79%
United Rentals (North America), Inc. 4.88%		74		0.77%
Turnover Ratio %				44.00
% Asset in Top 10 Holdings				9.32

Key Information

Ticker	PHYQX
Morningstar Category	US Fund High Yield Bond
Firm Name	PGIM Funds (Prudential)
Advisor	PGIM Investments LLC
Manager Name	Multiple
Inception Date	10/31/2011
Fund Size (Mil)	10,852.90
Prospectus Net Expense Ratio	0.42
Firm Name	PGIM Funds (Prudential)
Web Address	www.pgiminvestments.com

Key Information

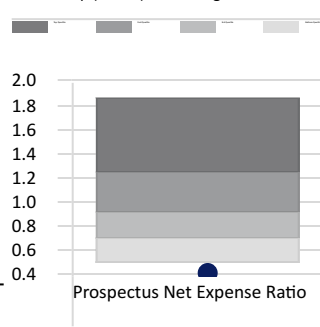
Morningstar Rating Overall	★★★★★
Morningstar Rating 3 Yr	★★★★★
Morningstar Return % Rank Cat 3 Yr	3
Morningstar Rating 5 Yr	★★★★★
Morningstar Return % Rank Cat 5 Yr	2
Morningstar Rating 10 Yr	
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	

Key Statistics

Arithmetic Mean 3 Yr (Mo-End)	0.56
Std Dev 3 Yr (Mo-End)	4.20
Alpha 3 Yr (Mo-End)	4.88
Sharpe Ratio 3 Yr (Mo-End)	1.22
Arithmetic Mean 5 Yr (Mo-End)	0.50
Std Dev 5 Yr (Mo-End)	5.02
Alpha 5 Yr (Mo-End)	4.61
Sharpe Ratio 5 Yr (Mo-End)	1.00

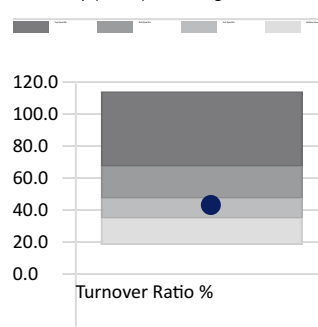
Expense vs Peer Group

Peer Group (5-95%): US OE High Yield Bond



Turnover vs Peer Group

Peer Group (5-95%): US OE High Yield Bond

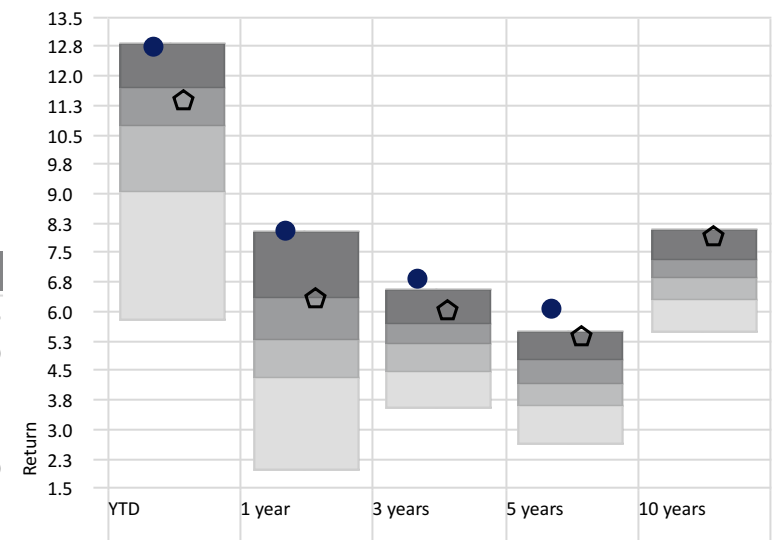


Investment Strategy

The investment seeks to maximize current income; and capital appreciation is a secondary objective. The fund normally invests at least 80% of its investable assets in a diversified portfolio of high yield fixed-income instruments rated Ba or lower by Moody's Investors Service (Moody's) or BB or lower by S&P Global Ratings (Standard & Poor's), and instruments either rated by another nationally recognized statistical rating organization (NRSRO), or considered to be of comparable quality, that is, junk bonds.

Performance Relative to Peer Group

Peer Group (5-95%): US OE High Yield Bond



As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
PGIM High Yield R6	12.78	8.11	6.85	6.09	
BBGBarc High Yield Corporate TR USD	11.41	6.36	6.07	5.37	7.94
Median	10.75	5.29	5.20	4.15	6.85
5th Percentile	12.85	8.01	6.54	5.49	8.07
25th Percentile	11.71	6.35	5.69	4.79	7.30
50th Percentile	10.75	5.29	5.20	4.15	6.85
75th Percentile	9.05	4.31	4.48	3.58	6.29
95th Percentile	5.77	1.99	3.55	2.62	5.50

PGIM High Yield R6

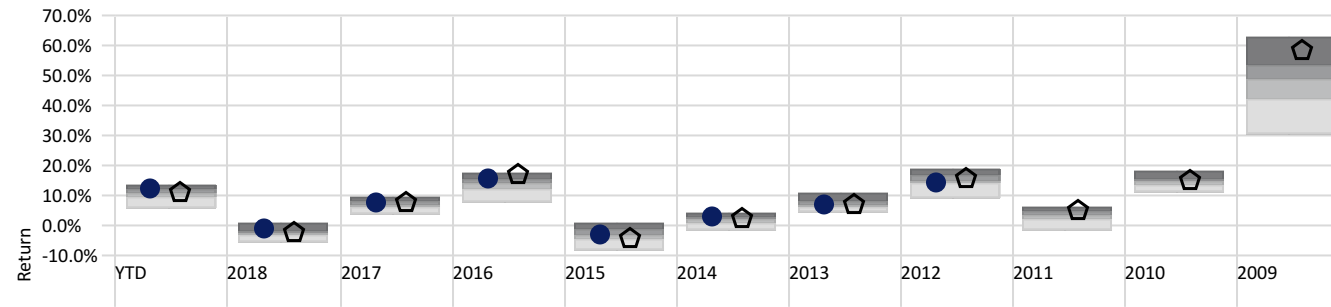
PHYQX



Performance Relative to Peer Group

Peer Group (5-95%): US OE High Yield Bond Calculation Benchmark: BBgBarc High Yield Corporate TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



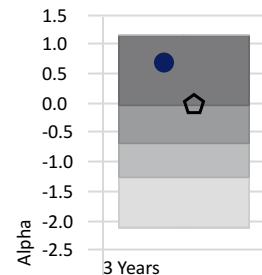
PGIM High Yield R6 BBgBarc High Yield Corporate TR USD

As of Date: 9/30/2019 Calculation Benchmark: BBgBarc High Yield Corporate TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
PGIM High Yield R6	12.78	-1.18	7.70	15.61	-2.68	2.95	7.15	14.45			
BBgBarc High Yield Corporate TR USD	11.41	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12	58.21
Count	677	651	594	573	528	485	447	393	361	340	319
25th Percentile	11.71	-2.01	7.52	15.33	-1.82	2.48	7.82	16.30	4.48	15.45	53.10
50th Percentile	10.75	-2.94	6.70	13.53	-3.75	1.62	6.55	14.64	3.34	14.27	48.42
75th Percentile	9.05	-3.84	5.92	11.74	-5.18	0.49	5.55	13.48	2.02	13.24	41.68

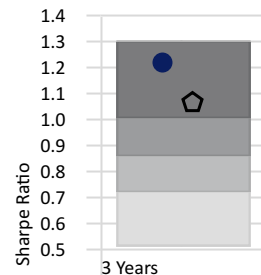
3 Yr Alpha

Peer Group (5-95%): US OE High Yield Bond



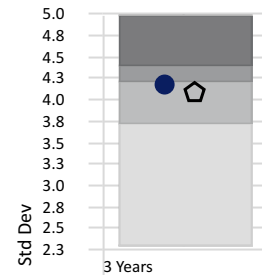
3 Yr Sharpe

Peer Group (5-95%): US OE High Yield Bond



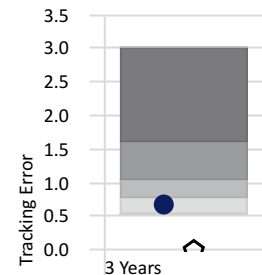
3 Yr Std Deviation

Peer Group (5-95%): US OE High Yield Bond



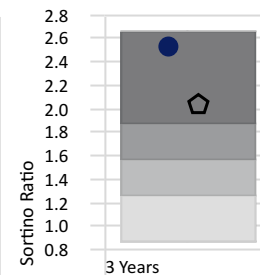
3 Yr Tracking Error

Peer Group (5-95%): US OE High Yield Bond



3 Yr Sortino

Peer Group (5-95%): US OE High Yield Bond



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years

US OE High Yield Bond

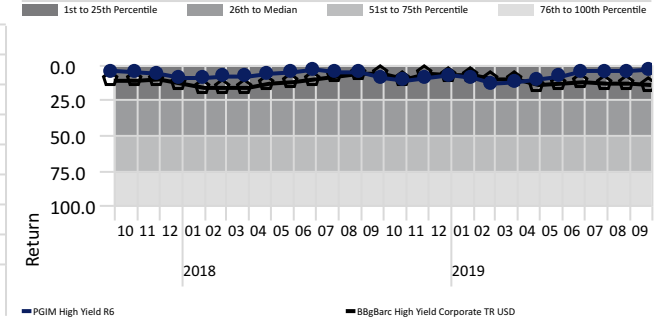
PGIM High Yield R6	4.20	1.22	0.70	1.01	2.55	1.12	61.11	0.70
BBgBarc High Yield Corporate TR USD	4.09	1.07			2.04			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

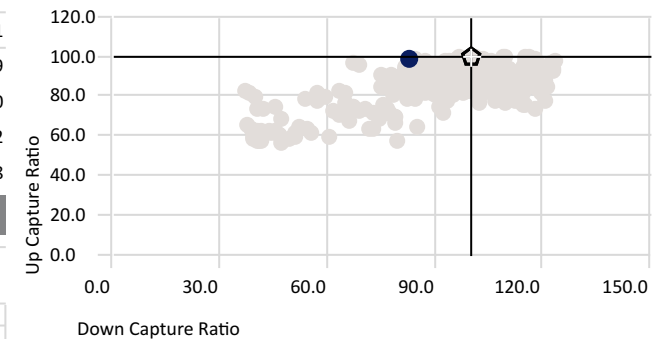
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: BBgBarc High Yield Corporate TR USD



Up/Down Market Capture Ratio

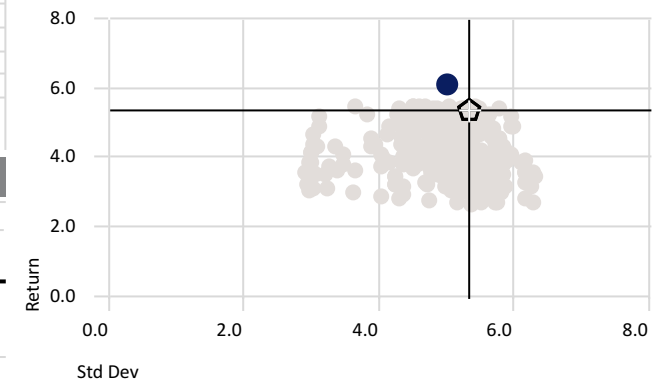
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: BBgBarc High Yield Corporate TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



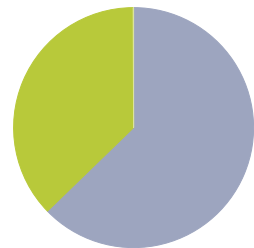
Columbia Strategic Income Inst3

CPHUX



Asset Allocation

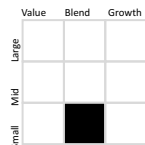
Portfolio Date: 6/30/2019



• Stock	0.0	%
• Bond	62.7	
• Cash	37.2	
• Other	0.1	
Total	100.0	

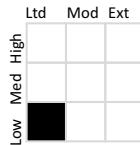
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv Bmk1
Basic Materials %	16.3
Consumer Cyclical %	83.4
Financial Services %	0.0
Real Estate %	0.0
Consumer Defensive %	0.0
Healthcare %	0.0
Utilities %	0.0
Communication Services %	0.3
Energy %	0.0
Industrials %	0.0
Technology %	0.0

Credit Quality

Avg Eff Duration	2.8
Avg Eff Maturity	8.2
Avg Cred Qual	BB
Cred Qual AAA%	9.6
Cred Qual AA%	7.7
Cred Qual A%	7.9
Credit Qual BBB %	23.73
Credit Qual BB %	14.10
Credit Qual B %	16.98
Credit Qual Below B %	2.38

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
10yr Rtr 2.500000 04-Mar-2020		505		9.40%
Federal National Mortgage Association 3.5%		245		4.57%
US 5 Year Note (CBT) Sept19		234		4.36%
Columbia Short-Term Cash		164		3.05%
Federal National Mortgage Association 4%		128		2.38%
Federal National Mortgage Association 5%		127		2.36%
Goldman Sachs Group, Inc. 4.22%		39		0.73%
Barings Clo Limited 4.18%		38		0.71%
Pnmac Gsmr Issuer Trust 5.25%		35		0.65%
Government National Mortgage Association 3%		33		0.61%
Turnover Ratio %			152.00	
% Asset in Top 10 Holdings			-48.71	

Key Information

Ticker	CPHUX
Morningstar Category	US Fund Nontraditional Bond
Firm Name	Columbia
Advisor	Columbia Mgmt Investment Advisers, LLC
Manager Name	Multiple
Inception Date	6/13/2013
Fund Size (Mil)	5,121.17
Prospectus Net Expense Ratio	0.61
Firm Name	Columbia
Web Address	www.columbiathreadneedleus.com

Key Information

Morningstar Rating Overall	★★★★★
Morningstar Rating 3 Yr	★★★★
Morningstar Return % Rank Cat 3 Yr	20
Morningstar Rating 5 Yr	★★★★★
Morningstar Return % Rank Cat 5 Yr	5
Morningstar Rating 10 Yr	
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	

Key Statistics

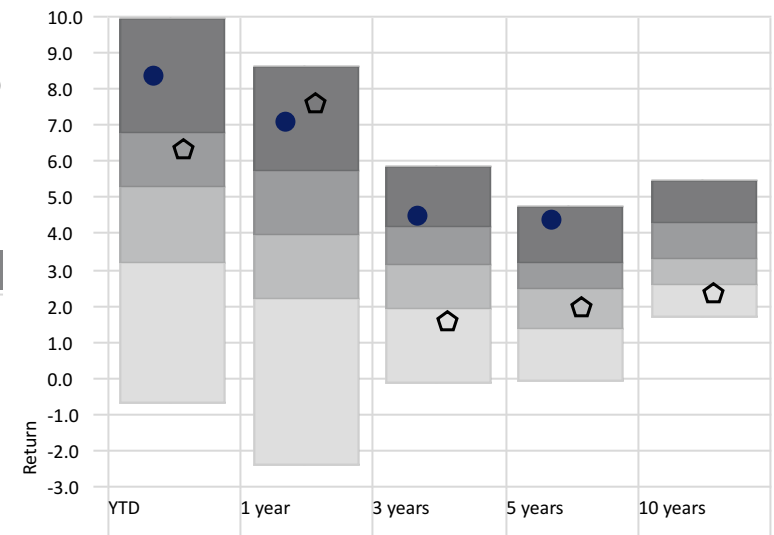
Arithmetic Mean 3 Yr (Mo-End)	0.37
Std Dev 3 Yr (Mo-End)	2.58
Alpha 3 Yr (Mo-End)	2.49
Sharpe Ratio 3 Yr (Mo-End)	1.12
Arithmetic Mean 5 Yr (Mo-End)	0.37
Std Dev 5 Yr (Mo-End)	3.29
Alpha 5 Yr (Mo-End)	2.92
Sharpe Ratio 5 Yr (Mo-End)	1.03

Investment Strategy

The investment seeks total return, consisting of current income and capital appreciation. Under normal circumstances, the fund has substantial exposure to fixed-income/debt markets. It may invest in U.S. government bonds and notes, U.S. and international bonds and notes, investment grade corporate (or similar) bonds and notes, mortgage- and other asset-backed securities, high yield (i.e., junk) instruments, floating rate loans and other floating rate debt securities, inflation-protected/linked securities, convertible securities, cash/cash equivalents, as well as foreign government, sovereign and quasi-sovereign debt investments.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Non Traditional Bond

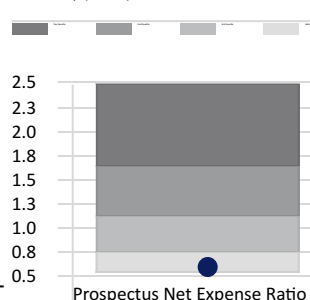


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Columbia Strategic Income Inst3	8.39	7.11	4.54	4.43	
BBGBarc Global Aggregate TR USD	6.32	7.60	1.59	1.99	2.34
Median	5.31	3.95	3.16	2.47	3.32
5th Percentile	9.94	8.61	5.86	4.76	5.44
25th Percentile	6.78	5.74	4.21	3.21	4.28
50th Percentile	5.31	3.95	3.16	2.47	3.32
75th Percentile	3.19	2.19	1.95	1.40	2.59
95th Percentile	-0.66	-2.39	-0.13	-0.03	1.68

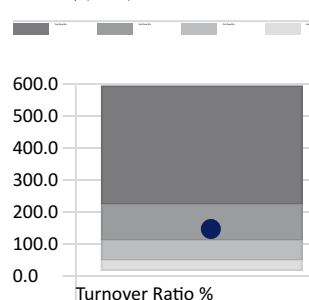
Expense vs Peer Group

Peer Group (5-95%): US OE Non Traditional Bond



Turnover vs Peer Group

Peer Group (5-95%): US OE Non Traditional Bond



Columbia Strategic Income Inst3

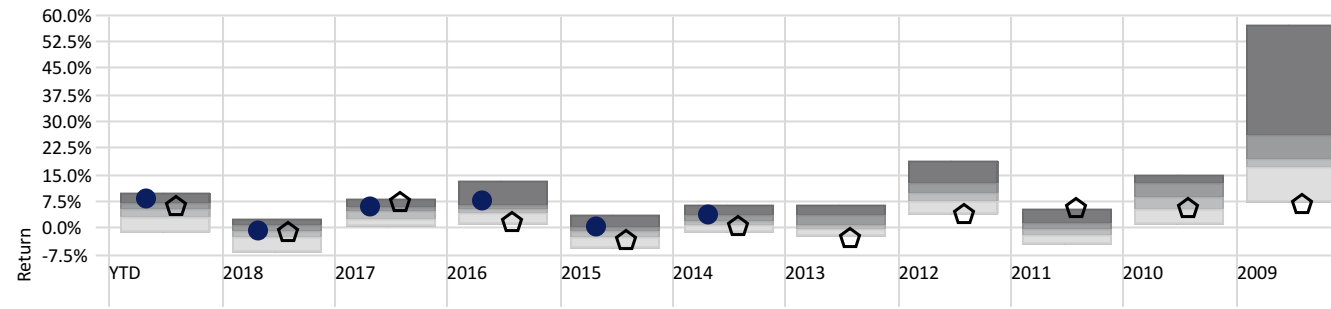
CPHUX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Non Traditional Bond Calculation Benchmark: BBgBarc Global Aggregate TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



● Columbia Strategic Income Inst3

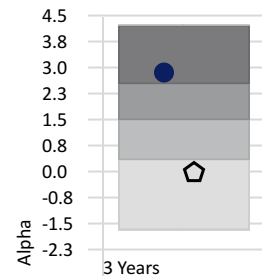
★ BBgBarc Global Aggregate TR USD

As of Date: 9/30/2019 Calculation Benchmark: BBgBarc Global Aggregate TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Columbia Strategic Income Inst3	8.39	-0.64	6.22	8.34	0.66	3.99					
BBgBarc Global Aggregate TR USD	6.32	-1.20	7.39	2.09	-3.15	0.59	-2.60	4.32	5.64	5.54	6.93
Count	302	282	268	253	225	176	141	123	97	76	67
25th Percentile	6.78	0.80	5.91	6.66	0.43	3.60	3.45	12.83	1.38	12.33	26.09
50th Percentile	5.31	-0.66	4.59	5.10	-0.97	2.00	0.95	9.67	-0.49	8.64	19.21
75th Percentile	3.19	-2.64	2.66	4.00	-2.60	1.00	-0.19	7.38	-2.21	5.17	16.94

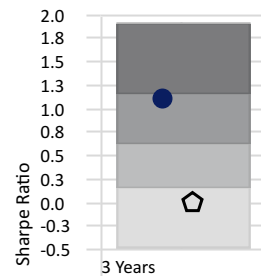
3 Yr Alpha

Peer Group (5-95%): US OE Non Traditional Bond



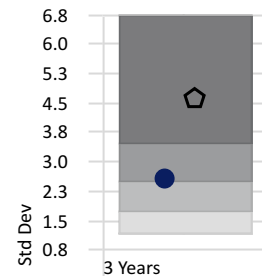
3 Yr Sharpe

Peer Group (5-95%): US OE Non Traditional Bond



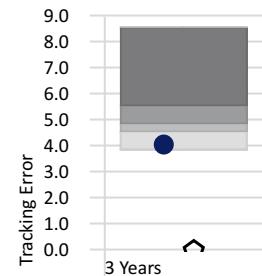
3 Yr Std Deviation

Peer Group (5-95%): US OE Non Traditional Bond



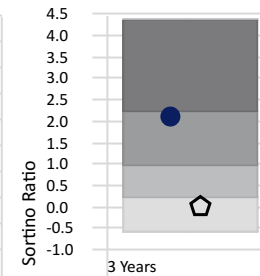
3 Yr Tracking Error

Peer Group (5-95%): US OE Non Traditional Bond



3 Yr Sortino

Peer Group (5-95%): US OE Non Traditional Bond



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years

US OE Nontraditional Bond

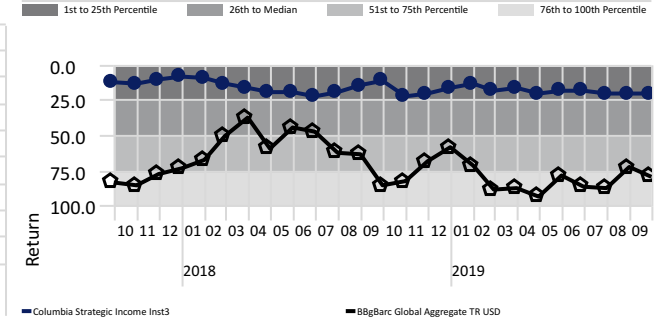
Columbia Strategic Income Inst3	2.58	1.12	2.86	0.26	2.15	0.72	50.00	4.10
BBgBarc Global Aggregate TR USD	4.67	0.02			0.02			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

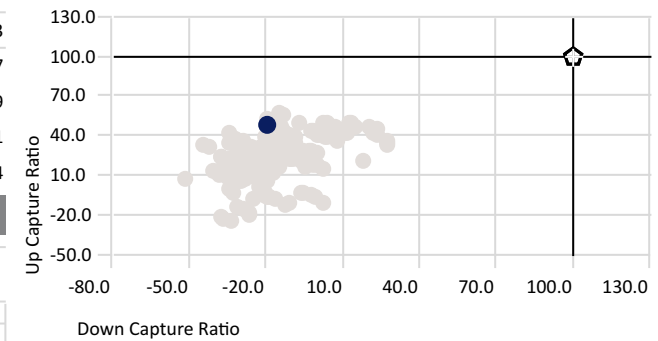
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: BBgBarc Global Aggregate TR USD



Up/Down Market Capture Ratio

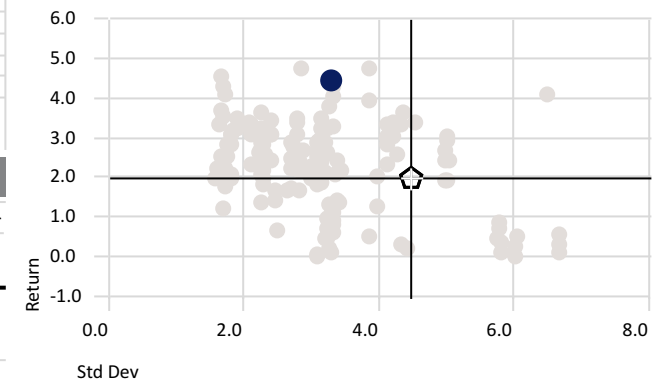
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: BBgBarc Global Aggregate TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



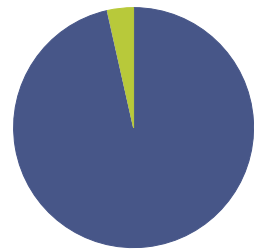
Vanguard Equity-Income Adm

VEIRX



Asset Allocation

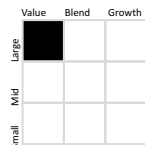
Portfolio Date: 6/30/2019



• Stock	96.5	%
• Bond	0.0	
• Cash	3.5	
• Other	0.0	
Total	100.0	

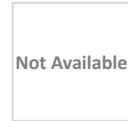
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	2.8	3.6
Consumer Cyclical %	4.8	6.7
Financial Services %	17.9	22.2
Real Estate %	1.3	5.4
Consumer Defensive %	12.9	8.3
Healthcare %	16.1	15.0
Utilities %	8.4	6.4
Communication Services %	6.5	5.5
Energy %	9.0	9.0
Industrials %	10.0	8.3
Technology %	10.3	9.5

Credit Quality

	Avg Eff Duration
	Avg Eff Maturity
	Avg Cred Qual
	Cred Qual AAA%
	Cred Qual AA%
	Cred Qual A%
	Credit Qual BBB %
	Credit Qual BB %
	Credit Qual B %
	Credit Qual Below B %

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
JPMorgan Chase & Co		1,324	1.78	3.71%
Johnson & Johnson		1,117	-1.96	3.13%
Verizon Communications Inc		1,077	5.29	3.02%
Cisco Systems Inc		950	-19.93	2.66%
Pfizer Inc		913	-13.54	2.56%
Chevron Corp		882	-6.83	2.47%
Merck & Co Inc		762	6.91	2.14%
Comcast Corp Class A		729	1.79	2.04%
Intel Corp		729	4.08	2.04%
Bank of America Corporation		712	-0.44	2.00%
Turnover Ratio %				37.00
% Asset in Top 10 Holdings				25.76

Key Information

Ticker	VEIRX
Morningstar Category	US Fund Large Value
Firm Name	Vanguard
Advisor	Multiple
Manager Name	Multiple
Inception Date	8/13/2001
Fund Size (Mil)	36,449.43
Prospectus Net Expense Ratio	0.18
Firm Name	Vanguard
Web Address	www.vanguard.com

Key Information

Morningstar Rating Overall	★★★★★
Morningstar Rating 3 Yr	★★★★
Morningstar Return % Rank Cat 3 Yr	15
Morningstar Rating 5 Yr	★★★★★
Morningstar Return % Rank Cat 5 Yr	9
Morningstar Rating 10 Yr	★★★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	5

Key Statistics

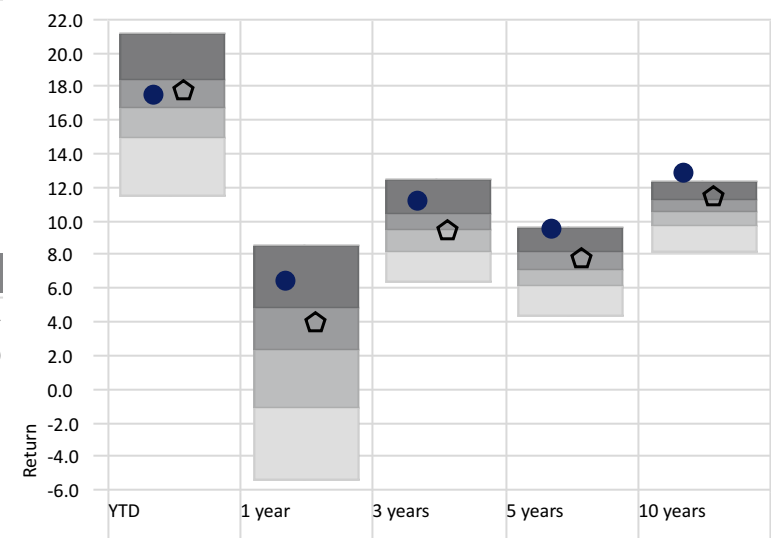
Arithmetic Mean 3 Yr (Mo-End)	0.94
Std Dev 3 Yr (Mo-End)	11.00
Alpha 3 Yr (Mo-End)	-0.47
Sharpe Ratio 3 Yr (Mo-End)	0.88
Arithmetic Mean 5 Yr (Mo-End)	0.82
Std Dev 5 Yr (Mo-End)	10.77
Alpha 5 Yr (Mo-End)	0.05
Sharpe Ratio 5 Yr (Mo-End)	0.81

Investment Strategy

The investment seeks to provide an above-average level of current income and reasonable long-term capital appreciation. The fund invests mainly in common stocks of mid-size and large companies whose stocks typically pay above-average levels of dividend income and are, in the opinion of the purchasing advisor, undervalued relative to similar stocks. In addition, the advisors generally look for companies that they believe are committed to paying dividends consistently. Under normal circumstances, it will invest at least 80% of its assets in equity securities. The fund uses multiple investment advisors.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Large Value

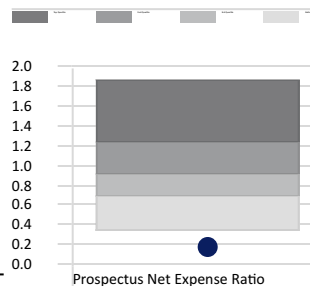


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Vanguard Equity-Income Adm	17.51	6.51	11.24	9.62	12.93
Russell 1000 Value TR USD	17.81	4.00	9.43	7.79	11.46
Median	16.73	2.30	9.44	7.10	10.51
5th Percentile	21.17	8.59	12.44	9.56	12.33
25th Percentile	18.40	4.90	10.49	8.19	11.27
50th Percentile	16.73	2.30	9.44	7.10	10.51
75th Percentile	14.89	-1.14	8.18	6.19	9.74
95th Percentile	11.48	-5.33	6.37	4.32	8.12

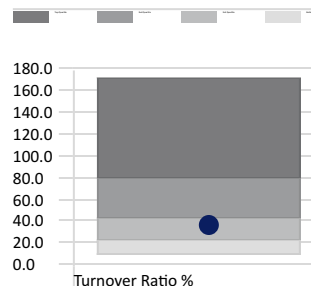
Expense vs Peer Group

Peer Group (5-95%): US OE Large Value



Turnover vs Peer Group

Peer Group (5-95%): US OE Large Value



Vanguard Equity-Income Adm

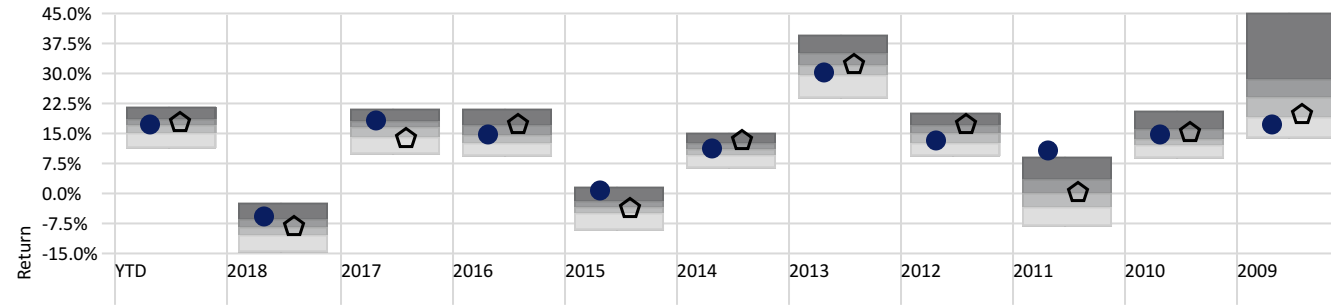
VEIRX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Large Value Calculation Benchmark: Russell 1000 Value TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



● Vanguard Equity-Income Adm

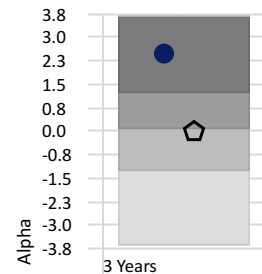
★ Russell 1000 Value TR USD

As of Date: 9/30/2019 Calculation Benchmark: Russell 1000 Value TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Vanguard Equity-Income Adm	17.51	-5.65	18.49	14.82	0.86	11.38	30.19	13.58	10.69	14.99	17.26
Russell 1000 Value TR USD	17.81	-8.27	13.66	17.34	-3.83	13.45	32.53	17.51	0.39	15.51	19.69
Count	1,137	1,114	1,042	1,000	916	864	817	753	725	684	656
25th Percentile	18.40	-6.69	17.99	16.86	-1.91	12.42	34.70	16.95	3.27	15.77	28.42
50th Percentile	16.73	-8.89	16.15	14.25	-3.53	11.01	31.65	14.92	-0.40	13.55	23.94
75th Percentile	14.89	-10.66	13.96	12.40	-5.13	9.35	29.29	12.56	-3.47	11.97	18.95

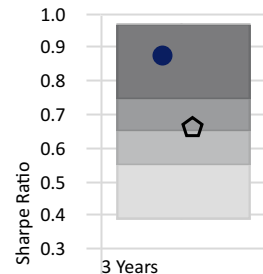
3 Yr Alpha

Peer Group (5-95%): US OE Large Value



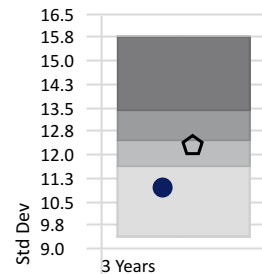
3 Yr Sharpe

Peer Group (5-95%): US OE Large Value



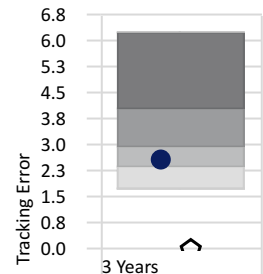
3 Yr Std Deviation

Peer Group (5-95%): US OE Large Value



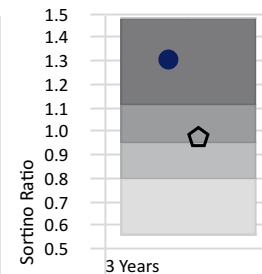
3 Yr Tracking Error

Peer Group (5-95%): US OE Large Value



3 Yr Sortino

Peer Group (5-95%): US OE Large Value



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Vanguard Equity-Income Adm	11.00	0.88	2.52	0.88	1.31	0.71	58.33	2.57
Russell 1000 Value TR USD	12.34	0.66			0.97			

US OE Large Value

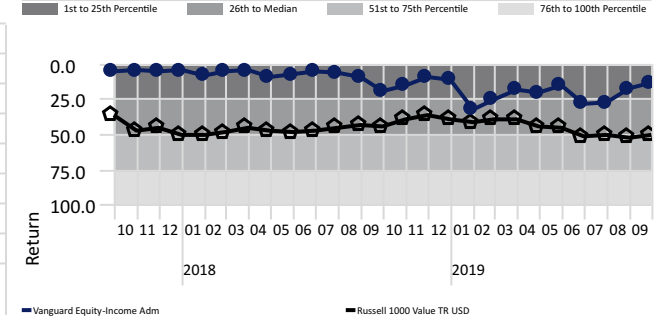
Vanguard Equity-Income Adm	11.00	0.88	2.52	0.88	1.31	0.71	58.33	2.57
Russell 1000 Value TR USD	12.34	0.66			0.97			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

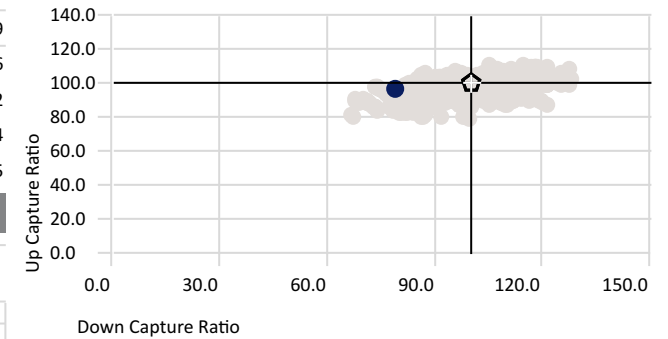
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: Russell 1000 Value TR USD



Up/Down Market Capture Ratio

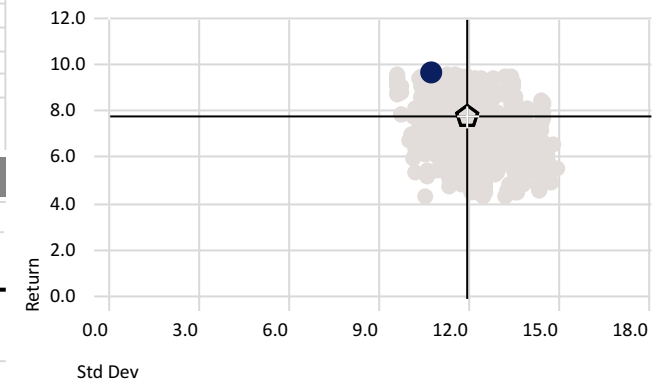
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: Russell 1000 Value TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



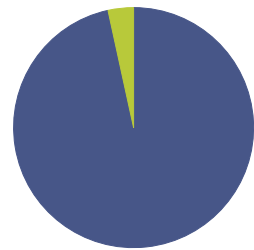
Vanguard PRIMECAP Core Inv

VPCCX



Asset Allocation

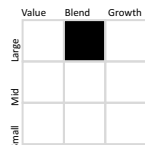
Portfolio Date: 6/30/2019



• Stock	96.6
• Bond	0.0
• Cash	3.4
• Other	0.0
Total	100.0

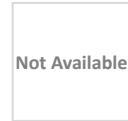
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	1.5	2.5
Consumer Cyclical %	11.3	12.6
Financial Services %	12.2	15.2
Real Estate %	0.0	3.3
Consumer Defensive %	0.4	7.4
Healthcare %	23.4	13.8
Utilities %	0.0	3.2
Communication Services %	0.8	3.4
Energy %	1.3	4.9
Industrials %	19.7	10.4
Technology %	29.5	23.4

Credit Quality

	Avg Eff Duration
	Avg Eff Maturity
	Avg Cred Qual
	Cred Qual AAA%
	Cred Qual AA%
	Cred Qual A%
	Credit Qual BBB %
	Credit Qual BB %
	Credit Qual B %
	Credit Qual Below B %

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
Southwest Airlines Co		443	3.24	4.10%
JPMorgan Chase & Co		380	1.78	3.52%
Eli Lilly and Co		352	0.24	3.26%
Texas Instruments Inc		337	10.31	3.12%
Amgen Inc		314	16.81	2.91%
Microsoft Corp		292	0.80	2.70%
AstraZeneca PLC ADR		283	10.15	2.62%
Novartis AG ADR		208	-2.56	1.93%
Siemens AG		207	-2.51	1.92%
Biogen Inc		194	-2.45	1.79%
Turnover Ratio %				9.00
% Asset in Top 10 Holdings				27.88

Key Information

Ticker	VPCCX
Morningstar Category	US Fund Large Blend
Firm Name	Vanguard
Advisor	PRIMECAP Management Company
Manager Name	Multiple
Inception Date	12/9/2004
Fund Size (Mil)	10,655.00
Prospectus Net Expense Ratio	0.46
Firm Name	Vanguard
Web Address	www.vanguard.com

Key Information

Morningstar Rating Overall	★★★★
Morningstar Rating 3 Yr	★★★
Morningstar Return % Rank Cat 3 Yr	31
Morningstar Rating 5 Yr	★★★★
Morningstar Return % Rank Cat 5 Yr	13
Morningstar Rating 10 Yr	★★★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	6

Key Statistics

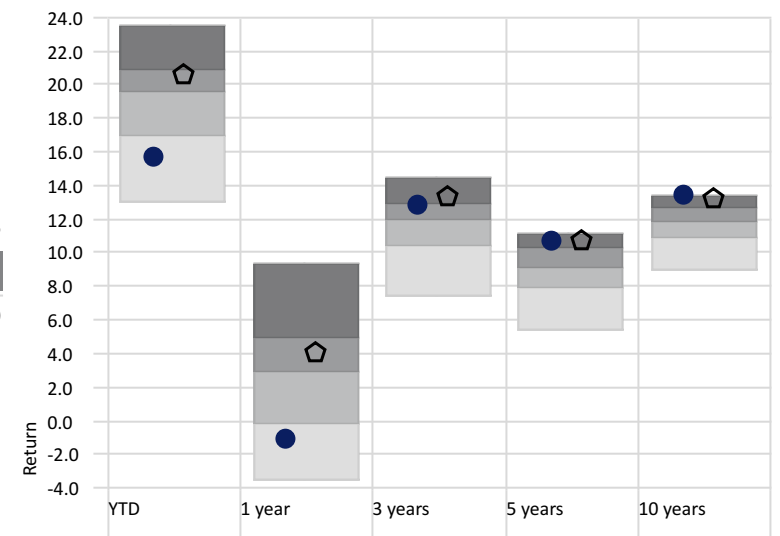
Arithmetic Mean 3 Yr (Mo-End)	1.10
Std Dev 3 Yr (Mo-End)	14.17
Alpha 3 Yr (Mo-End)	-1.62
Sharpe Ratio 3 Yr (Mo-End)	0.82
Arithmetic Mean 5 Yr (Mo-End)	0.93
Std Dev 5 Yr (Mo-End)	13.41
Alpha 5 Yr (Mo-End)	-0.66
Sharpe Ratio 5 Yr (Mo-End)	0.76

Investment Strategy

The investment seeks to provide long-term capital appreciation. The fund invests in stocks that its advisor believes offer a good balance between reasonable valuations and attractive growth prospects relative to their peers. Stocks selected for the fund typically have earnings growth potential that, in the advisor's view, is not reflected in their current market prices. It can invest in stocks across all industry sectors and market capitalizations.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Large Blend

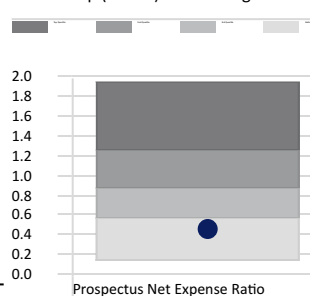


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Vanguard PRIMECAP Core Inv	15.73	-1.06	12.95	10.81	13.56
MSCI US Prime Market 750 GR USD	20.68	4.09	13.33	10.77	13.28
Median	19.53	2.89	11.97	9.10	11.84
5th Percentile	23.44	9.29	14.41	11.18	13.37
25th Percentile	20.83	4.98	12.95	10.25	12.63
50th Percentile	19.53	2.89	11.97	9.10	11.84
75th Percentile	16.96	-0.11	10.36	7.90	10.87
95th Percentile	13.04	-3.55	7.50	5.43	8.99

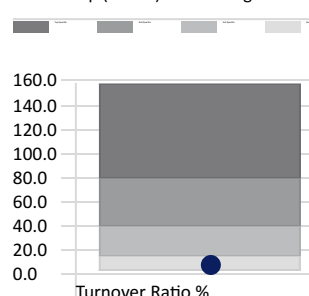
Expense vs Peer Group

Peer Group (5-95%): US OE Large Blend



Turnover vs Peer Group

Peer Group (5-95%): US OE Large Blend



Vanguard PRIMECAP Core Inv

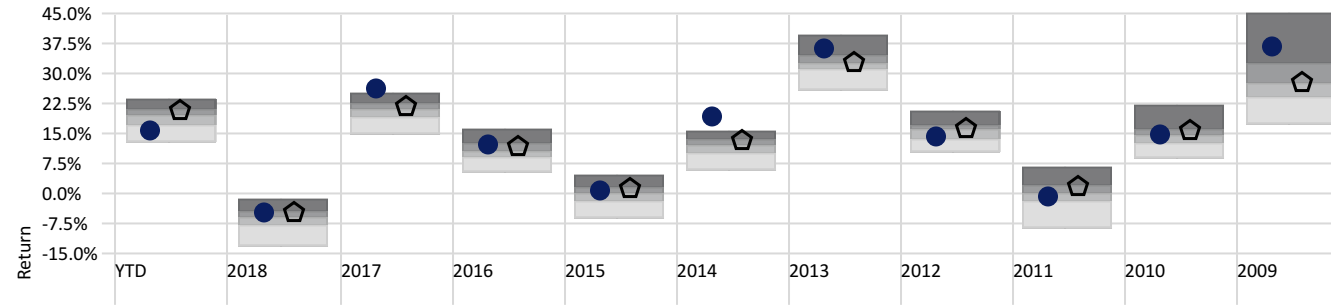
VPCCX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Large Blend Calculation Benchmark: MSCI US Prime Market 750 GR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



● Vanguard PRIMECAP Core Inv

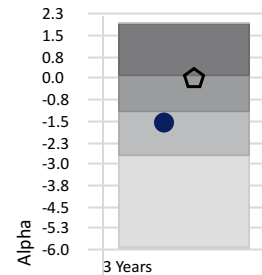
⬠ MSCI US Prime Market 750 GR USD

As of Date: 9/30/2019 Calculation Benchmark: MSCI US Prime Market 750 GR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Vanguard PRIMECAP Core Inv	15.73	-4.90	26.23	12.35	0.94	19.29	36.14	14.57	-0.86	14.88	36.96
MSCI US Prime Market 750 GR USD	20.68	-4.61	21.97	11.72	1.22	13.58	32.83	16.18	1.65	15.92	27.80
Count	1,313	1,257	1,171	1,108	1,045	995	941	895	854	813	768
25th Percentile	20.83	-4.60	22.12	12.20	1.23	13.22	34.43	16.93	1.80	15.85	32.26
50th Percentile	19.53	-6.00	20.89	10.59	-0.19	11.72	32.17	15.64	0.04	14.36	27.28
75th Percentile	16.96	-8.00	19.00	8.73	-2.39	10.08	30.62	13.49	-2.07	12.51	23.93

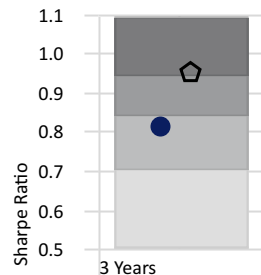
3 Yr Alpha

Peer Group (5-95%): US OE Large Blend



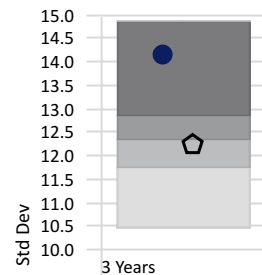
3 Yr Sharpe

Peer Group (5-95%): US OE Large Blend



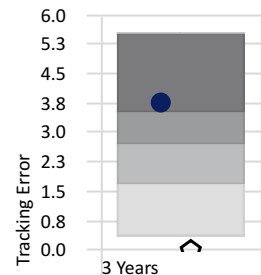
3 Yr Std Deviation

Peer Group (5-95%): US OE Large Blend



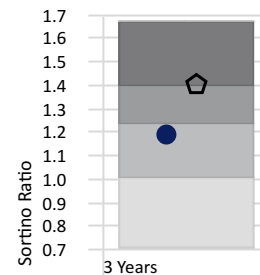
3 Yr Tracking Error

Peer Group (5-95%): US OE Large Blend



3 Yr Sortino

Peer Group (5-95%): US OE Large Blend



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Vanguard PRIMECAP Core Inv	14.17	0.82	-1.48	1.12	1.19	-0.10	58.33	3.81
MSCI US Prime Market 750 GR USD	12.27	0.95			1.41			

US OE Large Blend

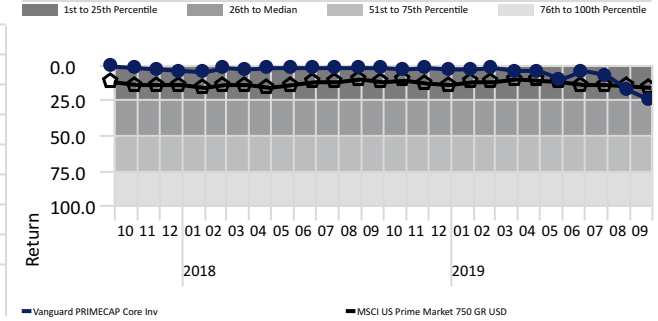
Vanguard PRIMECAP Core Inv	14.17	0.82	-1.48	1.12	1.19	-0.10	58.33	3.81
MSCI US Prime Market 750 GR USD	12.27	0.95			1.41			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

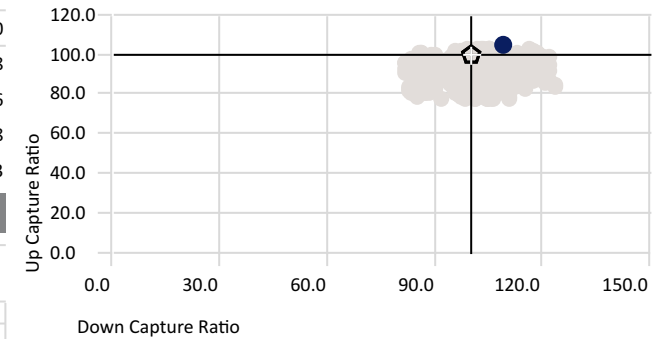
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: MSCI US Prime Market 750 GR USD



Up/Down Market Capture Ratio

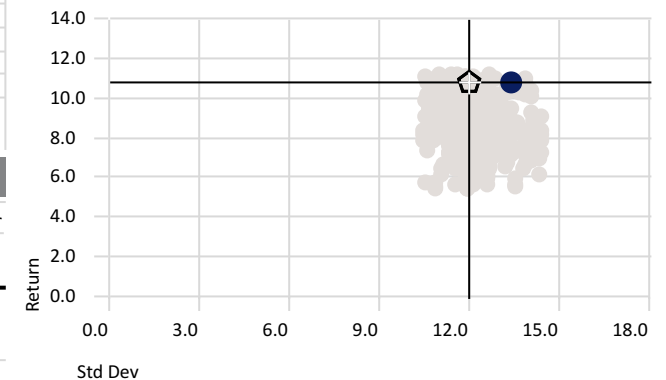
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: MSCI US Prime Market 750 GR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



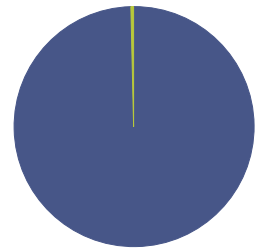
Vanguard Growth Index Admiral

VIGAX



Asset Allocation

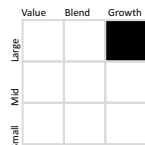
Portfolio Date: 8/31/2019



Stock	99.6
Bond	0.0
Cash	0.4
Other	0.0
Total	100.0

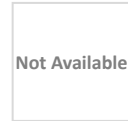
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	2.3	2.3
Consumer Cyclical %	18.2	18.2
Financial Services %	9.0	9.0
Real Estate %	4.4	4.4
Consumer Defensive %	4.0	4.0
Healthcare %	9.3	9.3
Utilities %	0.0	0.0
Communication Services %	3.1	3.1
Energy %	1.5	1.5
Industrials %	9.6	9.6
Technology %	38.6	38.6

Credit Quality

	Avg Eff Duration
	Avg Eff Maturity
	Avg Cred Qual
	Cred Qual AAA%
	Cred Qual AA%
	Cred Qual A%
	Cred Qual BBB %
	Cred Qual BB %
	Cred Qual B %
	Cred Qual Below B %

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
Microsoft Corp		7,549	0.80	8.20%
Apple Inc		6,177	16.40	6.71%
Amazon.com Inc		5,312	-13.65	5.77%
Facebook Inc A		3,188	-10.54	3.46%
Alphabet Inc A		2,545	6.32	2.77%
Alphabet Inc Class C		2,516	6.31	2.73%
Visa Inc Class A		2,247	-1.51	2.44%
Mastercard Inc A		1,828	-1.01	1.99%
The Home Depot Inc		1,792	7.93	1.95%
Comcast Corp Class A		1,433	1.79	1.56%
Turnover Ratio %				11.00
% Asset in Top 10 Holdings				37.59

Key Information

Ticker	VIGAX
Morningstar Category	US Fund Large Growth
Firm Name	Vanguard
Advisor	Vanguard Group Inc
Manager Name	Multiple
Inception Date	11/13/2000
Fund Size (Mil)	92,059.63
Prospectus Net Expense Ratio	0.05
Firm Name	Vanguard
Web Address	www.vanguard.com

Key Information

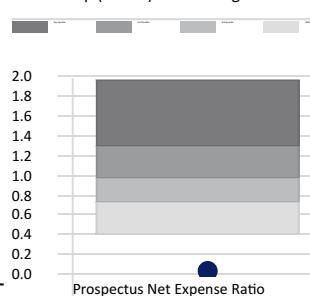
Morningstar Rating Overall	★★★★
Morningstar Rating 3 Yr	★★★
Morningstar Return % Rank Cat 3 Yr	40
Morningstar Rating 5 Yr	★★★
Morningstar Return % Rank Cat 5 Yr	36
Morningstar Rating 10 Yr	★★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	19

Key Statistics

Arithmetic Mean 3 Yr (Mo-End)	1.27
Std Dev 3 Yr (Mo-End)	13.27
Alpha 3 Yr (Mo-End)	1.40
Sharpe Ratio 3 Yr (Mo-End)	1.03
Arithmetic Mean 5 Yr (Mo-End)	1.03
Std Dev 5 Yr (Mo-End)	13.03
Alpha 5 Yr (Mo-End)	0.80
Sharpe Ratio 5 Yr (Mo-End)	0.87

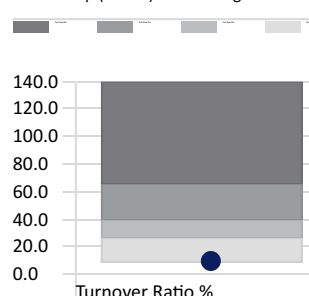
Expense vs Peer Group

Peer Group (5-95%): US OE Large Growth



Turnover vs Peer Group

Peer Group (5-95%): US OE Large Growth

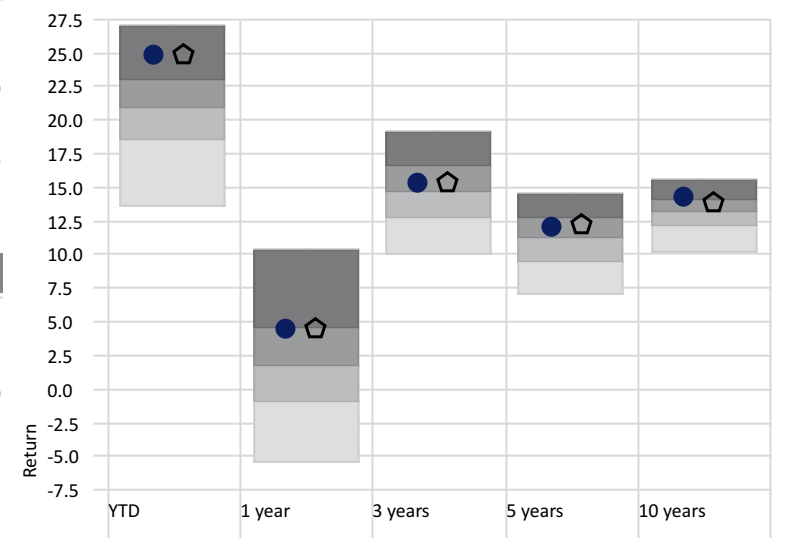


Investment Strategy

The investment seeks to track the performance of a benchmark index that measures the investment return of the CRSP US Large Cap Growth Index. The fund employs an indexing investment approach designed to track the performance of index, a broadly diversified index predominantly made up of growth stocks of large U.S. companies. The advisor attempts to replicate the target index by investing all, or substantially all, of its assets in the stocks that make up the index, holding each stock in approximately the same proportion as its weighting in the index. The fund is non-diversified.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Large Growth



As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Vanguard Growth Index Admiral	24.88	4.52	15.38	12.19	14.38
CRSP US Large Cap Growth TR USD	24.94	4.55	15.42	12.24	13.87
Median	20.87	1.80	14.69	11.23	13.20
5th Percentile	27.00	10.33	19.08	14.58	15.58
25th Percentile	23.06	4.59	16.55	12.77	14.13
50th Percentile	20.87	1.80	14.69	11.23	13.20
75th Percentile	18.60	-0.95	12.75	9.50	12.12
95th Percentile	13.63	-5.33	10.12	7.03	10.15

Vanguard Growth Index Admiral

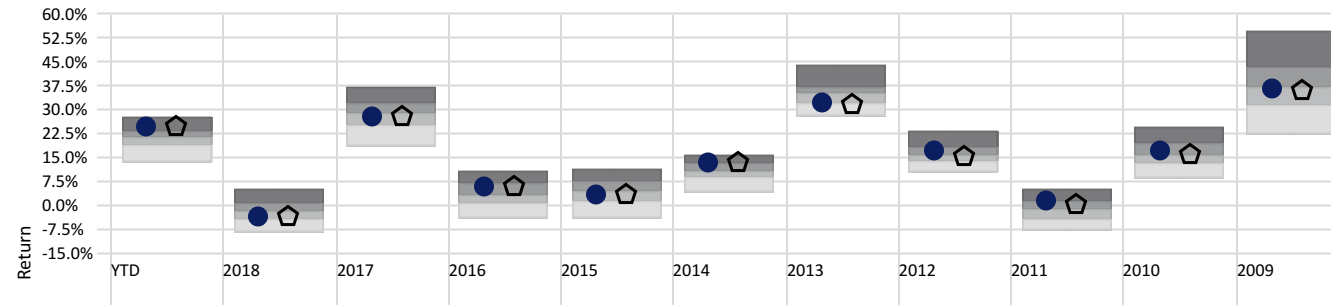
VIGAX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Large Growth Calculation Benchmark: CRSP US Large Cap Growth TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



● Vanguard Growth Index Admiral

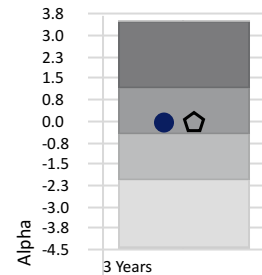
★ CRSP US Large Cap Growth TR USD

As of Date: 9/30/2019 Calculation Benchmark: CRSP US Large Cap Growth TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Vanguard Growth Index Admiral	24.88	-3.34	27.80	6.12	3.30	13.63	32.40	17.01	1.87	17.12	36.42
CRSP US Large Cap Growth TR USD	24.94	-3.34	27.86	6.16	3.38	13.69	31.75	15.20	0.58	15.77	35.92
Count	1,346	1,307	1,226	1,184	1,101	1,051	996	920	865	827	772
25th Percentile	23.06	0.48	31.84	6.62	7.00	12.78	37.00	18.10	1.28	19.11	43.24
50th Percentile	20.87	-2.07	28.30	3.15	4.06	10.54	34.58	15.72	-1.17	15.47	36.47
75th Percentile	18.60	-4.63	24.53	0.66	1.18	8.32	31.87	13.59	-4.42	12.86	31.02

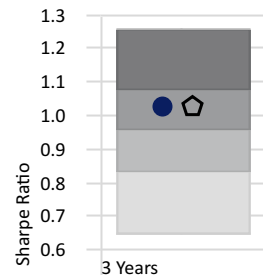
3 Yr Alpha

Peer Group (5-95%): US OE Large Growth



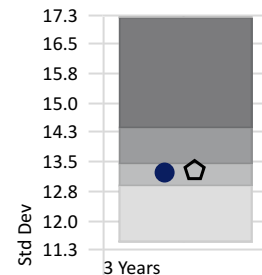
3 Yr Sharpe

Peer Group (5-95%): US OE Large Growth



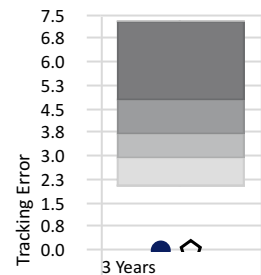
3 Yr Std Deviation

Peer Group (5-95%): US OE Large Growth



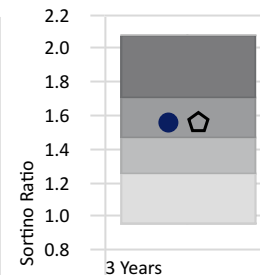
3 Yr Tracking Error

Peer Group (5-95%): US OE Large Growth



3 Yr Sortino

Peer Group (5-95%): US OE Large Growth



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Vanguard Growth Index Admiral	13.27	1.03	-0.02	1.00	1.56	-1.25	36.11	0.03
CRSP US Large Cap Growth TR USD	13.28	1.03			1.56			

US OE Large Growth

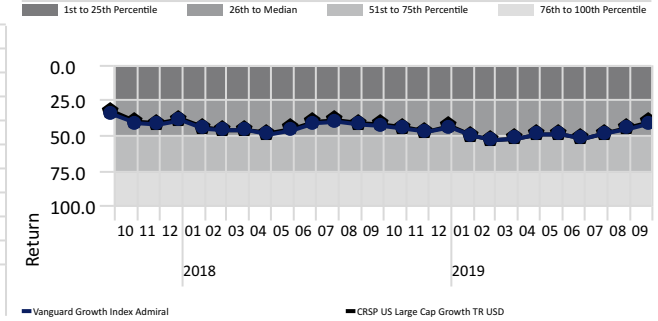
Vanguard Growth Index Admiral	13.27	1.03	-0.02	1.00	1.56	-1.25	36.11	0.03
CRSP US Large Cap Growth TR USD	13.28	1.03			1.56			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

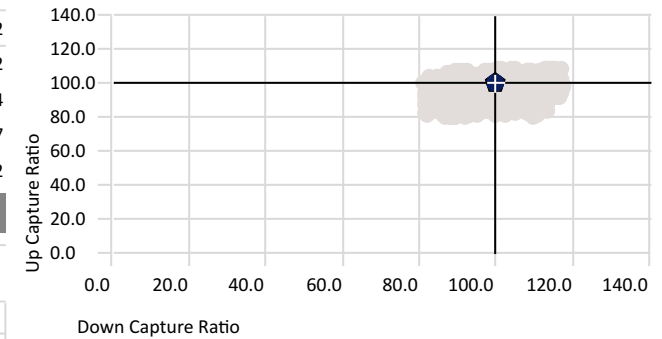
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: CRSP US Large Cap Growth TR USD



Up/Down Market Capture Ratio

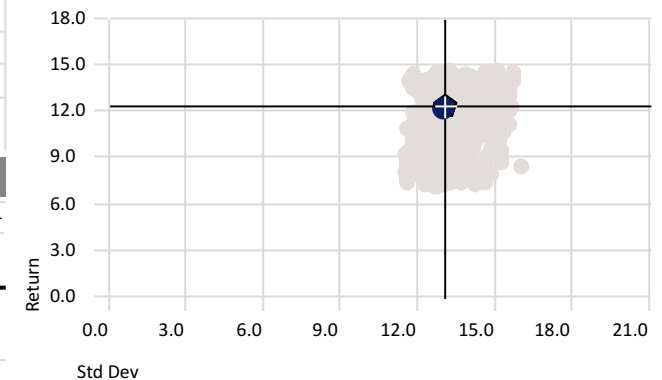
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: CRSP US Large Cap Growth TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



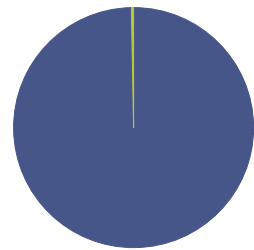
Vanguard Mid-Cap Value Index Admiral

VMVAX



Asset Allocation

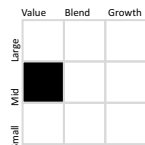
Portfolio Date: 8/31/2019



• Stock	99.7	%
• Bond	0.0	
• Cash	0.3	
• Other	0.0	
Total	100.0	

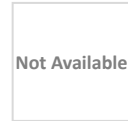
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	5.6	5.6
Consumer Cyclical %	19.2	19.2
Financial Services %	19.4	19.4
Real Estate %	6.9	6.9
Consumer Defensive %	4.9	4.9
Healthcare %	6.6	6.6
Utilities %	14.2	14.2
Communication Services %	2.1	2.0
Energy %	3.0	3.0
Industrials %	7.1	7.1
Technology %	11.0	11.0

Credit Quality

	Avg Eff Duration
Avg Eff Maturity	
Avg Cred Qual	
Cred Qual AAA%	
Cred Qual AA%	
Cred Qual A%	
Credit Qual BBB %	
Credit Qual BB %	
Credit Qual B %	
Credit Qual Below B %	

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
Newmont Goldcorp Corp	■	303	-3.25	1.61%
WEC Energy Group Inc	■	280	9.17	1.49%
Motorola Solutions Inc	■	276	-2.54	1.47%
Ball Corp	■	249	4.39	1.33%
Eversource Energy	■	238	10.00	1.27%
Willis Towers Watson PLC	■	237	-4.14	1.26%
FirstEnergy Corp	■	226	10.09	1.21%
DTE Energy Co	■	220	-1.03	1.17%
American Water Works Co Inc	■	213	4.80	1.13%
Entergy Corp	■	198	13.14	1.06%
Turnover Ratio %				17.00
% Asset in Top 10 Holdings				13.01

Key Information

Ticker	VMVAX
Morningstar Category	US Fund Mid-Cap Value
Firm Name	Vanguard
Advisor	Vanguard Group Inc
Manager Name	Multiple
Inception Date	9/27/2011
Fund Size (Mil)	19,610.09
Prospectus Net Expense Ratio	0.07
Firm Name	Vanguard
Web Address	www.vanguard.com

Key Information

Morningstar Rating Overall	★★★★
Morningstar Rating 3 Yr	★★★★
Morningstar Return % Rank Cat 3 Yr	20
Morningstar Rating 5 Yr	★★★★
Morningstar Return % Rank Cat 5 Yr	16
Morningstar Rating 10 Yr	
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	

Key Statistics

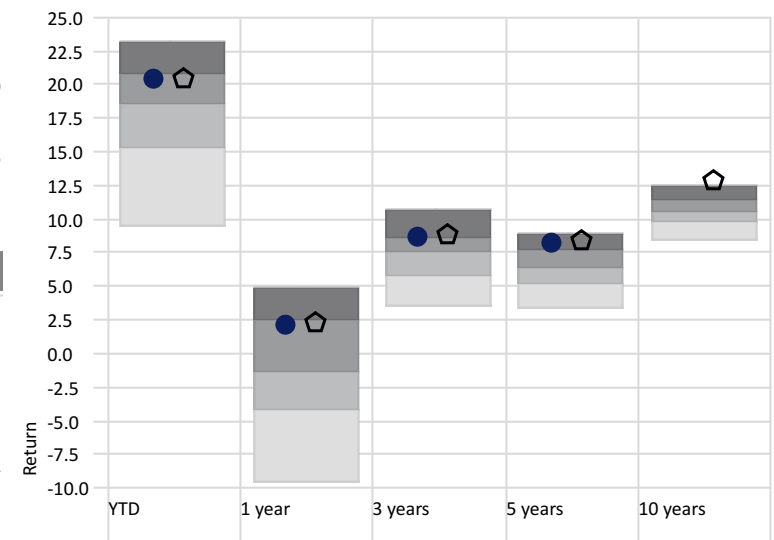
Arithmetic Mean 3 Yr (Mo-End)	0.79
Std Dev 3 Yr (Mo-End)	13.75
Alpha 3 Yr (Mo-End)	-4.78
Sharpe Ratio 3 Yr (Mo-End)	0.57
Arithmetic Mean 5 Yr (Mo-End)	0.74
Std Dev 5 Yr (Mo-End)	12.88
Alpha 5 Yr (Mo-End)	-2.39
Sharpe Ratio 5 Yr (Mo-End)	0.61

Investment Strategy

The investment seeks to track the performance of the CRSP US Mid Cap Value Index that measures the investment return of mid-capitalization value stocks. The fund employs an indexing investment approach designed to track the performance of the CRSP US Mid Cap Value Index, a broadly diversified index of value stocks of mid-size U.S. companies. The advisor attempts to replicate the target index by investing all, or substantially all, of its assets in the stocks that make up the index, holding each stock in approximately the same proportion as its weighting in the index.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Mid Cap Value

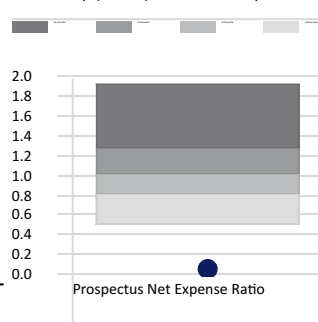


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Vanguard Mid-Cap Value Index Admiral	20.43	2.30	8.83	8.37	
CRSP US Mid Cap Value TR USD	20.49	2.34	8.87	8.41	12.97
Median	18.62	-1.35	7.57	6.43	10.57
5th Percentile	23.13	4.88	10.65	8.96	12.53
25th Percentile	20.83	2.46	8.62	7.78	11.38
50th Percentile	18.62	-1.35	7.57	6.43	10.57
75th Percentile	15.28	-4.24	5.77	5.17	9.78
95th Percentile	9.53	-9.53	3.57	3.39	8.51

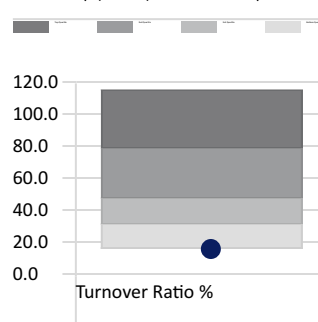
Expense vs Peer Group

Peer Group (5-95%): US OE Mid Cap Value



Turnover vs Peer Group

Peer Group (5-95%): US OE Mid Cap Value



Vanguard Mid-Cap Value Index Admiral

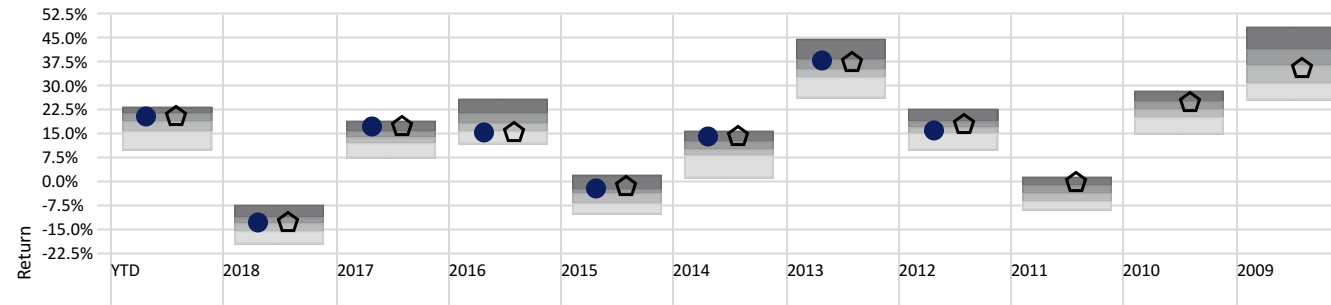
VMVAX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Mid Cap Value Calculation Benchmark: CRSP US Mid Cap Value TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



● Vanguard Mid-Cap Value Index Admiral

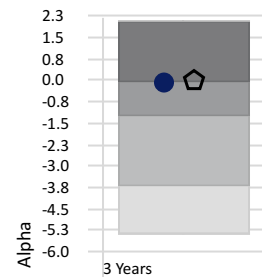
★ CRSP US Mid Cap Value TR USD

As of Date: 9/30/2019 Calculation Benchmark: CRSP US Mid Cap Value TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Vanguard Mid-Cap Value Index Admiral	20.43	-12.42	17.04	15.26	-1.80	13.98	37.66	16.02			
CRSP US Mid Cap Value TR USD	20.49	-12.42	17.12	15.28	-1.75	14.05	37.38	17.90	-0.39	24.58	35.21
Count	389	381	350	335	316	289	275	261	236	217	202
25th Percentile	20.83	-11.68	15.31	21.21	-2.48	12.32	37.64	18.50	-1.65	25.06	41.23
50th Percentile	18.62	-13.60	13.26	17.96	-4.15	9.64	34.88	16.44	-4.04	22.03	36.14
75th Percentile	15.28	-15.77	11.55	15.16	-6.87	7.64	32.13	14.84	-6.49	20.05	30.31

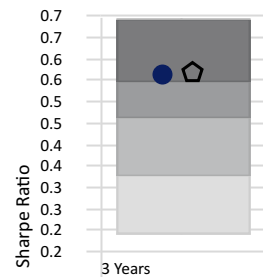
3 Yr Alpha

Peer Group (5-95%): US OE Mid Cap Value



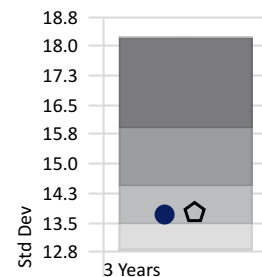
3 Yr Sharpe

Peer Group (5-95%): US OE Mid Cap Value



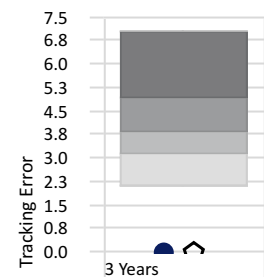
3 Yr Std Deviation

Peer Group (5-95%): US OE Mid Cap Value



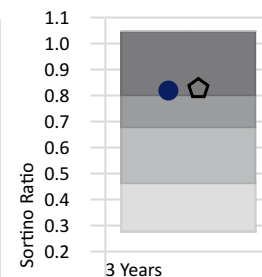
3 Yr Tracking Error

Peer Group (5-95%): US OE Mid Cap Value



3 Yr Sortino

Peer Group (5-95%): US OE Mid Cap Value



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Vanguard Mid-Cap Value Index Admiral	13.75	0.57	-0.03	1.00	0.83	-1.13	41.67	0.04
CRSP US Mid Cap Value TR USD	13.76	0.57			0.83			

US OE Mid-Cap Value

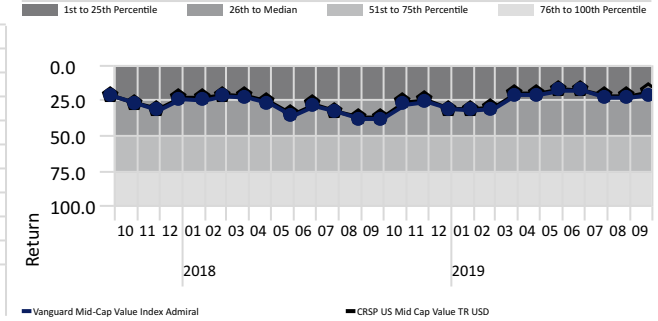
Vanguard Mid-Cap Value Index Admiral	13.75	0.57	-0.03	1.00	0.83	-1.13	41.67	0.04
CRSP US Mid Cap Value TR USD	13.76	0.57			0.83			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

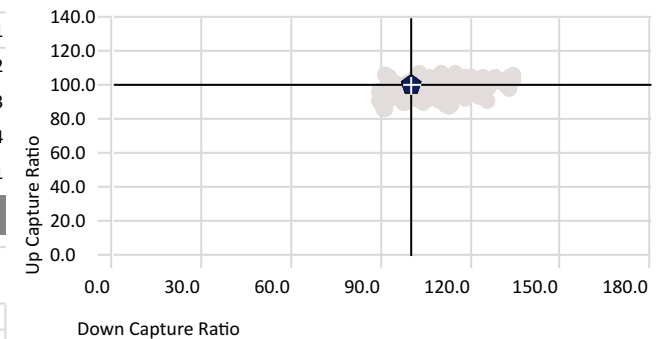
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: CRSP US Mid Cap Value TR USD



Up/Down Market Capture Ratio

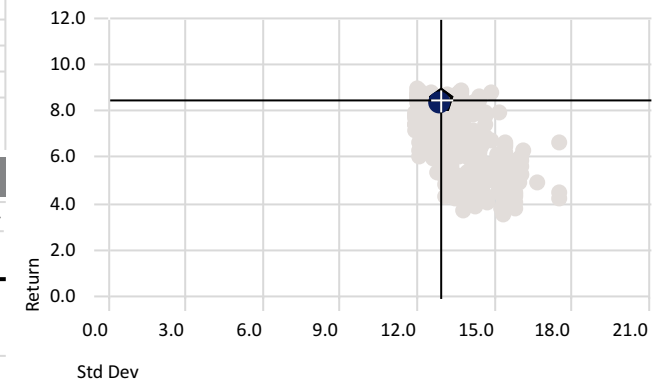
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: CRSP US Mid Cap Value TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



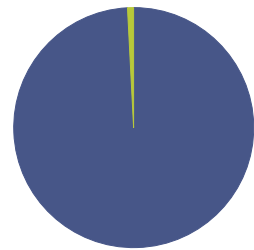
Vanguard Mid Cap Index Admiral

VIMAX



Asset Allocation

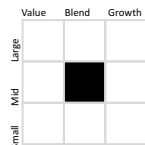
Portfolio Date: 9/30/2019



Stock	99.2	%
Bond	0.0	
Cash	0.8	
Other	0.0	
Total	100.0	

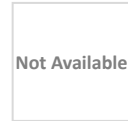
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	4.6	4.6
Consumer Cyclical %	14.8	14.8
Financial Services %	12.4	12.5
Real Estate %	9.8	9.7
Consumer Defensive %	4.3	4.4
Healthcare %	9.8	9.8
Utilities %	7.2	7.2
Communication Services %	1.4	1.4
Energy %	4.3	4.3
Industrials %	11.9	11.8
Technology %	19.6	19.6

Credit Quality

	Avg Eff Duration
	Avg Eff Maturity
	Avg Cred Qual
	Cred Qual AAA%
	Cred Qual AA%
	Cred Qual A%
	Credit Qual BBB %
	Credit Qual BB %
	Credit Qual B %
	Credit Qual Below B %

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
Cmt Market Liquidity Rate		861		0.83%
Newmont Goldcorp Corp		812	-3.25	0.78%
Twitter Inc		773	5.13	0.75%
Advanced Micro Devices Inc		760	-8.07	0.73%
Fiserv Inc		752	12.18	0.73%
WEC Energy Group Inc		750	9.17	0.72%
Motorola Solutions Inc		740	-2.54	0.71%
SBA Communications Corp		738	3.10	0.71%
ONEOK Inc		729	-1.78	0.70%
Ball Corp		668	4.39	0.64%
Turnover Ratio %			16.00	
% Asset in Top 10 Holdings			7.12	

Source: Morningstar Direct

Key Information

Ticker	VIMAX
Morningstar Category	US Fund Mid-Cap Blend
Firm Name	Vanguard
Advisor	Vanguard Group Inc
Manager Name	Multiple
Inception Date	11/12/2001
Fund Size (Mil)	105,404.44
Prospectus Net Expense Ratio	0.05
Firm Name	Vanguard
Web Address	www.vanguard.com

Key Information

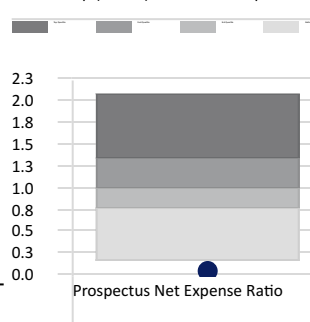
Morningstar Rating Overall	★★★★★
Morningstar Rating 3 Yr	★★★★
Morningstar Return % Rank Cat 3 Yr	20
Morningstar Rating 5 Yr	★★★★
Morningstar Return % Rank Cat 5 Yr	15
Morningstar Rating 10 Yr	★★★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	8

Key Statistics

Arithmetic Mean 3 Yr (Mo-End)	0.92
Std Dev 3 Yr (Mo-End)	13.30
Alpha 3 Yr (Mo-End)	-3.01
Sharpe Ratio 3 Yr (Mo-End)	0.71
Arithmetic Mean 5 Yr (Mo-End)	0.80
Std Dev 5 Yr (Mo-End)	12.77
Alpha 5 Yr (Mo-End)	-1.70
Sharpe Ratio 5 Yr (Mo-End)	0.68

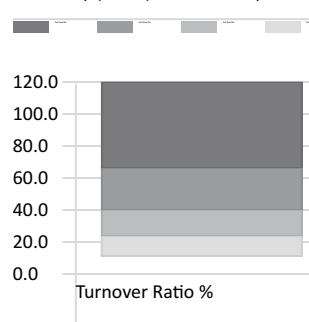
Expense vs Peer Group

Peer Group (5-95%): US OE Mid Cap Blend



Turnover vs Peer Group

Peer Group (5-95%): US OE Mid Cap Blend

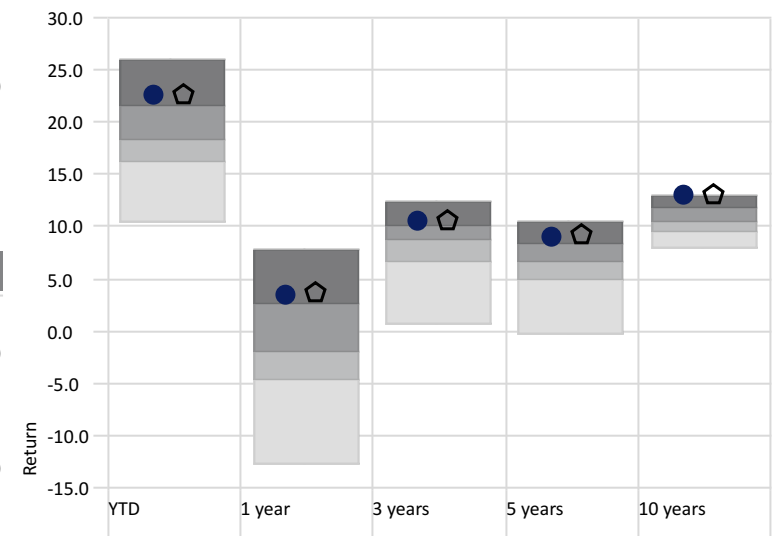


Investment Strategy

The investment seeks to track the performance of a benchmark index that measures the investment return of mid-capitalization stocks. The fund employs an indexing investment approach designed to track the performance of the CRSP US Mid Cap Index, a broadly diversified index of stocks of mid-size U.S. companies. The advisor attempts to replicate the target index by investing all, or substantially all, of its assets in the stocks that make up the index, holding each stock in approximately the same proportion as its weighting in the index.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Mid Cap Blend



As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Vanguard Mid Cap Index Admiral	22.60	3.65	10.67	9.20	13.05
CRSP US Mid Cap TR USD	22.66	3.70	10.70	9.24	13.14
Median	18.27	-1.93	8.77	6.56	10.52
5th Percentile	25.84	7.81	12.42	10.50	12.99
25th Percentile	21.49	2.59	10.12	8.29	11.79
50th Percentile	18.27	-1.93	8.77	6.56	10.52
75th Percentile	16.12	-4.63	6.71	4.96	9.55
95th Percentile	10.39	-12.73	0.81	-0.20	7.88

Vanguard Mid Cap Index Admiral

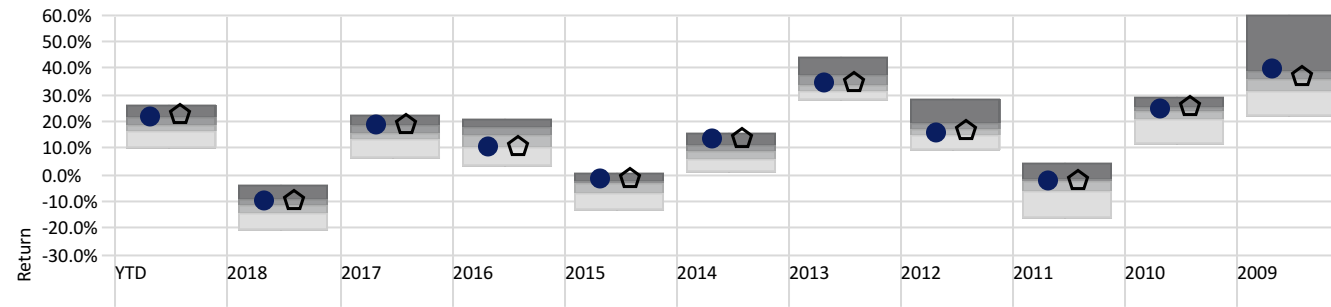
VIMAX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Mid Cap Blend Calculation Benchmark: CRSP US Mid Cap TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



● Vanguard Mid Cap Index Admiral

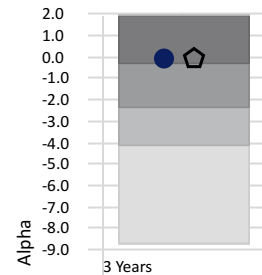
★ CRSP US Mid Cap TR USD

As of Date: 9/30/2019 Calculation Benchmark: CRSP US Mid Cap TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Vanguard Mid Cap Index Admiral	22.60	-9.23	19.25	11.22	-1.34	13.76	35.15	15.99	-1.97	25.59	40.48
CRSP US Mid Cap TR USD	22.66	-9.22	19.30	11.25	-1.28	13.83	35.27	16.69	-1.79	26.16	36.90
Count	391	381	354	314	289	277	258	237	219	213	198
25th Percentile	21.49	-9.21	18.22	18.01	-2.31	11.06	37.34	18.98	-1.39	25.61	38.61
50th Percentile	18.27	-11.42	15.88	14.61	-3.38	9.11	33.84	17.37	-2.82	23.75	35.91
75th Percentile	16.12	-14.52	13.27	10.14	-7.07	5.88	31.24	14.54	-5.95	20.95	31.18

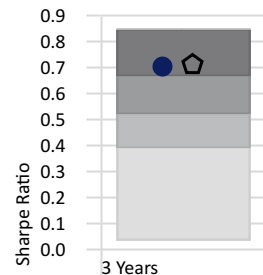
3 Yr Alpha

Peer Group (5-95%): US OE Mid Cap Blend



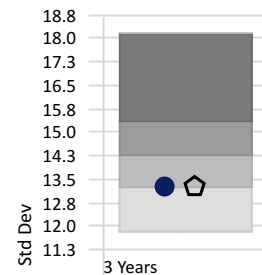
3 Yr Sharpe

Peer Group (5-95%): US OE Mid Cap Blend



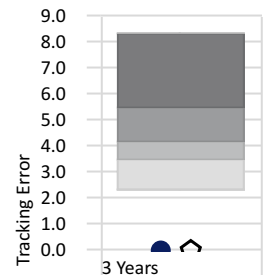
3 Yr Std Deviation

Peer Group (5-95%): US OE Mid Cap Blend



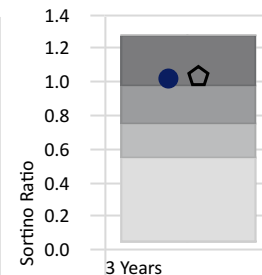
3 Yr Tracking Error

Peer Group (5-95%): US OE Mid Cap Blend



3 Yr Sortino

Peer Group (5-95%): US OE Mid Cap Blend



Performance Reporting

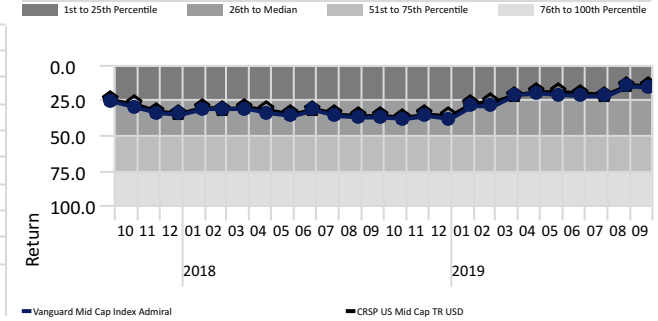
	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
US OE Mid-Cap Blend								
Vanguard Mid Cap Index Admiral	13.30	0.71	-0.03	1.00	1.03	-1.50	38.89	0.02
CRSP US Mid Cap TR USD	13.30	0.71			1.04			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

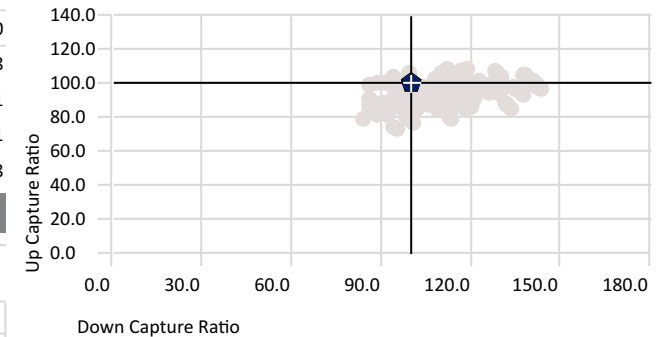
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: CRSP US Mid Cap TR USD



Up/Down Market Capture Ratio

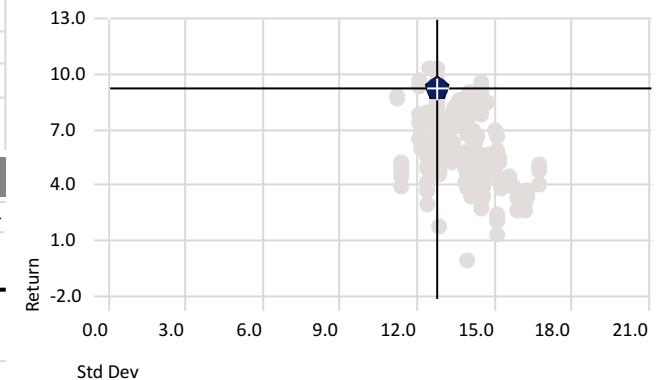
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: CRSP US Mid Cap TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



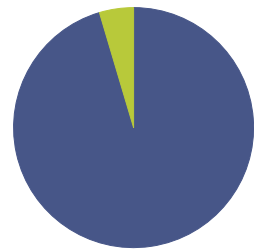
Janus Henderson Small Cap Value I

JSCOX



Asset Allocation

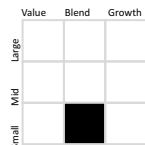
Portfolio Date: 6/30/2019



• Stock	95.4	%
• Bond	0.0	
• Cash	4.6	
• Other	0.0	
Total	100.0	

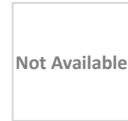
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	5.4	4.5
Consumer Cyclical %	15.8	9.0
Financial Services %	32.9	27.0
Real Estate %	9.1	14.8
Consumer Defensive %	7.1	3.5
Healthcare %	1.0	3.6
Utilities %	3.6	7.6
Communication Services %	0.0	1.0
Energy %	4.4	3.9
Industrials %	13.9	12.9
Technology %	6.7	12.1

Credit Quality

	Avg Eff Duration
	Avg Eff Maturity
	Avg Cred Qual
	Cred Qual AAA%
	Cred Qual AA%
	Cred Qual A%
	Cred Qual BBB %
	Cred Qual BB %
	Cred Qual B %
	Cred Qual Below B %

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
UniFirst Corp		126	3.28	3.92%
The Hanover Insurance Group Inc		93	3.33	2.88%
Cedar Fair LP		88	15.34	2.73%
Nomad Foods Ltd		84	-12.62	2.61%
Equity Commonwealth		76	5.05	2.37%
Argo Group International Holdings Ltd		75	-9.32	2.35%
Atlantic Union Bankshares Corp		71	2.92	2.21%
Black Hills Corp		71	-2.11	2.20%
Stag Industrial Inc		69	-0.43	2.14%
Cadence Bancorp Class A		68	-14.93	2.13%
Turnover Ratio %				39.00
% Asset in Top 10 Holdings				25.52

Key Information

Ticker	JSCOX
Morningstar Category	US Fund Small Value
Firm Name	Janus Henderson
Advisor	Janus Capital Management LLC
Manager Name	Multiple
Inception Date	7/6/2009
Fund Size (Mil)	3,398.35
Prospectus Net Expense Ratio	0.88
Firm Name	Janus Henderson
Web Address	janushenderson.com

Key Information

Morningstar Rating Overall	★★★★★
Morningstar Rating 3 Yr	★★★★★
Morningstar Return % Rank Cat 3 Yr	7
Morningstar Rating 5 Yr	★★★★★
Morningstar Return % Rank Cat 5 Yr	3
Morningstar Rating 10 Yr	★★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	11

Key Statistics

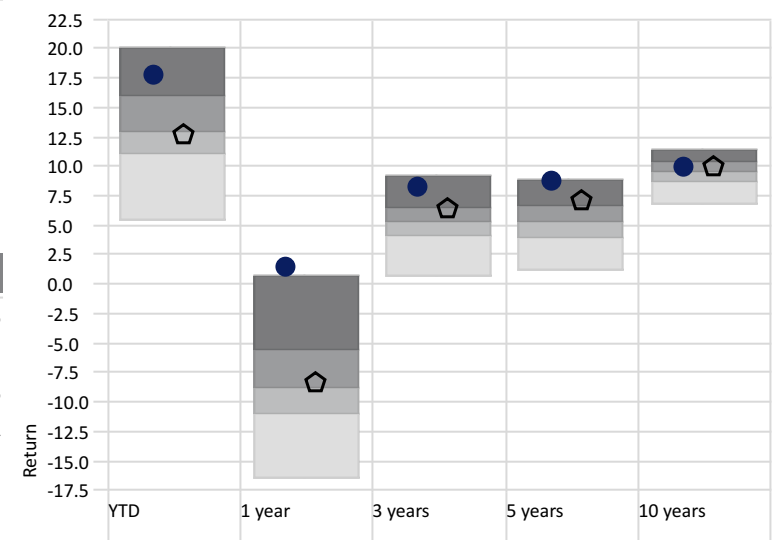
Arithmetic Mean 3 Yr (Mo-End)	0.76
Std Dev 3 Yr (Mo-End)	13.93
Alpha 3 Yr (Mo-End)	-4.06
Sharpe Ratio 3 Yr (Mo-End)	0.54
Arithmetic Mean 5 Yr (Mo-End)	0.78
Std Dev 5 Yr (Mo-End)	12.95
Alpha 5 Yr (Mo-End)	-1.00
Sharpe Ratio 5 Yr (Mo-End)	0.64

Investment Strategy

The investment seeks capital appreciation. The fund pursues its investment objective by investing primarily in the common stocks of small companies whose stock prices are believed to be undervalued by the fund's portfolio managers. It invests, under normal circumstances, at least 80% of its net assets (plus any borrowings for investment purposes) in equity securities of small companies whose market capitalization, at the time of initial purchase, is less than the 12-month average of the maximum market capitalization for companies included in the Russell 2000® Value Index. The fund may invest up to 20% of its net assets in cash or similar investments.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Small Value

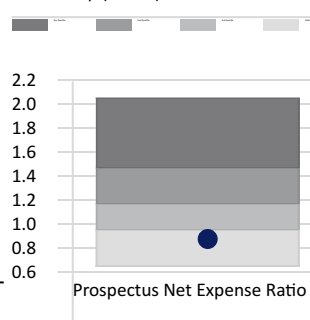


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Janus Henderson Small Cap Value I	17.88	1.49	8.44	8.83	10.11
Russell 2000 Value TR USD	12.82	-8.24	6.54	7.17	10.06
Median	12.92	-8.79	5.31	5.32	9.62
5th Percentile	20.07	0.76	9.18	8.95	11.45
25th Percentile	15.97	-5.54	6.40	6.66	10.39
50th Percentile	12.92	-8.79	5.31	5.32	9.62
75th Percentile	11.03	-11.05	4.07	4.01	8.68
95th Percentile	5.44	-16.36	0.64	1.25	6.80

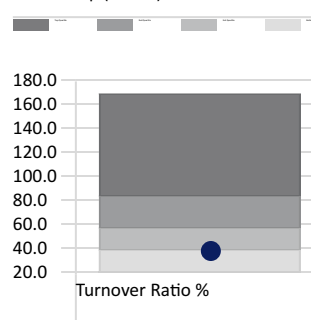
Expense vs Peer Group

Peer Group (5-95%): US OE Small Value



Turnover vs Peer Group

Peer Group (5-95%): US OE Small Value



Janus Henderson Small Cap Value I

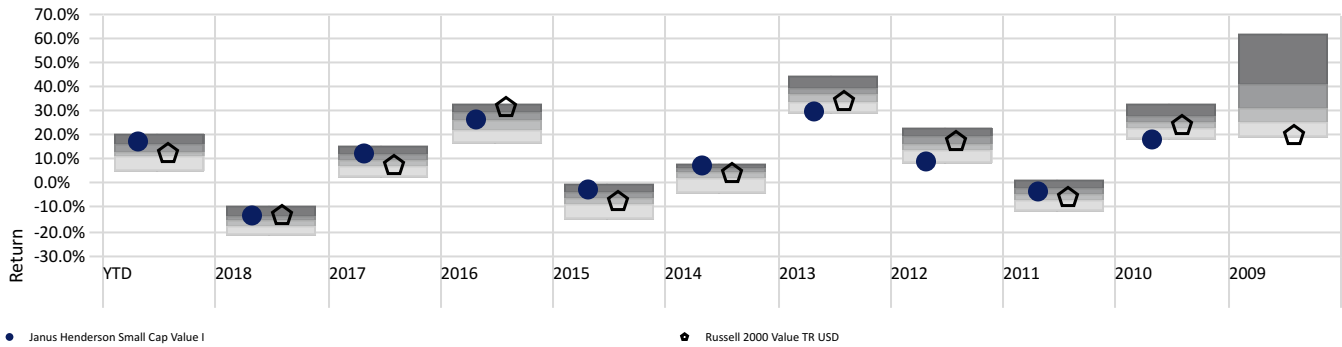
JSCOX



Performance Relative to Peer Group

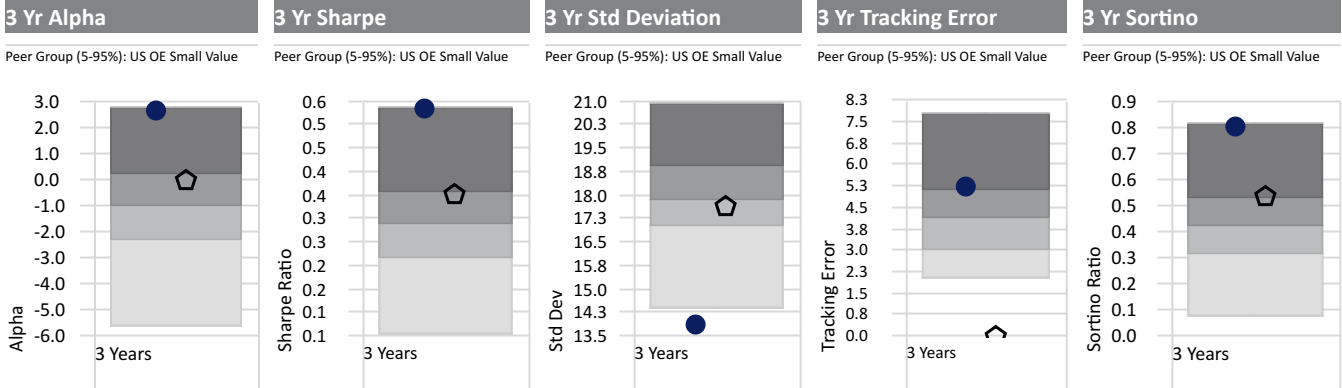
Peer Group (5-95%): US OE Small Value Calculation Benchmark: Russell 2000 Value TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



As of Date: 9/30/2019 Calculation Benchmark: Russell 2000 Value TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Janus Henderson Small Cap Value I	17.88	-13.04	12.81	26.45	-2.56	7.42	29.82	9.13	-3.28	18.13	
Russell 2000 Value TR USD	12.82	-12.86	7.84	31.74	-7.47	4.22	34.52	18.05	-5.50	24.50	20.58
Count	404	388	370	353	333	311	290	277	253	231	214
25th Percentile	15.97	-13.43	11.67	29.28	-3.73	5.84	39.38	18.97	-2.24	27.48	40.54
50th Percentile	12.92	-15.78	9.05	25.68	-6.28	4.21	36.40	15.91	-4.30	25.40	31.23
75th Percentile	11.03	-18.10	6.63	21.66	-8.38	2.11	33.12	13.37	-6.73	22.97	25.13



Performance Reporting

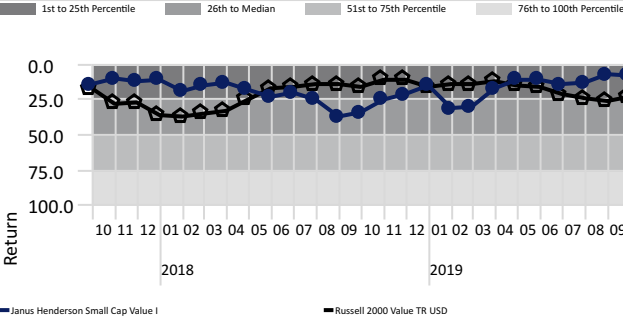
	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
US OE Small Value								
Janus Henderson Small Cap Value I	13.93	0.54	2.66	0.77	0.81	0.36	58.33	5.23
Russell 2000 Value TR USD	17.67	0.35			0.54			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

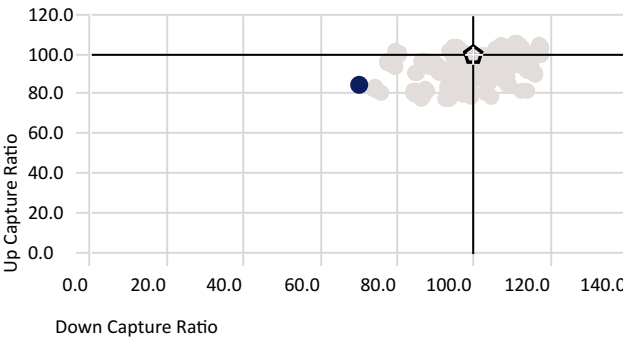
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: Russell 2000 Value TR USD



Up/Down Market Capture Ratio

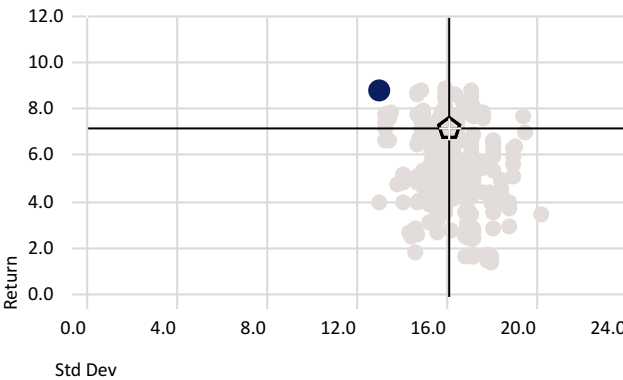
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: Russell 2000 Value TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



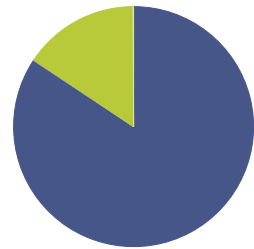
Federated Kaufmann Small Cap Instl

FKAIX



Asset Allocation

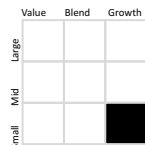
Portfolio Date: 6/30/2019



• Stock	84.3	%
• Bond	0.1	
• Cash	15.5	
• Other	0.1	
Total	100.0	

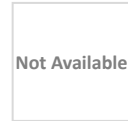
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	2.8	5.8
Consumer Cyclical %	11.8	15.1
Financial Services %	5.3	7.1
Real Estate %	7.9	3.2
Consumer Defensive %	2.5	3.8
Healthcare %	30.0	23.9
Utilities %	0.1	0.5
Communication Services %	0.2	1.3
Energy %	0.9	1.6
Industrials %	8.7	16.2
Technology %	29.7	21.4

Credit Quality

	Avg Eff Duration
	Avg Eff Maturity
	Avg Cred Qual
	Cred Qual AAA%
	Cred Qual AA%
	Cred Qual A%
	Credit Qual BBB %
	Credit Qual BB %
	Credit Qual B %
	Credit Qual Below B %

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
Federated Instl Prime Value Obligs Instl		491	0.55	15.53%
argenx SE ADR		48	-19.86	1.51%
argenx SE		43	-19.54	1.36%
Azul SA ADR		39	-4.91	1.23%
uniQure NV		38	-40.42	1.21%
Ryman Hospitality Properties Inc		37	7.48	1.18%
Planet Fitness Inc A		37	-21.63	1.16%
Veeva Systems Inc Class A		36	-12.49	1.13%
Hamilton Lane Inc Class A		36	-3.90	1.13%
Smartsheet Inc Class A		34	-24.03	1.07%
Turnover Ratio %				39.00
% Asset in Top 10 Holdings				12.02

Source: Morningstar Direct

Key Information

Ticker	FKAIX
Morningstar Category	US Fund Small Growth
Firm Name	Federated
Advisor	Federated Equity Mgmt Co. Of Penn
Manager Name	Multiple
Inception Date	12/30/2015
Fund Size (Mil)	3,509.83
Prospectus Net Expense Ratio	0.91
Firm Name	Federated
Web Address	www.federatedinvestors.com

Key Information

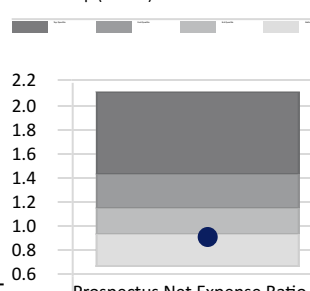
Morningstar Rating Overall	★★★★★
Morningstar Rating 3 Yr	★★★★★
Morningstar Return % Rank Cat 3 Yr	0
Morningstar Rating 5 Yr	
Morningstar Return % Rank Cat 5 Yr	
Morningstar Rating 10 Yr	
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	

Key Statistics

Arithmetic Mean 3 Yr (Mo-End)	1.72
Std Dev 3 Yr (Mo-End)	16.27
Alpha 3 Yr (Mo-End)	6.35
Sharpe Ratio 3 Yr (Mo-End)	1.17
Arithmetic Mean 5 Yr (Mo-End)	
Std Dev 5 Yr (Mo-End)	
Alpha 5 Yr (Mo-End)	
Sharpe Ratio 5 Yr (Mo-End)	

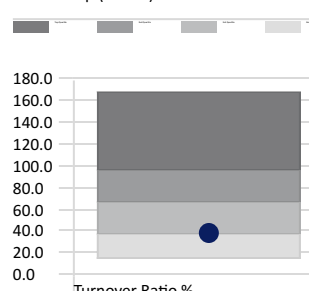
Expense vs Peer Group

Peer Group (5-95%): US OE Small Growth



Turnover vs Peer Group

Peer Group (5-95%): US OE Small Growth

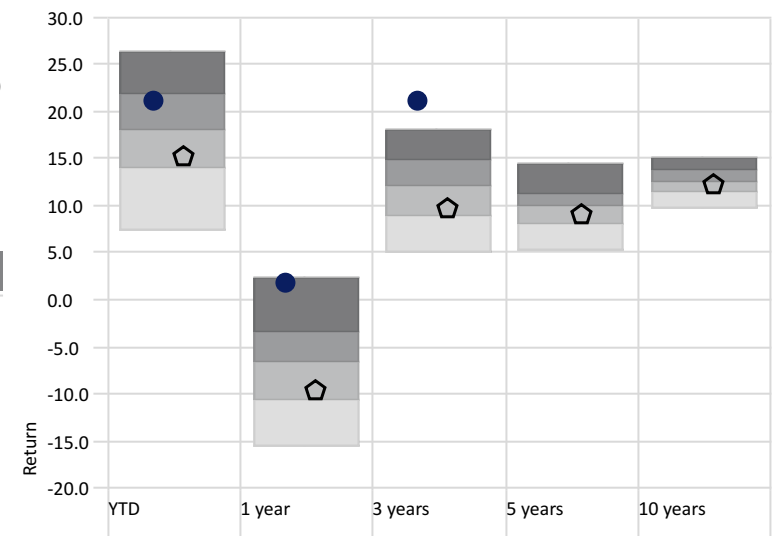


Investment Strategy

The investment seeks to provide capital appreciation. The fund invests primarily in the common stocks of small companies that are traded on national security exchanges, the NASDAQ stock market and on the over-the-counter market. It will normally invest at least 80% of its net assets (which include the amount of any borrowing for investment purposes) in small companies and will notify shareholders at least 60 days in advance of any change in its investment policies that would permit the fund to normally invest less than 80% of its net assets in investments in small companies.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Small Growth



As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Federated Kaufmann Small Cap Instl	21.18	1.91	21.16		
Russell 2000 Growth TR USD	15.34	-9.63	9.79	9.08	12.25
Median	18.09	-6.50	12.18	9.91	12.62
5th Percentile	26.29	2.28	17.99	14.54	14.98
25th Percentile	21.90	-3.38	14.86	11.36	13.75
50th Percentile	18.09	-6.50	12.18	9.91	12.62
75th Percentile	14.08	-10.61	9.02	8.13	11.44
95th Percentile	7.53	-15.49	5.04	5.21	9.86

Federated Kaufmann Small Cap Instl

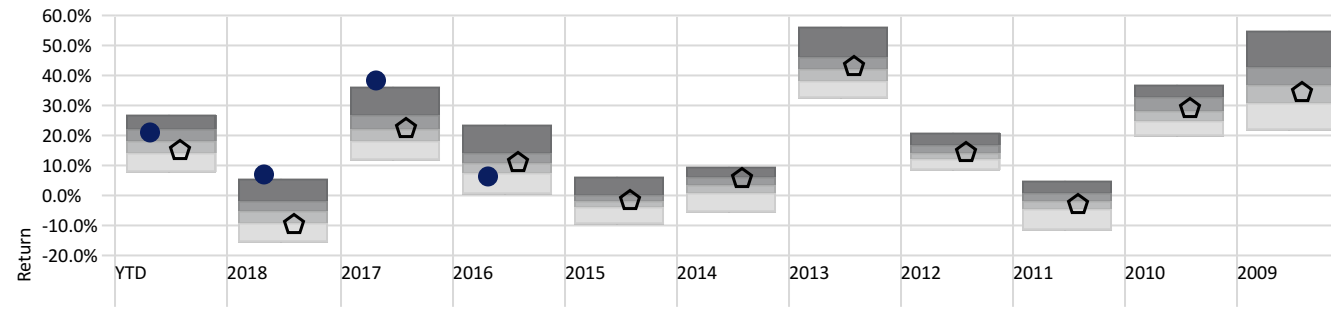
FKAIX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Small Growth Calculation Benchmark: Russell 2000 Growth TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



Federated Kaufmann Small Cap Instl

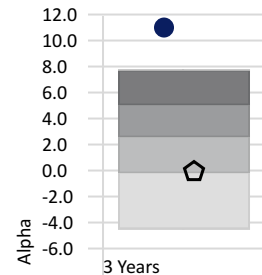
Russell 2000 Growth TR USD

As of Date: 9/30/2019 Calculation Benchmark: Russell 2000 Growth TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Federated Kaufmann Small Cap Instl	21.18	7.40	38.46	6.27							
Russell 2000 Growth TR USD	15.34	-9.31	22.17	11.32	-1.38	5.60	43.30	14.59	-2.91	29.09	34.47
Count	650	630	578	547	519	490	468	435	415	396	374
25th Percentile	21.90	-1.91	26.41	13.95	-0.09	5.85	45.54	16.24	0.56	32.45	42.25
50th Percentile	18.09	-5.34	22.10	10.14	-2.19	3.21	41.80	14.09	-2.00	27.73	36.22
75th Percentile	14.08	-9.23	17.96	7.17	-4.35	0.49	37.79	11.86	-5.17	24.56	30.72

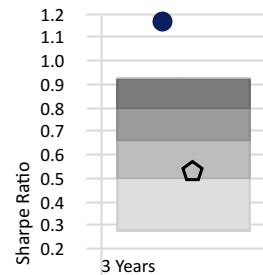
3 Yr Alpha

Peer Group (5-95%): US OE Small Growth



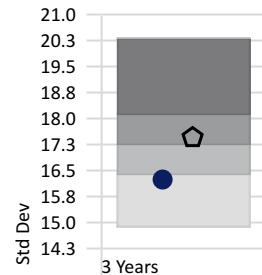
3 Yr Sharpe

Peer Group (5-95%): US OE Small Growth



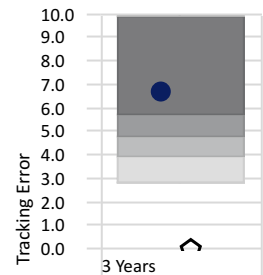
3 Yr Std Deviation

Peer Group (5-95%): US OE Small Growth



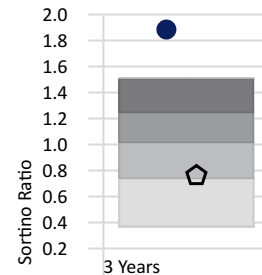
3 Yr Tracking Error

Peer Group (5-95%): US OE Small Growth



3 Yr Sortino

Peer Group (5-95%): US OE Small Growth



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years

US OE Small Growth

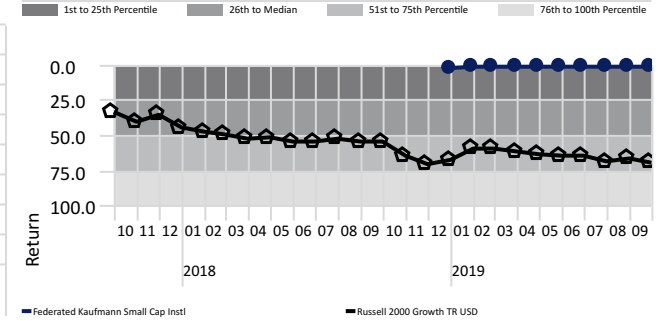
Federated Kaufmann Small Cap Instl	16.27	1.17	11.07	0.86	1.90	1.68	69.44	6.77
Russell 2000 Growth TR USD	17.47	0.53			0.76			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

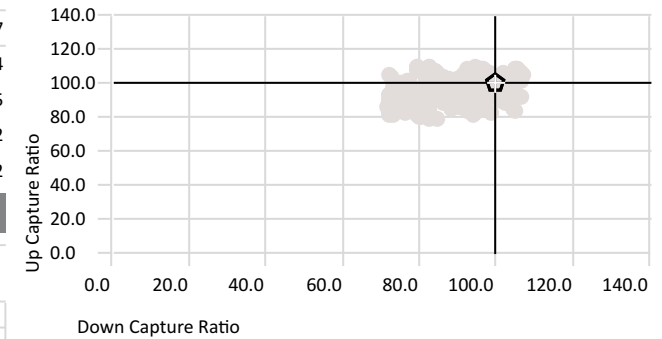
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: Russell 2000 Growth TR USD



Up/Down Market Capture Ratio

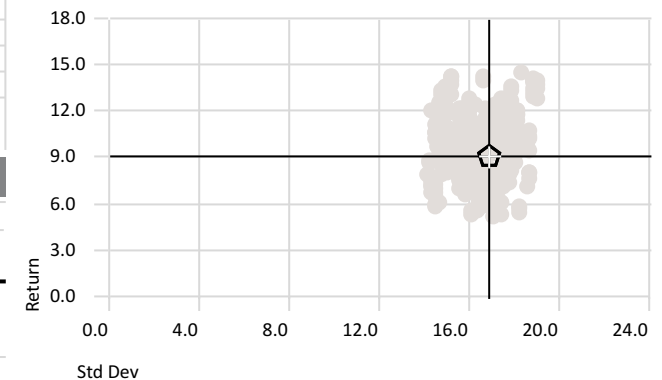
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: Russell 2000 Growth TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



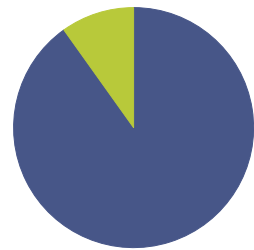
Morgan Stanley Inst Intl Advtg I

MFAIX



Asset Allocation

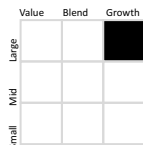
Portfolio Date: 6/30/2019



• Stock	90.1
• Bond	0.0
• Cash	9.9
• Other	0.0
Total	100.0

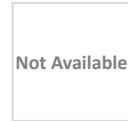
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	3.1	2.9
Consumer Cyclical %	18.7	15.7
Financial Services %	13.4	11.7
Real Estate %	0.0	1.1
Consumer Defensive %	25.9	9.8
Healthcare %	2.8	13.1
Utilities %	3.1	0.5
Communication Services %	0.0	1.9
Energy %	0.0	1.8
Industrials %	10.4	11.9
Technology %	22.4	29.5

Credit Quality

	Avg Eff Duration
	Avg Eff Maturity
	Avg Cred Qual
	Cred Qual AAA%
	Cred Qual AA%
	Cred Qual A%
	Cred Qual BBB %
	Cred Qual BB %
	Cred Qual B %
	Cred Qual Below B %

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
Morgan Stanley InstLqdy TrsSecsInstl		156	0.50	9.70%
DSV A/S		105	-1.71	6.56%
Moncler SpA		98	-12.92	6.07%
Hermes International SA		87	-3.72	5.41%
EPAM Systems Inc		79	-2.80	4.92%
Keyence Corp		79	2.36	4.91%
HDFC Bank Ltd		64	-1.92	3.97%
Rightmove PLC		58	5.20	3.61%
Booking Holdings Inc		56	5.65	3.46%
Pigeon Corp		54	19.08	3.35%
Turnover Ratio %				29.00
% Asset in Top 10 Holdings				45.53

Key Information

Ticker	MFAIX
Morningstar Category	US Fund Foreign Large Growth
Firm Name	Morgan Stanley
Advisor	Morgan Stanley Investment Management, Inc.
Manager Name	Multiple
Inception Date	12/28/2010
Fund Size (Mil)	1,921.82
Prospectus Net Expense Ratio	1.00
Firm Name	Morgan Stanley
Web Address	www.morganstanley.com

Key Information

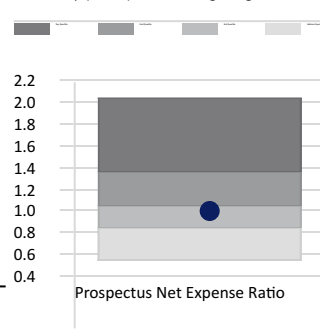
Morningstar Rating Overall	★★★★★
Morningstar Rating 3 Yr	★★★★★
Morningstar Return % Rank Cat 3 Yr	0
Morningstar Rating 5 Yr	★★★★★
Morningstar Return % Rank Cat 5 Yr	0
Morningstar Rating 10 Yr	
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	

Key Statistics

Arithmetic Mean 3 Yr (Mo-End)	1.33
Std Dev 3 Yr (Mo-End)	11.99
Alpha 3 Yr (Mo-End)	9.90
Sharpe Ratio 3 Yr (Mo-End)	1.20
Arithmetic Mean 5 Yr (Mo-End)	1.12
Std Dev 5 Yr (Mo-End)	11.87
Alpha 5 Yr (Mo-End)	10.24
Sharpe Ratio 5 Yr (Mo-End)	1.04

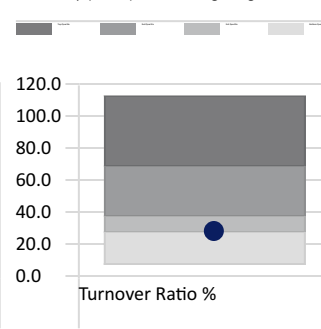
Expense vs Peer Group

Peer Group (5-95%): US OE Foreign Large Growth



Turnover vs Peer Group

Peer Group (5-95%): US OE Foreign Large Growth

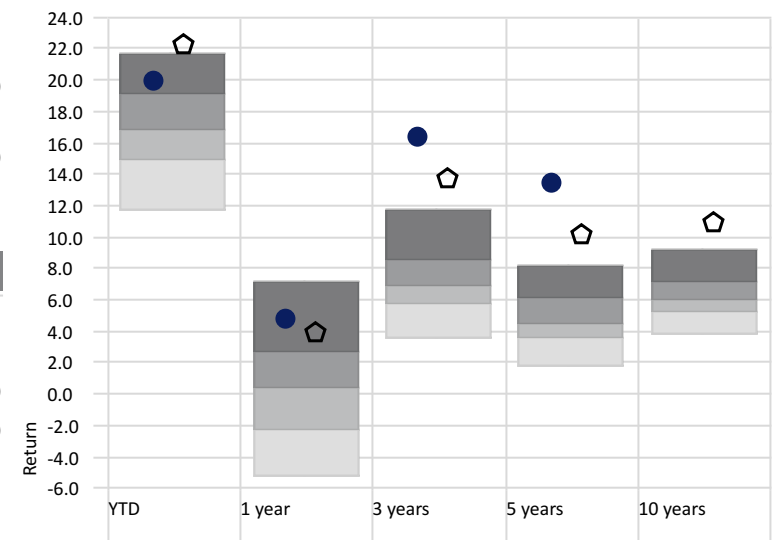


Investment Strategy

The investment seeks long-term capital appreciation. The fund invests primarily in established companies on an international basis, with capitalizations within the range of companies included in the MSCI All Country World ex USA Index. It typically invests at least 80% of its assets in the securities of issuers located outside of the United States. The fund may invest in foreign securities, which may include emerging market securities. It may invest in equity securities. The fund may also invest in privately placed and restricted securities.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Foreign Large Growth



As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Morgan Stanley Inst Intl Advtg I	20.08	4.90	16.41	13.47	
MSCI World Large Growth NR USD	22.29	4.02	13.72	10.20	10.96
Median	16.83	0.36	6.86	4.49	6.07
5th Percentile	21.72	7.10	11.68	8.23	9.19
25th Percentile	19.17	2.67	8.56	6.18	7.12
50th Percentile	16.83	0.36	6.86	4.49	6.07
75th Percentile	14.92	-2.33	5.76	3.57	5.22
95th Percentile	11.72	-5.25	3.62	1.81	3.78

Morgan Stanley Inst Intl Advtg I

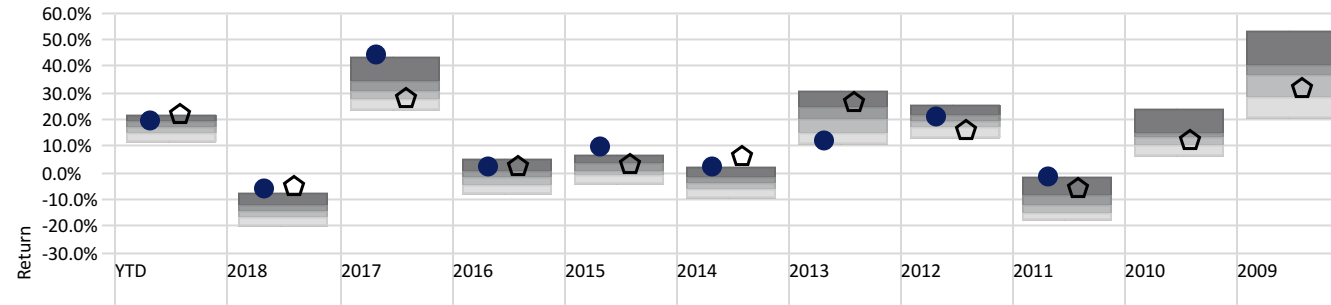
MFAIX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Foreign Large Growth Calculation Benchmark: MSCI World Large Growth NR USD

■ Top Quartile ■ 2nd Quartile ■ 3rd Quartile ■ Bottom Quartile



● Morgan Stanley Inst Intl Advtg I

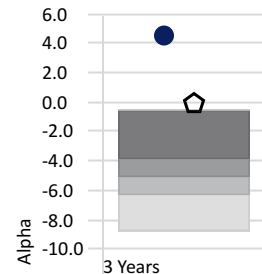
★ MSCI World Large Growth NR USD

As of Date: 9/30/2019 Calculation Benchmark: MSCI World Large Growth NR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Morgan Stanley Inst Intl Advtg I	20.08	-5.19	44.75	2.47	10.23	2.58	12.72	21.27	-1.31		
MSCI World Large Growth NR USD	22.29	-5.02	28.64	2.76	3.47	6.54	26.55	16.33	-5.12	12.62	32.18
Count	460	434	397	364	334	319	297	272	262	248	235
25th Percentile	19.17	-12.15	34.41	0.82	3.40	-1.63	24.79	21.18	-8.81	14.92	40.27
50th Percentile	16.83	-14.84	30.78	-1.70	0.77	-3.70	20.35	19.24	-12.57	12.95	36.74
75th Percentile	14.92	-16.74	27.34	-5.06	-0.94	-5.99	14.80	17.02	-14.89	10.03	28.14

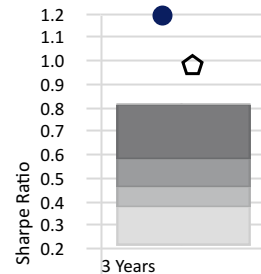
3 Yr Alpha

Peer Group (5-95%): US OE Foreign Large Growth



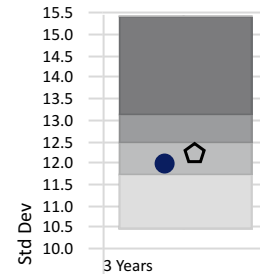
3 Yr Sharpe

Peer Group (5-95%): US OE Foreign Large Growth



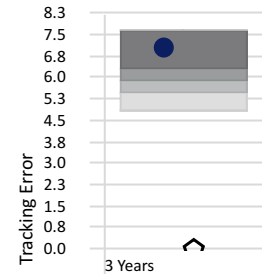
3 Yr Std Deviation

Peer Group (5-95%): US OE Foreign Large Growth



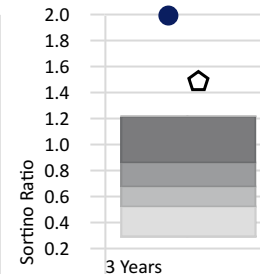
3 Yr Tracking Error

Peer Group (5-95%): US OE Foreign Large Growth



3 Yr Sortino

Peer Group (5-95%): US OE Foreign Large Growth



Performance Reporting

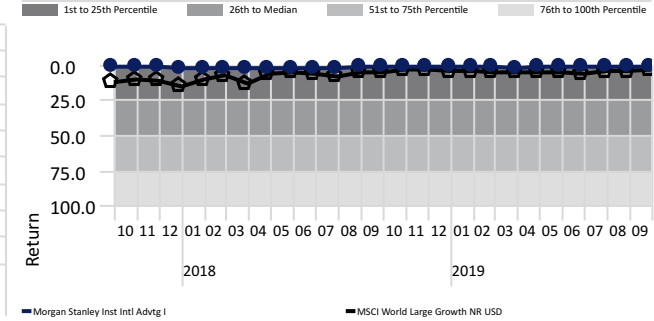
	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Morgan Stanley Inst Intl Advtg I	11.99	1.20	4.55	0.82	1.99	0.38	52.78	7.04
MSCI World Large Growth NR USD	12.25	0.98			1.48			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

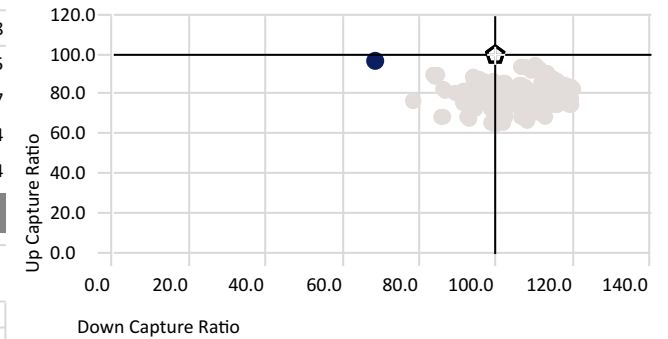
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: MSCI World Large Growth NR USD



Up/Down Market Capture Ratio

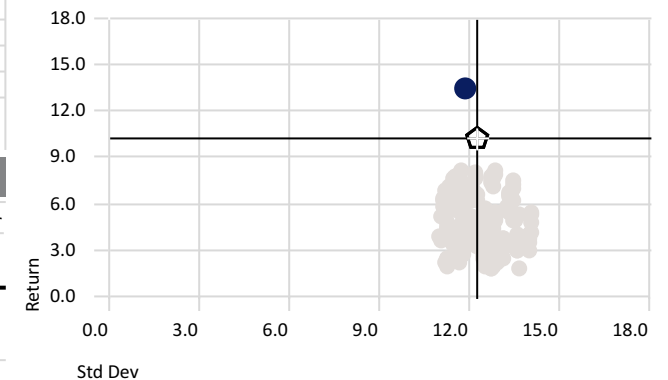
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: MSCI World Large Growth NR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



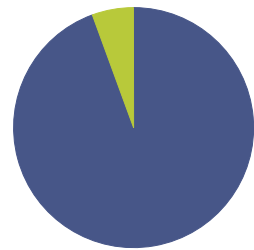
American Funds New Perspective R6

RNPGX



Asset Allocation

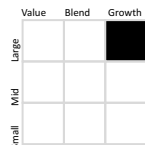
Portfolio Date: 6/30/2019



• Stock	94.4	%
• Bond	0.0	
• Cash	5.6	
• Other	0.0	
Total	100.0	

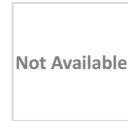
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	5.9	4.9
Consumer Cyclical %	15.9	11.8
Financial Services %	15.8	18.3
Real Estate %	0.6	3.2
Consumer Defensive %	7.8	8.6
Healthcare %	13.0	11.4
Utilities %	1.2	3.2
Communication Services %	2.0	3.8
Energy %	3.9	5.9
Industrials %	9.4	10.6
Technology %	24.6	18.3

Credit Quality

	Avg Eff Duration
	Avg Eff Maturity
	Avg Cred Qual
	Cred Qual AAA%
	Cred Qual AA%
	Cred Qual A%
	Credit Qual BBB %
	Credit Qual BB %
	Credit Qual B %
	Credit Qual Below B %

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
Capital Group Central Cash Fund		4,990		5.56%
Amazon.com Inc		3,331	-13.65	3.71%
Facebook Inc A		2,624	-10.54	2.92%
Microsoft Corp		2,179	0.80	2.43%
Mastercard Inc A		1,773	-1.01	1.98%
Taiwan Semiconductor Manufacturing Co Ltd		1,640	17.44	1.83%
Broadcom Inc		1,486	-0.38	1.66%
JPMorgan Chase & Co		1,379	1.78	1.54%
Visa Inc Class A		1,375	-1.51	1.53%
AIA Group Ltd		1,314	-13.86	1.46%
Turnover Ratio %				23.00
% Asset in Top 10 Holdings				20.45

Source: Morningstar Direct

Key Information

Ticker	RNPGX
Morningstar Category	US Fund World Large Stock
Firm Name	American Funds
Advisor	Capital Research and Management Company
Manager Name	Multiple
Inception Date	5/1/2009
Fund Size (Mil)	89,257.35
Prospectus Net Expense Ratio	0.45
Firm Name	American Funds
Web Address	www.americanfunds.com

Key Information

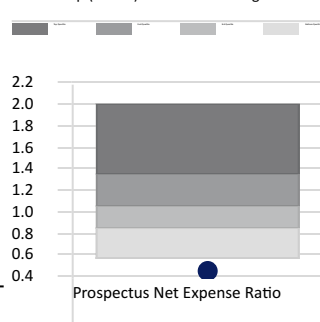
Morningstar Rating Overall	★★★★★
Morningstar Rating 3 Yr	★★★★
Morningstar Return % Rank Cat 3 Yr	13
Morningstar Rating 5 Yr	★★★★
Morningstar Return % Rank Cat 5 Yr	10
Morningstar Rating 10 Yr	★★★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	9

Key Statistics

Arithmetic Mean 3 Yr (Mo-End)	1.04
Std Dev 3 Yr (Mo-End)	11.98
Alpha 3 Yr (Mo-End)	5.82
Sharpe Ratio 3 Yr (Mo-End)	0.90
Arithmetic Mean 5 Yr (Mo-End)	0.83
Std Dev 5 Yr (Mo-End)	11.92
Alpha 5 Yr (Mo-End)	6.68
Sharpe Ratio 5 Yr (Mo-End)	0.75

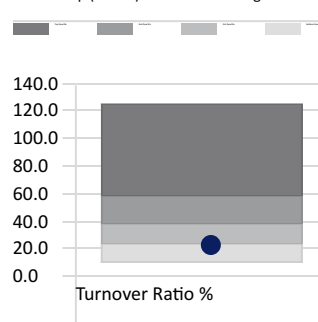
Expense vs Peer Group

Peer Group (5-95%): US OE World Large Stock



Turnover vs Peer Group

Peer Group (5-95%): US OE World Large Stock

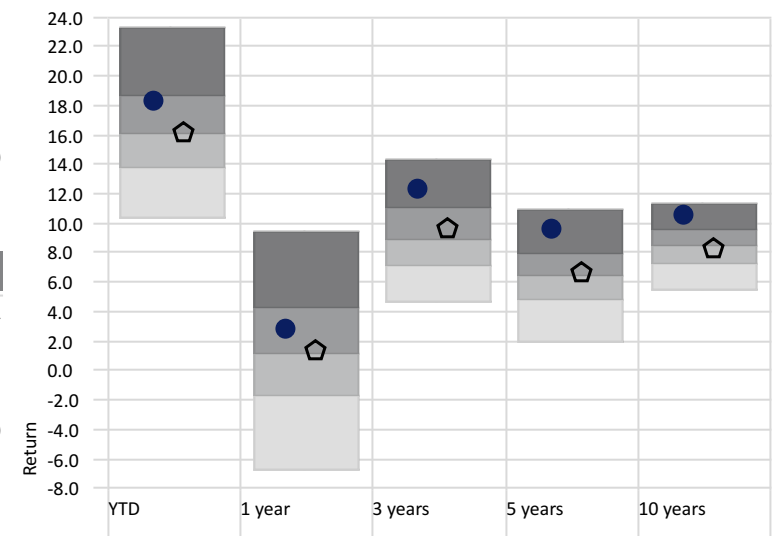


Investment Strategy

The investment seeks long-term growth of capital; future income is a secondary objective. The fund seeks to take advantage of investment opportunities generated by changes in international trade patterns and economic and political relationships by investing in common stocks of companies located around the world. In pursuing its primary investment objective, it invests primarily in common stocks that the investment adviser believes have the potential for growth. In pursuing its secondary objective, the fund invests in common stocks of companies with the potential to pay dividends in the future.

Performance Relative to Peer Group

Peer Group (5-95%): US OE World Large Stock



As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
American Funds New Perspective R6	18.45	2.88	12.38	9.72	10.67
MSCI ACWI NR USD	16.20	1.38	9.71	6.65	8.35
Median	16.10	1.14	8.84	6.39	8.49
5th Percentile	23.29	9.39	14.29	10.93	11.31
25th Percentile	18.73	4.27	11.09	7.90	9.60
50th Percentile	16.10	1.14	8.84	6.39	8.49
75th Percentile	13.81	-1.75	7.10	4.85	7.18
95th Percentile	10.42	-6.75	4.62	1.95	5.47

American Funds New Perspective R6

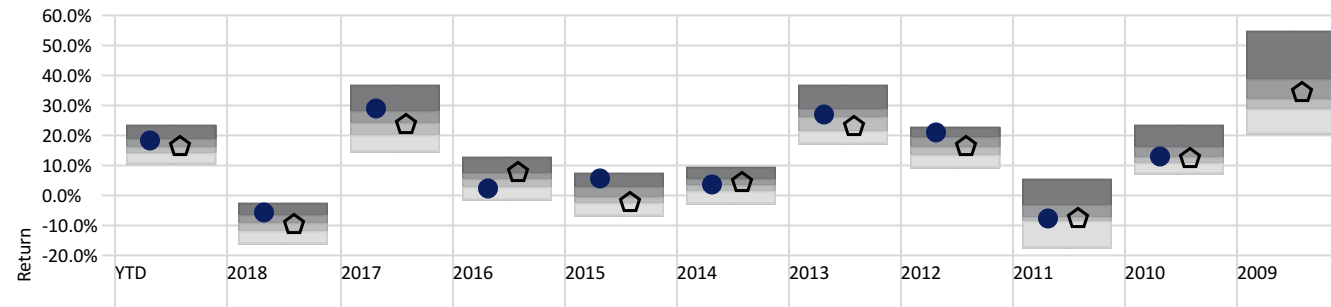
RNPGX



Performance Relative to Peer Group

Peer Group (5-95%): US OE World Large Stock Calculation Benchmark: MSCI ACWI NR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



American Funds New Perspective R6

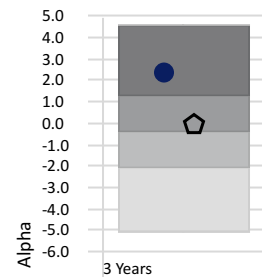
MSCI ACWI NR USD

As of Date: 9/30/2019 Calculation Benchmark: MSCI ACWI NR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
American Funds New Perspective R6	18.45	-5.56	29.30	2.19	5.63	3.56	27.23	21.19	-7.33	13.11	
MSCI ACWI NR USD	16.20	-9.41	23.97	7.86	-2.36	4.16	22.80	16.13	-7.35	12.67	34.63
Count	858	800	715	662	611	564	503	430	398	376	335
25th Percentile	18.73	-6.61	27.87	7.28	2.13	5.07	28.77	19.21	-3.66	15.52	38.67
50th Percentile	16.10	-9.66	24.04	5.42	-1.09	3.35	25.53	16.05	-7.26	12.72	31.88
75th Percentile	13.81	-12.05	20.07	2.73	-2.82	1.16	21.37	13.33	-9.03	10.60	28.16

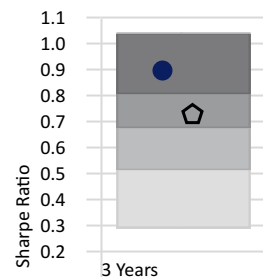
3 Yr Alpha

Peer Group (5-95%): US OE World Large Stock



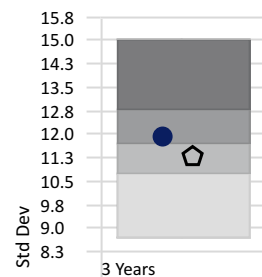
3 Yr Sharpe

Peer Group (5-95%): US OE World Large Stock



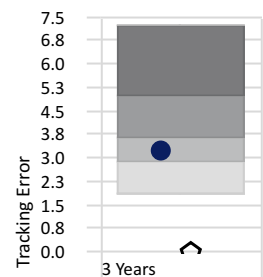
3 Yr Std Deviation

Peer Group (5-95%): US OE World Large Stock



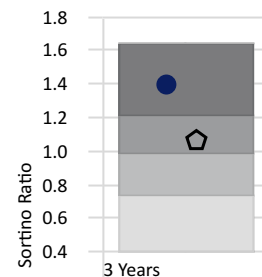
3 Yr Tracking Error

Peer Group (5-95%): US OE World Large Stock



3 Yr Sortino

Peer Group (5-95%): US OE World Large Stock



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years

US OE World Large Stock

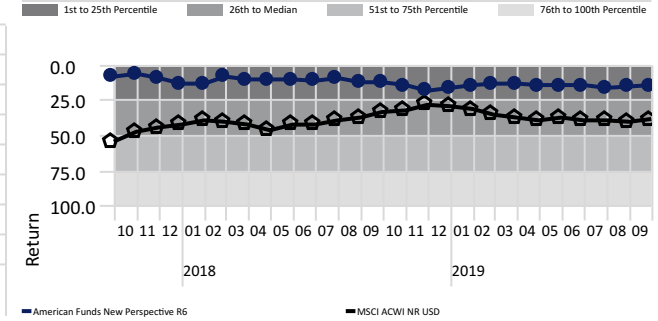
American Funds New Perspective R6	11.98	0.90	2.36	1.02	1.40	0.82	61.11	3.27
MSCI ACWI NR USD	11.32	0.73			1.07			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

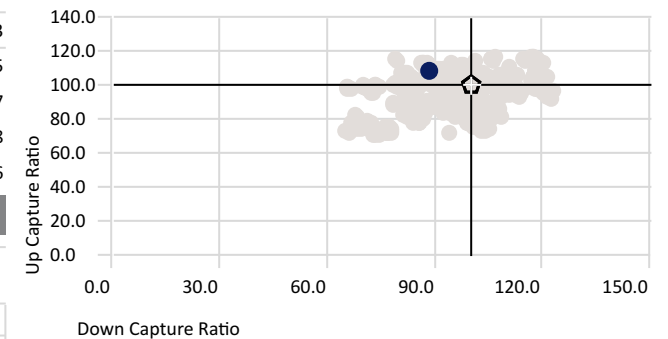
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: MSCI ACWI NR USD



Up/Down Market Capture Ratio

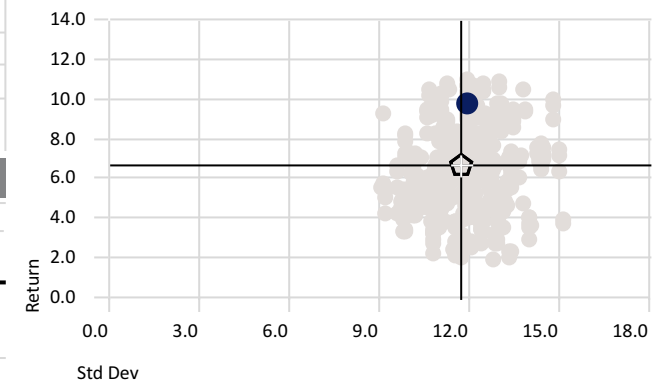
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: MSCI ACWI NR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



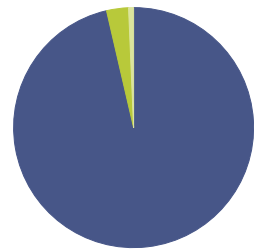
Vanguard Emerging Mkts Stock Idx Instl

VEMIX



Asset Allocation

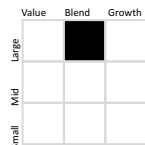
Portfolio Date: 8/31/2019



• Stock	96.4	%
• Bond	0.0	
• Cash	3.0	
• Other	0.7	
Total	100.0	

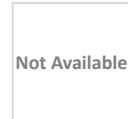
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	7.7	8.1
Consumer Cyclical %	11.6	11.7
Financial Services %	24.7	24.6
Real Estate %	4.2	4.2
Consumer Defensive %	7.1	7.0
Healthcare %	3.2	3.2
Utilities %	3.2	3.3
Communication Services %	4.6	4.7
Energy %	7.5	7.4
Industrials %	5.7	5.8
Technology %	20.4	20.2

Credit Quality

	Avg Eff Duration
	Avg Eff Maturity
	Avg Cred Qual
	Cred Qual AAA%
	Cred Qual AA%
	Cred Qual A%
	Credit Qual BBB %
	Credit Qual BB %
	Credit Qual B %
	Credit Qual Below B %

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
Tencent Holdings Ltd		3,645	-9.07	4.35%
Alibaba Group Holding Ltd ADR		3,164	1.24	3.78%
Cmt Market Liquidity Rate		2,395		2.86%
Taiwan Semiconductor Manufacturing Co Ltd		1,914	17.44	2.28%
Naspers Ltd Class N		1,500	-7.40	1.79%
Taiwan Semiconductor Manufacturing Co Ltd ADR		1,157	21.83	1.38%
China Construction Bank Corp Class H		1,063	-0.38	1.27%
Ping An Insurance (Group) Co. of China Ltd Class H		948	0.93	1.13%
Reliance Industries Ltd		842	2.92	1.00%
Housing Development Finance Corp Ltd		811	-14.10	0.97%
Turnover Ratio %				11.00
% Asset in Top 10 Holdings				18.87

Key Information

Ticker	VEMIX
Morningstar Category	US Fund Diversified Emerging Mkts
Firm Name	Vanguard
Advisor	Vanguard Group Inc
Manager Name	Multiple
Inception Date	6/22/2000
Fund Size (Mil)	83,541.08
Prospectus Net Expense Ratio	0.10
Firm Name	Vanguard
Web Address	www.vanguard.com

Key Information

Morningstar Rating Overall	★★★
Morningstar Rating 3 Yr	★★★
Morningstar Return % Rank Cat 3 Yr	49
Morningstar Rating 5 Yr	★★★
Morningstar Return % Rank Cat 5 Yr	46
Morningstar Rating 10 Yr	★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	54

Key Statistics

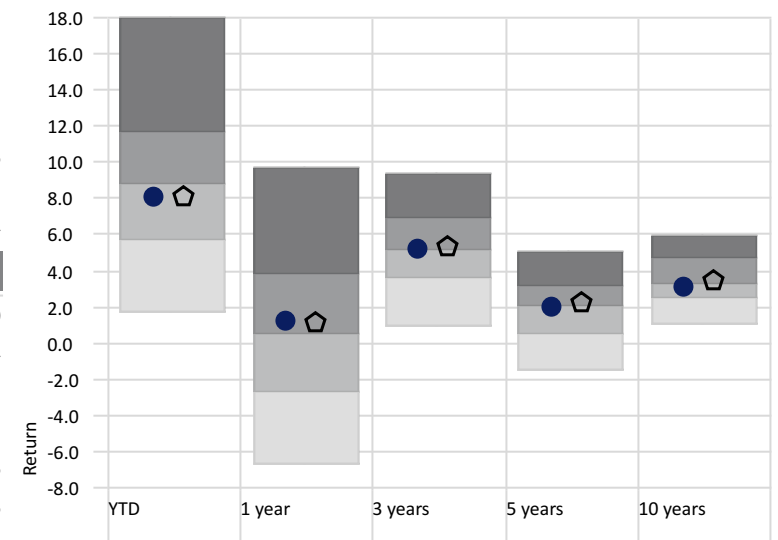
Arithmetic Mean 3 Yr (Mo-End)	0.50
Std Dev 3 Yr (Mo-End)	13.34
Alpha 3 Yr (Mo-End)	-0.98
Sharpe Ratio 3 Yr (Mo-End)	0.33
Arithmetic Mean 5 Yr (Mo-End)	0.26
Std Dev 5 Yr (Mo-End)	15.06
Alpha 5 Yr (Mo-End)	-0.64
Sharpe Ratio 5 Yr (Mo-End)	0.14

Investment Strategy

The investment seeks to track the performance of a benchmark index that measures the investment return of stocks issued by companies located in emerging market countries. The fund employs an indexing investment approach designed to track the performance of the FTSE Emerging Markets All Cap China A Inclusion Index. It invests by sampling the index, meaning that it holds a broadly diversified collection of securities that, in the aggregate, approximates the index in terms of key characteristics.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Diversified Emerging Markets

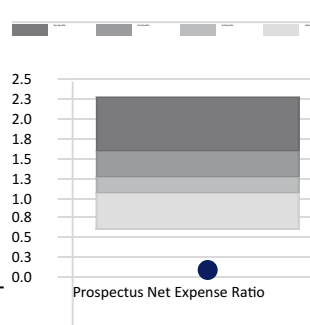


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Vanguard Emerging Mkts Stock Idx Instl	8.12	1.31	5.31	2.05	3.21
FTSE EMs AC China A Incl (US RIC) NR USD	8.11	1.16	5.41	2.34	3.55
Median	8.85	0.52	5.17	2.06	3.32
5th Percentile	17.97	9.66	9.31	5.08	5.96
25th Percentile	11.71	3.81	6.88	3.16	4.75
50th Percentile	8.85	0.52	5.17	2.06	3.32
75th Percentile	5.71	-2.66	3.57	0.57	2.46
95th Percentile	1.77	-6.70	0.99	-1.48	1.06

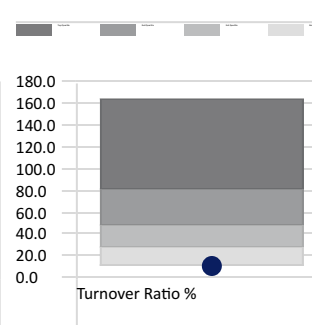
Expense vs Peer Group

Peer Group (5-95%): US OE Diversified Emerging Markets



Turnover vs Peer Group

Peer Group (5-95%): US OE Diversified Emerging Markets



Vanguard Emerging Mkts Stock Idx Instl

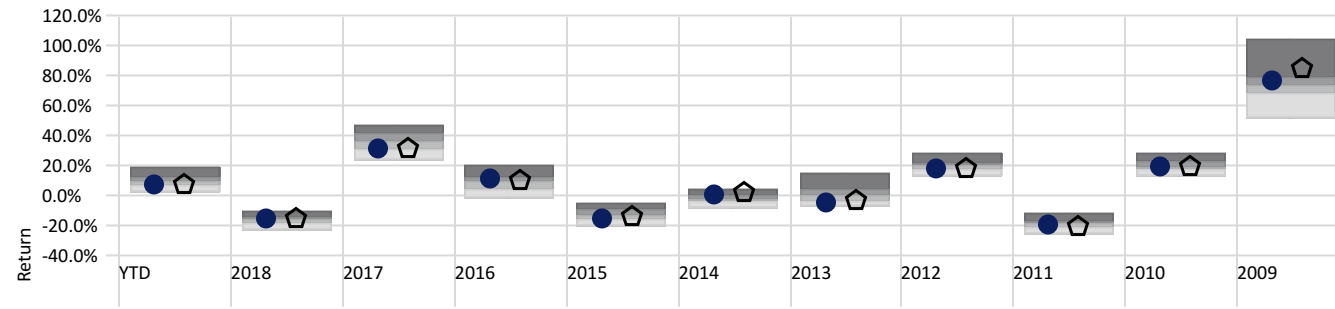
VEMIX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Diversified Emerging Markets Calculation Benchmark: FTSE EMs AC China A Incl (US RIC) NR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



● Vanguard Emerging Mkts Stock Idx Instl

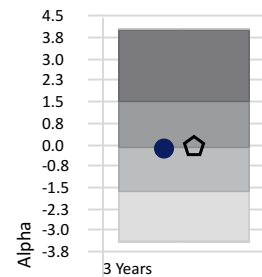
★ FTSE EMs AC China A Incl (US RIC) NR USD

As of Date: 9/30/2019 Calculation Benchmark: FTSE EMs AC China A Incl (US RIC) NR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Vanguard Emerging Mkts Stock Idx Instl	8.12	-14.54	31.43	11.76	-15.34	0.67	-4.99	18.91	-18.63	19.06	76.35
FTSE EMs AC China A Incl (US RIC) NR USD	8.11	-14.77	31.06	10.30	-13.55	2.64	-3.17	18.14	-19.99	19.81	85.17
Count	778	720	671	618	547	466	402	345	276	235	224
25th Percentile	11.71	-14.56	40.74	11.68	-10.02	0.02	3.56	21.28	-17.39	22.26	78.44
50th Percentile	8.85	-16.62	36.11	8.25	-13.56	-2.82	-0.89	19.33	-18.86	18.85	72.91
75th Percentile	5.71	-19.12	30.63	3.96	-16.03	-4.76	-4.02	16.95	-21.62	17.28	67.38

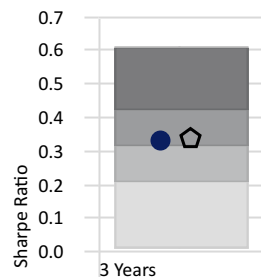
3 Yr Alpha

Peer Group (5-95%): US OE Diversified Emerging Markets



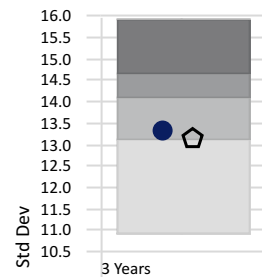
3 Yr Sharpe

Peer Group (5-95%): US OE Diversified Emerging Markets



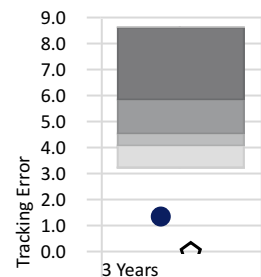
3 Yr Std Deviation

Peer Group (5-95%): US OE Diversified Emerging Markets



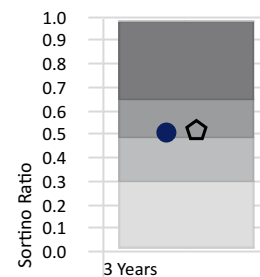
3 Yr Tracking Error

Peer Group (5-95%): US OE Diversified Emerging Markets



3 Yr Sortino

Peer Group (5-95%): US OE Diversified Emerging Markets



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Vanguard Emerging Mkts Stock Idx Instl	13.34	0.33	-0.12	1.01	0.51	-0.07	47.22	1.42
FTSE EMs AC China A Incl (US RIC) NR USD	13.15	0.34			0.52			

US OE Diversified Emerging Mkts

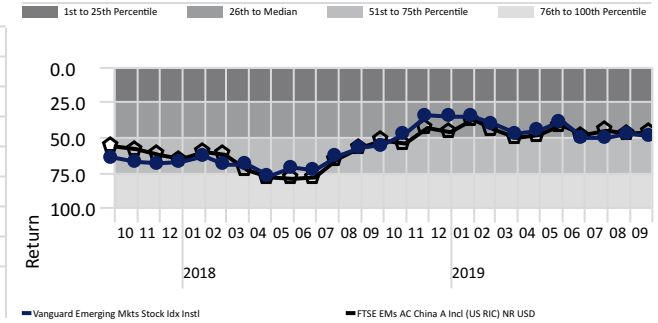
Vanguard Emerging Mkts Stock Idx Instl	13.34	0.33	-0.12	1.01	0.51	-0.07	47.22	1.42
FTSE EMs AC China A Incl (US RIC) NR USD	13.15	0.34			0.52			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

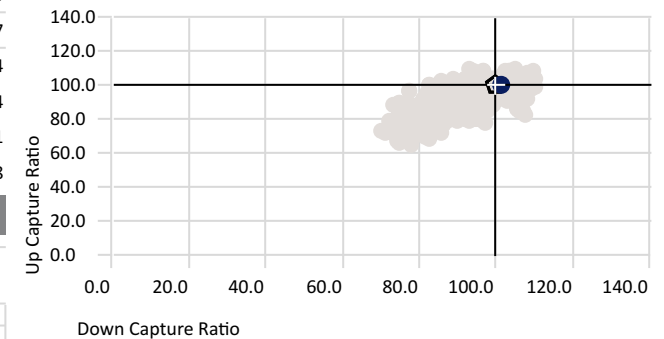
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: FTSE EMs AC China A Incl (US RIC) NR USD



Up/Down Market Capture Ratio

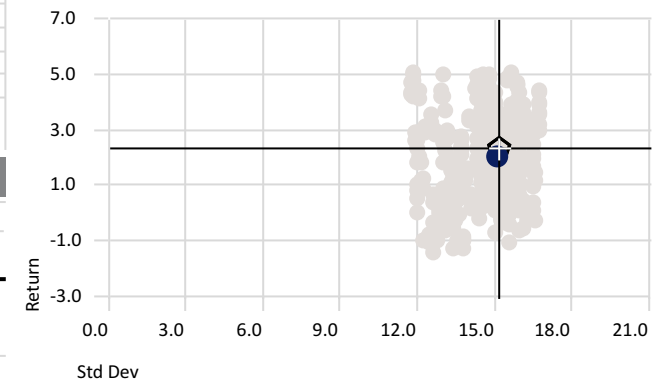
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: FTSE EMs AC China A Incl (US RIC) NR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



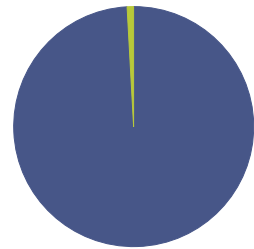
Vanguard Real Estate Index Institutional

VGSNX



Asset Allocation

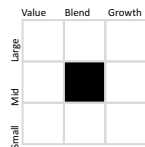
Portfolio Date: 8/31/2019



Stock	99.1	%
Bond	0.0	
Cash	0.9	
Other	0.0	
Total	100.0	

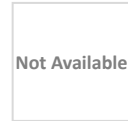
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	0.3	0.3
Consumer Cyclical %	0.0	0.0
Financial Services %	0.0	0.0
Real Estate %	91.5	91.5
Consumer Defensive %	0.0	0.0
Healthcare %	0.0	0.0
Utilities %	0.0	0.0
Communication Services %	8.1	8.1
Energy %	0.0	0.0
Industrials %	0.0	0.0
Technology %	0.0	0.0

Credit Quality

	Avg Eff Duration
Avg Eff Maturity	
Avg Cred Qual	
Cred Qual AAA%	
Cred Qual AA%	
Cred Qual A%	
Credit Qual BBB %	
Credit Qual BB %	
Credit Qual B %	
Credit Qual Below B %	

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
Vanguard Real Estate II Index		7,566	4.88	11.11%
American Tower Corp		4,909	8.43	7.21%
Crown Castle International Corp		2,912	3.57	4.27%
Prologis Inc		2,546	8.45	3.74%
Equinix Inc		2,255	10.03	3.31%
Simon Property Group Inc		2,220	-7.09	3.26%
Public Storage		2,006	-0.54	2.94%
Welltower Inc		1,745	9.33	2.56%
Equity Residential		1,515	11.79	2.22%
SBA Communications Corp		1,435	3.10	2.11%
Turnover Ratio %				24.00
% Asset in Top 10 Holdings				42.73

Key Information

Ticker	VGSNX
Morningstar Category	US Fund Real Estate
Firm Name	Vanguard
Advisor	Vanguard Group Inc
Manager Name	Multiple
Inception Date	12/2/2003
Fund Size (Mil)	69,464.76
Prospectus Net Expense Ratio	0.10
Firm Name	Vanguard
Web Address	www.vanguard.com

Key Information

Morningstar Rating Overall	★★★★
Morningstar Rating 3 Yr	★★★
Morningstar Return % Rank Cat 3 Yr	49
Morningstar Rating 5 Yr	★★★
Morningstar Return % Rank Cat 5 Yr	36
Morningstar Rating 10 Yr	★★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	31

Key Statistics

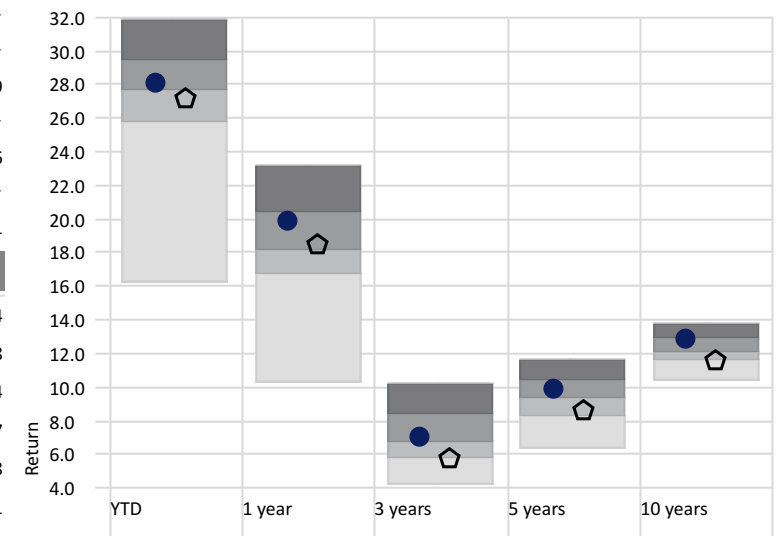
Arithmetic Mean 3 Yr (Mo-End)	0.64
Std Dev 3 Yr (Mo-End)	12.88
Alpha 3 Yr (Mo-End)	1.54
Sharpe Ratio 3 Yr (Mo-End)	0.47
Arithmetic Mean 5 Yr (Mo-End)	0.88
Std Dev 5 Yr (Mo-End)	14.31
Alpha 5 Yr (Mo-End)	6.38
Sharpe Ratio 5 Yr (Mo-End)	0.67

Investment Strategy

The investment seeks to provide a high level of income and moderate long-term capital appreciation by tracking the performance of the MSCI US Investable Market Real Estate 25/50 Index that measures the performance of publicly traded equity REITs and other real estate-related investments. The advisor attempts to track the index by investing all, or substantially all, of its assets-either directly or indirectly through a wholly owned subsidiary, which is itself a registered investment company-in the stocks that make up the index, holding each stock in approximately the same proportion as its weighting in the index. The fund is non-diversified.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Real Estate

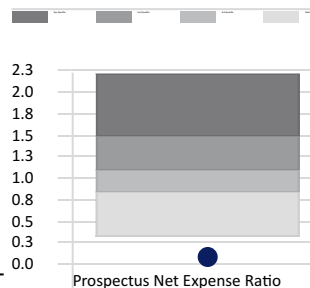


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Vanguard Real Estate Index Institutional	28.20	19.92	7.10	9.96	12.91
Vanguard Real Estate Index	27.17	18.58	5.85	8.68	11.61
Median	27.68	18.15	6.79	9.42	12.15
5th Percentile	31.80	23.17	10.25	11.60	13.83
25th Percentile	29.47	20.48	8.40	10.41	12.97
50th Percentile	27.68	18.15	6.79	9.42	12.15
75th Percentile	25.77	16.75	5.84	8.34	11.63
95th Percentile	16.25	10.33	4.23	6.43	10.42

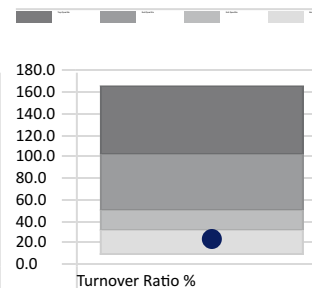
Expense vs Peer Group

Peer Group (5-95%): US OE Real Estate



Turnover vs Peer Group

Peer Group (5-95%): US OE Real Estate



Vanguard Real Estate Index Institutional

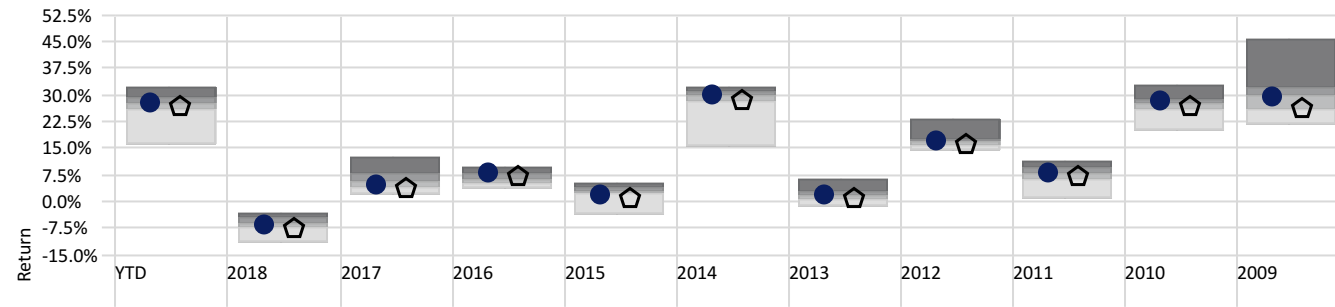
VGSNX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Real Estate Calculation Benchmark: Vanguard Real Estate Index

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



● Vanguard Real Estate Index Institutional

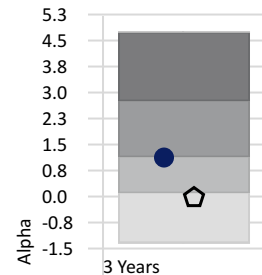
★ Vanguard Real Estate Index

As of Date: 9/30/2019 Calculation Benchmark: Vanguard Real Estate Index

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Vanguard Real Estate Index Institutional	28.20	-5.93	4.93	8.51	2.45	30.28	2.48	17.65	8.70	28.56	29.76
Vanguard Real Estate Index	27.17	-7.05	3.74	7.14	1.28	28.82	1.26	16.47	7.48	26.97	26.27
Count	240	228	209	203	191	178	164	156	148	134	127
25th Percentile	29.47	-4.61	7.79	7.74	3.87	30.77	2.67	17.72	9.32	28.81	31.96
50th Percentile	27.68	-5.96	5.38	5.98	2.96	29.73	1.70	16.74	8.10	27.60	29.58
75th Percentile	25.77	-7.52	4.07	5.00	2.05	28.20	0.80	15.91	6.25	25.75	26.08

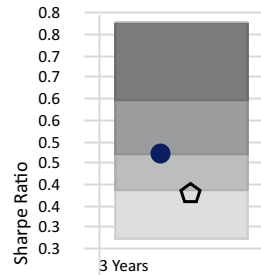
3 Yr Alpha

Peer Group (5-95%): US OE Real Estate



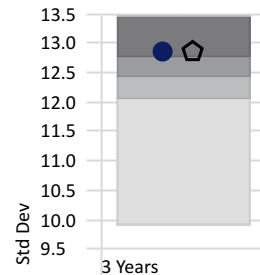
3 Yr Sharpe

Peer Group (5-95%): US OE Real Estate



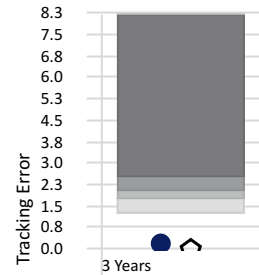
3 Yr Std Deviation

Peer Group (5-95%): US OE Real Estate



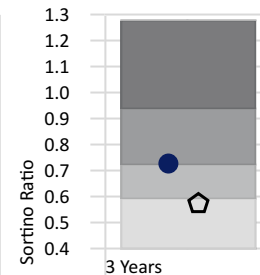
3 Yr Tracking Error

Peer Group (5-95%): US OE Real Estate



3 Yr Sortino

Peer Group (5-95%): US OE Real Estate



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Vanguard Real Estate Index Institutional	12.88	0.47	1.17	1.00	0.73	5.48	100.00	0.23
Vanguard Real Estate Index	12.86	0.38			0.58			

US OE Real Estate

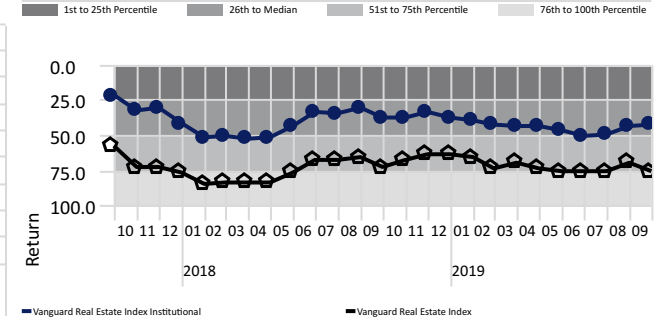
Vanguard Real Estate Index Institutional	12.88	0.47	1.17	1.00	0.73	5.48	100.00	0.23
Vanguard Real Estate Index	12.86	0.38			0.58			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

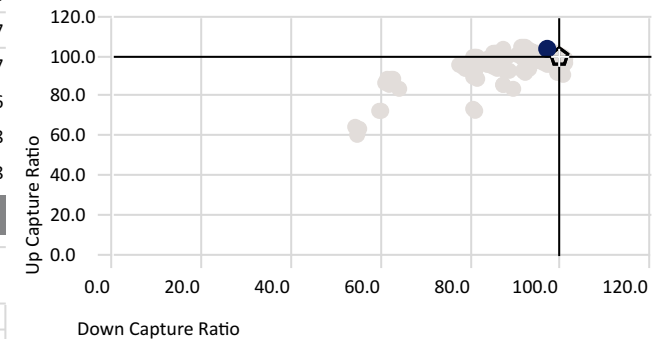
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: Vanguard Real Estate Index



Up/Down Market Capture Ratio

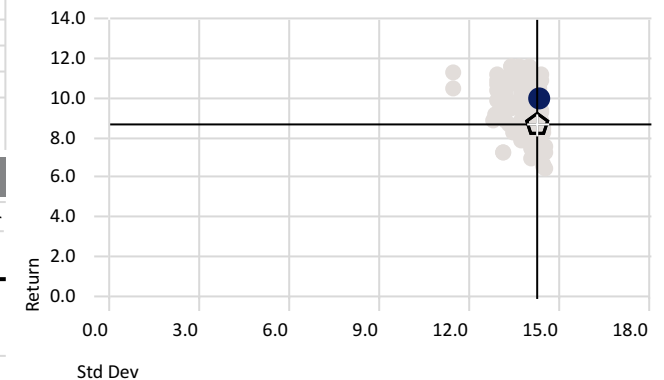
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: Vanguard Real Estate Index



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019

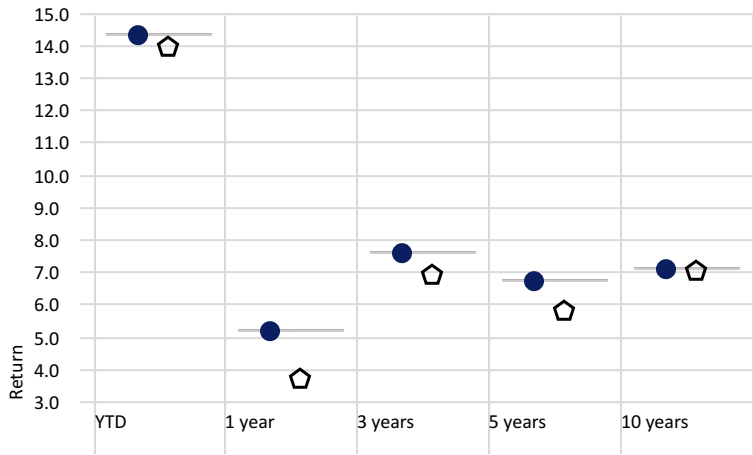


Employee Plan - Return



Performance Versus Benchmark

Peer Group (5-95%): Display Group



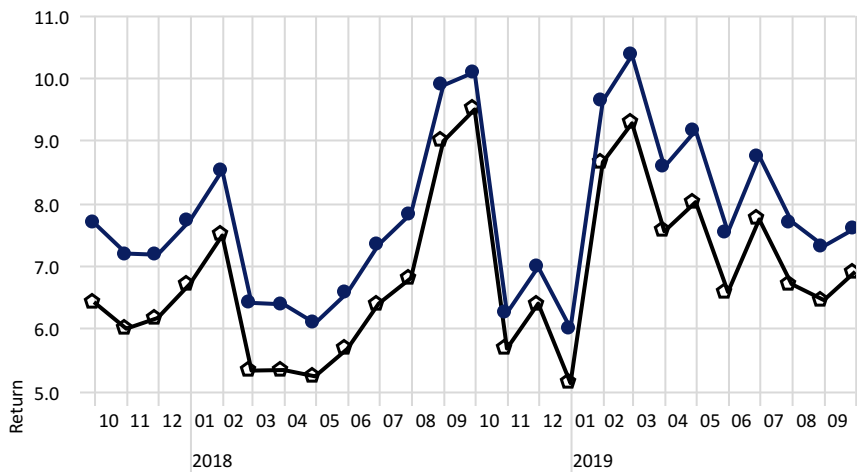
As of Date: 9/30/2019

	YTD	3 months	1 year	3 years	5 years	10 years
Employee Plan - Return	14.35	0.65	5.20	7.61	6.78	7.12
Dover EE Index	14.01	1.10	3.77	6.92	5.86	7.07

Rolling Returns

Time Period: 10/1/2014 to 9/30/2019

Rolling Window: 3 Years 1 Month shift Calculation Benchmark: Dover EE Index



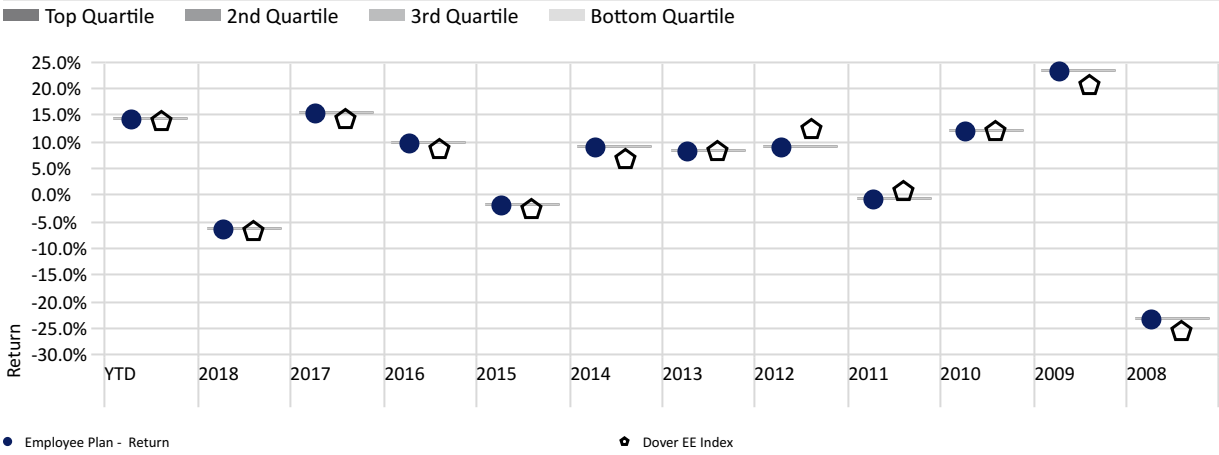
Employee Plan - Return

Dover EE Index

Source: Morningstar Direct

Performance Versus Benchmark

Peer Group (5-95%): Display Group Calculation Benchmark: Dover EE Index



As of Date: 9/30/2019 Calculation Benchmark: Dover EE Index

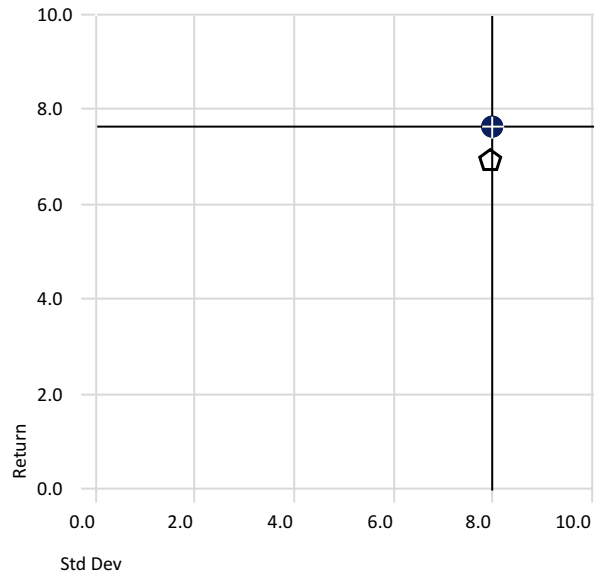
	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Employee Plan - Return	14.35	-6.19	15.52	9.96	-1.56	9.00	8.43	9.28	-0.70	12.29	23.45	-23.29
Dover EE Index	14.01	-6.68	14.41	8.86	-2.40	6.95	8.34	12.62	1.04	12.27	20.85	-25.24

Key Statistics

Arithmetic Mean 1 Yr (Mo-End)	0.48
Std Dev 1 Yr (Mo-End)	1.19
Alpha 1 Yr (Mo-End)	0.28
Sharpe Ratio 1 Yr (Mo-End)	0.64
Arithmetic Mean 3 Yr (Mo-End)	7.99
Std Dev 3 Yr (Mo-End)	-1.29
Alpha 3 Yr (Mo-End)	0.76
Sharpe Ratio 3 Yr (Mo-End)	0.58
Arithmetic Mean 5 Yr (Mo-End)	8.11
Std Dev 5 Yr (Mo-End)	-0.54
Alpha 5 Yr (Mo-End)	0.72
Sharpe Ratio 5 Yr (Mo-End)	

Risk-Reward

Time Period: 10/1/2016 to 9/30/2019





To:	City of Dover, Delaware Police Pension Plan – Board
From:	Jeff Marzinsky – Milliman
Re:	Board Meeting Notes

Enclosures: Milliman Quarterly Investment Monitor Report (QIM)

1. Police Pension Plan Investment Review through quarter end:

- As of quarter end, the plan had approximately \$13.8 million in assets, down from \$14.1 million at the prior quarter end. During the quarter, the plan had no contributions, withdrawals/payments of approximately \$380 thousand, and fees of approximately \$1.3 thousand.
- Total performance of the plan portfolio was 0.64% net (0.70% gross) for the quarter, less than the Plan's benchmark index performance of 0.97%. For the year, the plan return was 4.85% net, 5.11% gross, exceeding the benchmark performance of 3.38%.

City of Dover Police Pension Plan Quarterly Return Summary									
Month End	BMV	Contribution	Withdrawals	Fees	Gain	EMV	POLICE-NET RETURN	POLICE GROSS- RETURN	
10/31/2018	\$ 13,792,378.00	\$ -	\$ 125,643.01	\$ 438.66	\$ (764,344.27)	\$ 12,901,952.06	-5.59%	-5.57%	
11/30/2018	\$ 12,901,952.06	\$ -	\$ 125,404.85	\$ 414.24	\$ 240,224.53	\$ 13,016,357.50	1.88%	1.90%	
12/31/2018	\$ 13,016,357.50	\$ -	\$ 125,350.28	\$ 418.34	\$ (591,716.38)	\$ 12,298,872.50	-4.59%	-4.56%	
1/31/2019	\$ 12,298,872.50	\$ -	\$ 127,771.49	\$ 398.77	\$ 788,121.53	\$ 12,958,823.77	6.47%	6.49%	
2/28/2019	\$ 12,958,823.77	\$ 610,000.00	\$ 127,693.76	\$ 415.09	\$ 294,318.10	\$ 13,735,033.02	2.22%	2.24%	
3/31/2019	\$ 13,735,033.02	\$ -	\$ 126,801.02	\$ 423.48	\$ 171,234.92	\$ 13,779,043.44	1.26%	1.28%	
4/30/2019	\$ 13,779,043.44	\$ -	\$ 126,801.02	\$ 428.64	\$ 318,704.78	\$ 13,970,518.56	2.33%	2.35%	
5/31/2019	\$ 13,970,518.56	\$ -	\$ 126,801.02	\$ 429.25	\$ (531,430.12)	\$ 13,311,858.17	-3.84%	-3.82%	
6/30/2019	\$ 13,311,858.17	\$ 271,000.00	\$ 126,801.02	\$ 420.32	\$ 618,844.10	\$ 14,074,480.93	4.68%	4.70%	
7/31/2019	\$ 14,074,480.93	\$ -	\$ 126,801.02	\$ 421.69	\$ 71,410.85	\$ 14,018,669.07	0.51%	0.53%	
8/31/2019	\$ 14,018,669.07	\$ -	\$ 126,801.02	\$ 424.25	\$ (133,181.17)	\$ 13,758,262.63	-0.96%	-0.94%	
9/30/2019	\$ 13,758,262.63	\$ -	\$ 126,801.02	\$ 421.97	\$ 149,481.86	\$ 13,780,521.50	1.10%	1.12%	
							Quarterly Return	0.64%	0.70%
							One Year Return	4.85%	5.11%

- The chart below describes the current target allocation for the plan.

Category Description	Fund Category	Investment Name	Target Allocation with Additional Asset Classes	Asset Allocation Range
Money Market	CA	Wells Fargo Advtg Treas Plus MMkt	7.00%	8-18%; target 13% Cash + STB
Short Term Bonds	STB	Vanguard Short Term Bond	6.00%	8-18%; target 13% Cash + STB
Non-traditional Bond	NTB	Columbia Strategic Income	3.00%	0-8%; target of 3% NTB
Inflation Protected Bonds	TIPS	Vanguard Inflation Prot Sec	5.00%	0-10%; target of 5% TIPS
Intermediate Term Bonds	INTB	Vanguard Intermediate Bond	3.00%	0-8%; target 3% INTB
Long Term Bonds	LTB	PIMCO Long Duration	2.50%	0-10%; target 5% LTB
Long Term Bonds	LTB	Vanguard Long Duration	2.50%	0-10%; target 5% LTB
High Yield Bond	HYB	Prudential High Yield	5.00%	0-10%; target 5% HYB
Large Cap Value	LCV	Vanguard Equity Income	8.00%	3-13%; target 8% LCV
Large Cap Growth	LCG	Vanguard Primecap	7.42%	CLOSED - no longer accepting contributions
Large Cap Growth	LCG	Vanguard Growth Index	3.58%	6-16%; target 11% LCG
Mid Cap	MCB	Vanguard Mid Cap Index	4.00%	3-13%; target 8% MC
Mid Cap	MCV	Vanguard Mid Cap Value Index	4.00%	3-13%; target 8% MC
Small Cap	SCV	Prudential Small Cap Val	0.00%	REPLACED 2019-9-25
Small Cap	SCV	Janus Henderson Small Cap Value	4.00%	3-13%; target 8% SC
Small Cap	SCG	Federate Kaufmann Small Cap	4.00%	3-13%; target 8% SC
Real Estate Investment	REIT	Vanguard REIT Index	5.00%	0-10%; target 5% REIT
Foreign Equity	GLB	American Funds New Perspective	7.00%	9-19%; target 14% FOR
Foreign Equity	FLG	Oppenheimer International Growth Y	0.00%	REPLACED 2019-9-25
Foreign Equity	FLG	Morgan Stanley Instl Intl Adv	7.00%	9-19%; target 14% FOR
Emerging Markets	EMG	Vanguard Emerging Mkts	12.00%	7-17%; target 12% Emg Mkts

- d. The target allocation was unchanged during the quarter aside from the following:
- Janus Henderson Small Cap Value replaced PGIM/Prudential Small Cap Value.
 - Morgan Stanley Inst Intl Advantage replaced Invesco Oppenheimer International Growth.
 - A minor adjustment was made to the large cap growth funds, Vanguard Primecap and Vanguard Growth Index. The total large cap growth allocation remains the same, however. Note that Vanguard Primecap is closed and no longer accepting contributions.
- e. A Portfolio Scorecard is utilized to review fund performance based on a variety of analytic measures, as well as focusing on specific asset category, investment style (active or passive), and socially conscious nature of the individual investments. The following grid indicates whether a fund meets these various quantitative measures by displaying a “√” (check) mark, or does not meet the criteria by displaying an “x” (x-mark). “Watch” means that the fund is not meeting criteria and is trailing in performance compared to both its peer group and benchmarks. A “-” mark means that the fund is trailing in some areas of review, but not currently enough to fall to “Watch”. A “*” indicates that the fund has less than 5 years of data.

In the following exhibit, Milliman’s analytic review indicates that nearly all of the funds meet the screens for each asset class peer group, as designated with “Approve” status under “Mgr Rating”.

		Active Fund Criteria								Index Fund Criteria				Prospectus Net Expense Ratio	Mgr Rating
Index Fund		3Yr-Index	3Yr-Peer	3Yr-Alpha	3Yr-Sharpe	5Yr-Index	5Yr-Peer	5Yr-Alpha	5Yr-Sharpe	3Yr-Beta	3Yr-TrackErr	5Yr-Beta	5Yr-TrackErr		
Wells Fargo Treasury Plus MMkt Inst														0.20	
Vanguard Inflation-Protected Secs I		x	√	√	√	x	√	√	√					0.07	Approve
Vanguard Short-Term Bond Index Adm	Yes												√	0.07	-
Vanguard Interm-Term Bond Index Adm	Yes									√	√	√	√	0.07	Approve
Vanguard Long-Term Bond Index Investor	Yes									√	√	√	√	0.15	Approve
PIMCO Long Duration Total Return Instl		√	√	√	x	√	√	√	√					0.97	Approve
PGIM High Yield R6		√	√	√	√	√	√	√	√					0.42	Approve
Columbia Strategic Income Inst3		√	√	√	√	√	√	√	√					0.61	Approve
Vanguard Equity-Income Adm		√	√	√	√	√	√	√	√					0.18	Approve
Vanguard PRIMECAP Core Inv		x	√	x	√	√	√	√	√					0.46	-
Vanguard Growth Index Admiral	Yes									√	√	√	√	0.05	Approve
Vanguard Mid-Cap Value Index Admiral	Yes									√	√	√	√	0.07	Approve
Vanguard Mid Cap Index Admiral	Yes									√	√	√	√	0.05	Approve
Janus Henderson Small Cap Value I		√	√	√	√	√	√	√	√					0.88	Approve
Federated Kaufmann Small Cap Instl		√	√	√	√									0.91	*
Morgan Stanley Inst Intl Advtg I		√	√	√	√	√	√	√	√					1.00	Approve
American Funds New Perspective R6		√	√	√	√	√	√	√	√					0.45	Approve
Vanguard Emerging Mkts Stock Idx Instl	Yes									√	x	√	x	0.10	-
Vanguard Real Estate Index Institutional	Yes									√	√	√	√	0.10	Approve
Police Pension Plan - Return															

- f. Comments on specific funds:
- Vanguard Short Term Bond Index
 - The 1 year beta statistic of 0.93 is a little low, however 3 and 5 year statistics are closer to 1.0.
 - No formal watch is necessary.
 - Vanguard PRIMECAP Core
 - The fund is trailing its index in the near-term and over 3 years. Rank versus peers has dropped to the bottom quartile over 1 year.
 - Risk adjusted measures alpha and Sharpe have also dropped below the peer group median over 3 years.
 - We will continue to monitor the fund, but no formal watch is necessary at this time.

iii. Vanguard Emerging Markets Stock Index

- This fund made a benchmark change in 2016. We will see elevated tracking error for a few more quarters as a result.
- No formal watch is necessary.

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Quarterly Investment Monitor

Prepared for:

CITY OF DOVER, DELAWARE POLICE PENSION PLAN

As of: 9/30/2019

Milliman, Inc.
New York

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The One Year, Three Year, Five Year, and Ten Year rates of return are time-weighted annual rates. The One Month, Three Month, and Year to Date rates of return are rates for the period indicated. All returns include fund internal expenses, except sales charges, if any. The rates of return shown are for the mutual funds in which the retirement program participates, not for the plan specifically. Returns credited to individual accounts will vary due to the timing of contributions, transfers, and withdrawals.

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SECTION I - Market Update

Market Commentary

Markets declined during August amid increasing trade war tensions and fears of a recession in the US. Global equity markets staged a rebound during September, only to pull back at the end of the quarter.

U.S. stocks rose modestly during the quarter, with increased volatility. The Dow finished the quarter up 1.83%, while the S&P 500 rose 1.70%. The Russell Mid Cap Index rose 0.48% and the Russell 2000 fell 2.40%. Across market caps, large value and growth finished similarly, while value outpaced growth in small and mid-caps.

International equity markets finished the quarter in negative territory. The MSCI EAFE was down 1.07%, while the MSCI EAFE Small Cap Index fell 0.44%. The MSCI Emerging Markets Index fell 4.25%. Globally, we continue to see trade war tensions negatively influencing equity markets.

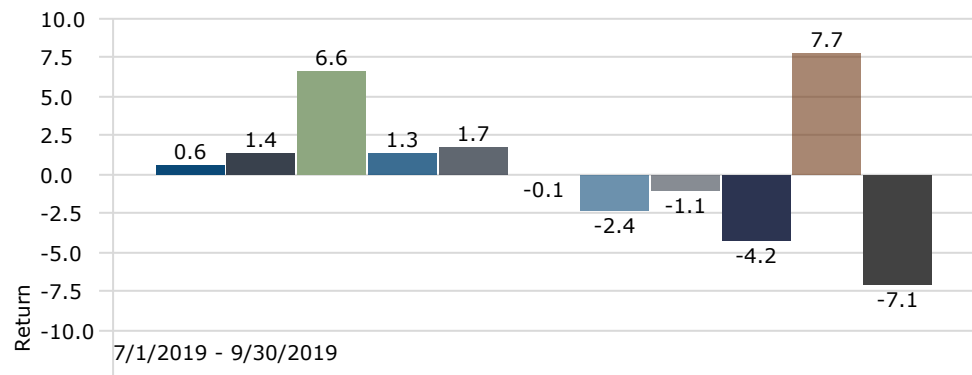
The FOMC (Fed) made a 25-basis point reduction in interest rates in both July and September. The Fed indicated that the labor market remains strong and economic activity has been rising at a moderate rate, with low unemployment and solid job gains. However, the Fed indicated business investment and exports have weakened, the global economic outlook remains uncertain and inflation is running below the 2% target.

Unemployment remained at the 3.7% achieved during June. Initial jobless claims dipped earlier in the quarter, but have trended back up to the 215,000 range. GDP growth has indicated some slowing in the economy with a current rate in the 2% range.

Crude oil rose prices averaged \$55 a barrel during the quarter, even with the attack on Saudi facilities during September. Oil was \$54 a barrel at the end of the quarter.

Milliman - Periodic Table

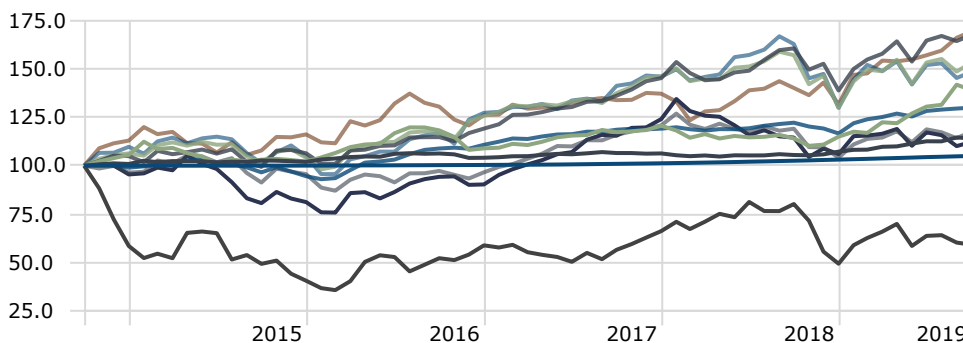
As of Date: 9/30/2019



■ BofAML US Treasury Bill 3 Mon TR USD
 ■ BBgBarc US Corporate High Yield TR USD
 ■ Russell 2000 TR USD
 ■ FTSE NAREIT All Equity REITs TR USD
 ■ BBgBarc US Govt/Credit Interm TR USD
 ■ S&P 500 TR USD
 ■ MSCI EAFE NR USD
 ■ WTexas Crude Int Oil BL
 ■ BBgBarc US Govt/Credit Long TR USD
 ■ S&P MidCap 400 TR
 ■ MSCI EM NR USD

Milliman - Periodic Table

Time Period: 10/1/2014 to 9/30/2019



■ BofAML US Treasury Bill 3 Mon TR USD
 ■ BBgBarc US Corporate High Yield TR USD
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 ■ MSCI EAFE NR USD
 ■ WTexas Crude Int Oil BL
 ■ BBgBarc US Govt/Credit Long TR USD
 ■ S&P MidCap 400 TR
 ■ MSCI EM NR USD

Milliman - Market Update

Data Point: Return

	QTR	YTD	1 Year	3 Years	5 Years	10 Years	15 Years
BofAML US Treasury Bill 3 Mon TR USD	0.56	1.81	2.39	1.54	0.98	0.54	1.39
Barclays US Treasury US TIPS TR USD	1.35	7.58	7.13	2.21	2.45	3.46	3.90
Barclays US Govt/Credit 1-3 Yr TR USD	0.69	3.42	4.64	1.82	1.59	1.52	2.43
Barclays US Govt/Credit Interm TR USD	1.37	6.41	8.17	2.40	2.68	3.05	3.59
Barclays US Govt/Credit Long TR USD	6.58	20.93	21.88	5.56	6.81	7.42	6.94
Barclays US Corporate High Yield TR USD	1.33	11.41	6.36	6.07	5.37	7.94	7.33
DJ Industrial Average TR USD	1.83	17.51	4.21	16.44	12.28	13.56	9.51
Russell 1000 Value TR USD	1.36	17.81	4.00	9.43	7.79	11.46	7.82
S&P 500 TR USD	1.70	20.55	4.25	13.39	10.84	13.24	9.01
Russell 1000 Growth TR USD	1.49	23.30	3.71	16.89	13.39	14.94	10.40
S&P MidCap 400 TR	-0.09	17.87	-2.49	9.38	8.88	12.56	9.82
Russell 2000 TR USD	-2.40	14.18	-8.89	8.23	8.19	11.19	8.19
MSCI EAFE NR USD	-1.07	12.80	-1.34	6.48	3.27	4.90	5.29
MSCI EAFE Small Cap NR USD	-0.44	12.05	-5.93	5.94	6.02	7.45	7.35
MSCI EM NR USD	-4.25	5.89	-2.02	5.97	2.33	3.37	7.82
FTSE NAREIT All REITs TR	7.24	27.37	19.58	9.02	10.90	13.30	8.76
Bloomberg Commodity TR USD	-1.84	3.13	-6.57	-1.50	-7.18	-4.32	-3.13
WTexas Crude Int Oil BL	-7.06	19.80	-26.07	4.27	-9.91	-2.61	0.58

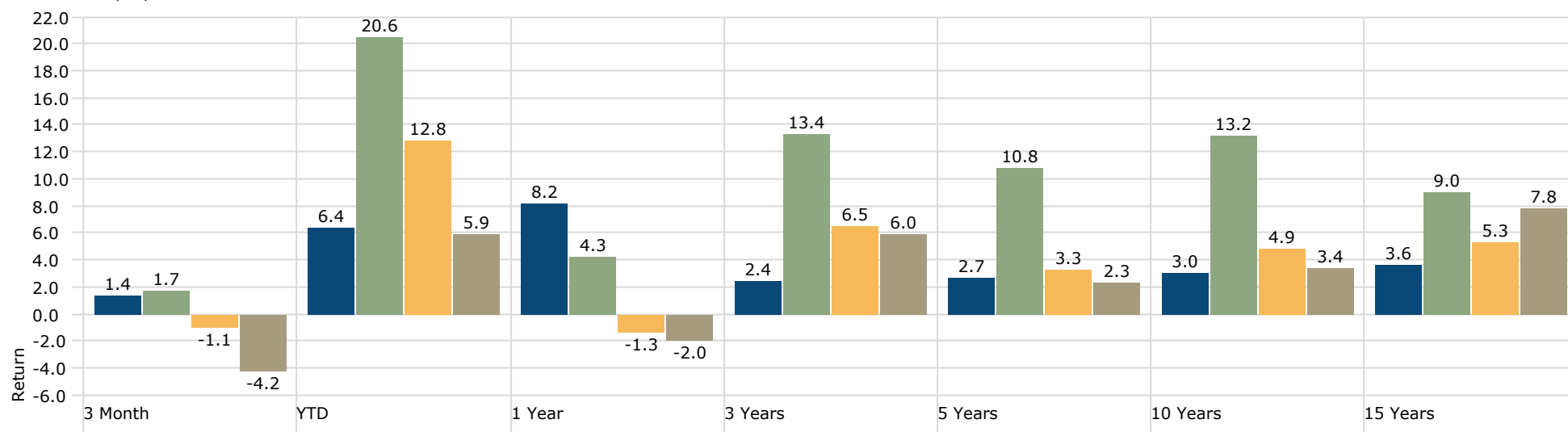
Milliman - Market Update

Time Period: 10/1/2018 to 9/30/2019

	BofAML US Treasury Bill 3 Mon TR USD	Barclays US Treasury US TIPS TR USD	Barclays US Govt/Credit 1-3 Yr TR USD	Barclays US Govt/Credit Interm TR USD	Barclays US Govt/Credit Long TR USD	Barclays US Corporate High Yield TR USD	DJ Industrial Average TR USD	Russell 1000 Value TR USD	S&P 500 TR USD	Russell 1000 Growth TR USD	S&P MidCap 400 TR	Russell 2000 TR USD	MSCI EAFE NR USD	MSCI EAFE Small Cap NR USD	MSCI EM NR USD	FTSE NAREIT All REITs TR	Bloomberg Commodity TR USD	WTexas Crude Int Oil BL
2018-10	0.17	-1.43	0.11	-0.14	-3.35	-1.60	-4.98	-5.18	-6.84	-8.94	-9.55	-10.86	-7.96	-9.63	-8.71	-2.62	-2.16	-10.73
2018-11	0.21	0.48	0.29	0.45	0.55	-0.86	2.11	2.99	2.04	1.06	3.12	1.59	-0.13	-0.70	4.12	4.49	-0.56	-22.25
2018-12	0.18	0.55	0.78	1.34	3.70	-2.14	-8.59	-9.60	-9.03	-8.60	-11.32	-11.88	-4.85	-6.45	-2.65	-7.73	-6.89	-11.09
2019-01	0.20	1.35	0.39	0.87	2.24	4.52	7.29	7.78	8.01	8.99	10.46	11.25	6.57	8.06	8.76	11.42	5.45	19.25
2019-02	0.18	-0.01	0.16	0.09	-0.55	1.66	4.03	3.20	3.21	3.58	4.24	5.20	2.55	2.24	0.22	0.50	1.01	6.26
2019-03	0.22	1.84	0.66	1.35	4.70	0.94	0.17	0.64	1.94	2.85	-0.57	-2.09	0.63	0.16	0.84	4.22	-0.18	5.21
2019-04	0.19	0.33	0.23	0.19	-0.40	1.42	2.66	3.55	4.05	4.52	4.02	3.40	2.81	3.02	2.11	-0.06	-0.42	6.05
2019-05	0.23	1.65	0.69	1.31	4.13	-1.19	-6.32	-6.43	-6.35	-6.32	-7.97	-7.78	-4.80	-5.29	-7.26	0.20	-3.36	-16.20
2019-06	0.22	0.86	0.56	1.07	2.78	2.28	7.31	7.18	7.05	6.87	7.64	7.07	5.93	4.24	6.24	1.63	2.69	8.81
2019-07	0.18	0.36	-0.06	-0.03	0.73	0.56	1.12	0.83	1.44	2.26	1.19	0.58	-1.27	-0.71	-1.22	1.58	-0.67	0.57
2019-08	0.21	2.38	0.81	1.77	7.87	0.40	-1.32	-2.94	-1.58	-0.77	-4.19	-4.94	-2.59	-2.47	-4.88	3.40	-2.32	-5.91
2019-09	0.17	-1.36	-0.05	-0.36	-1.91	0.36	2.05	3.57	1.87	0.01	3.06	2.08	2.87	2.81	1.91	2.11	1.17	-1.78

Milliman - Broad Market

As of Date: 9/30/2019



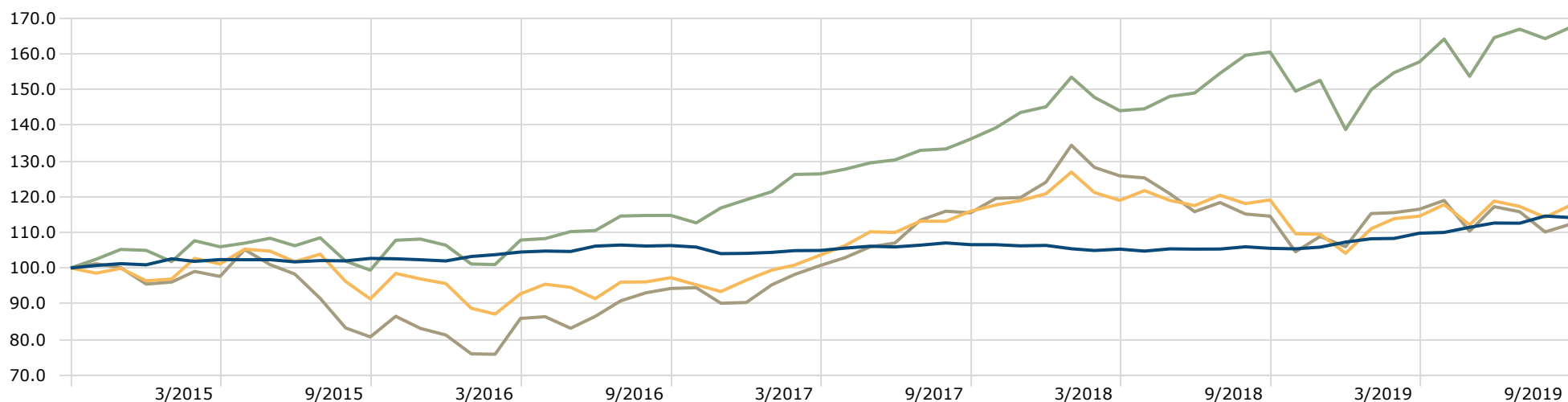
Barclays US Govt/Credit Interm TR USD
MSCI EM NR USD

S&P 500 TR USD

MSCI EAFE NR USD

Milliman - Broad Market

Time Period: 10/1/2014 to 9/30/2019



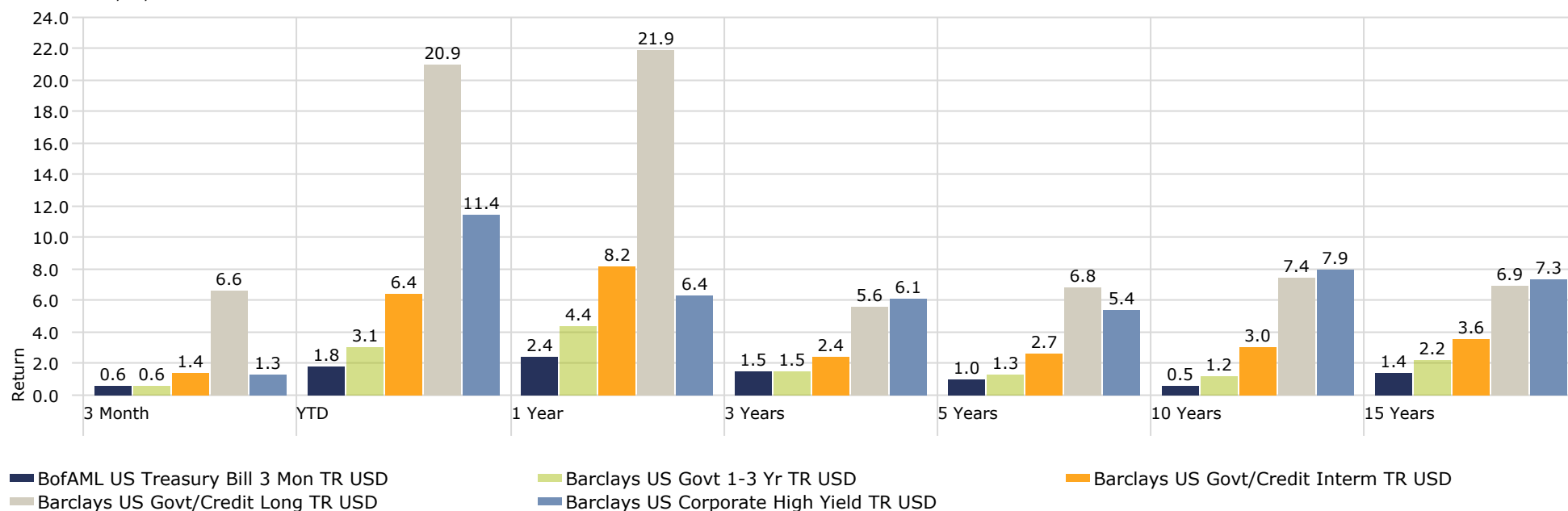
Barclays US Govt/Credit Interm TR USD
MSCI EM NR USD

S&P 500 TR USD

MSCI EAFE NR USD

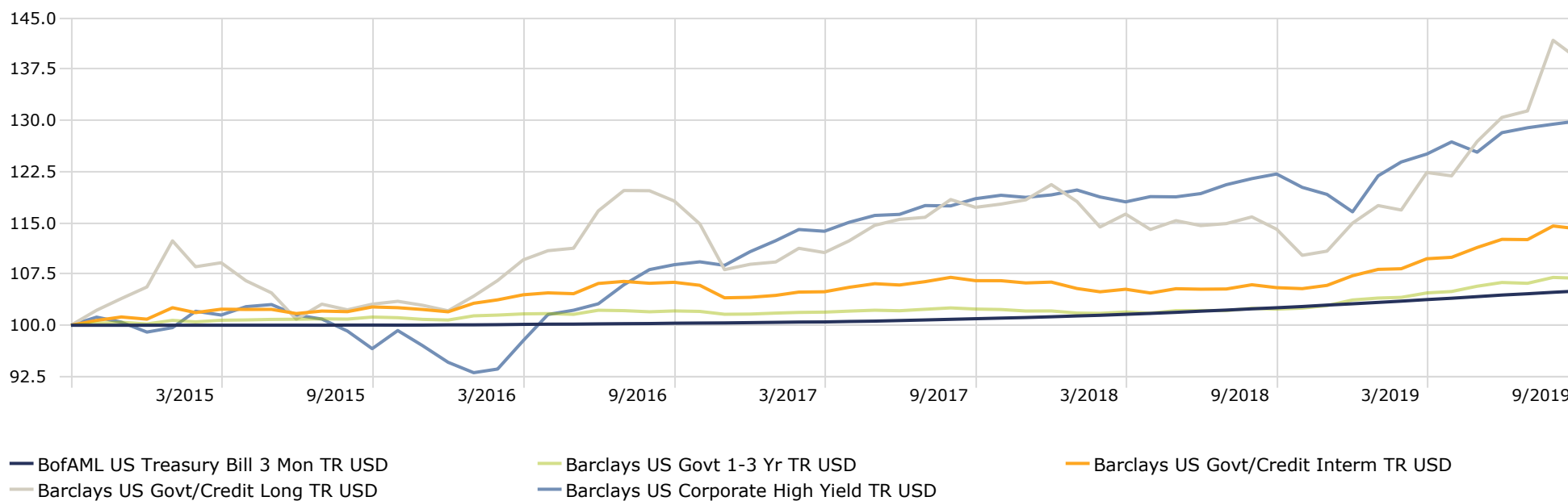
Milliman - Fixed Income Market

As of Date: 9/30/2019



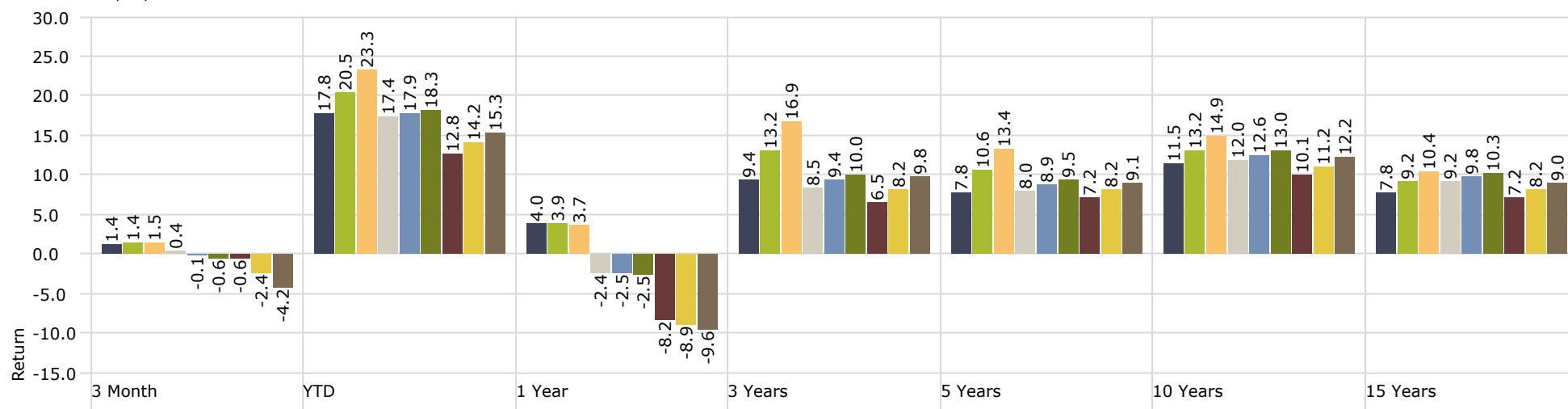
Milliman - Fixed Income Market

Time Period: 10/1/2014 to 9/30/2019



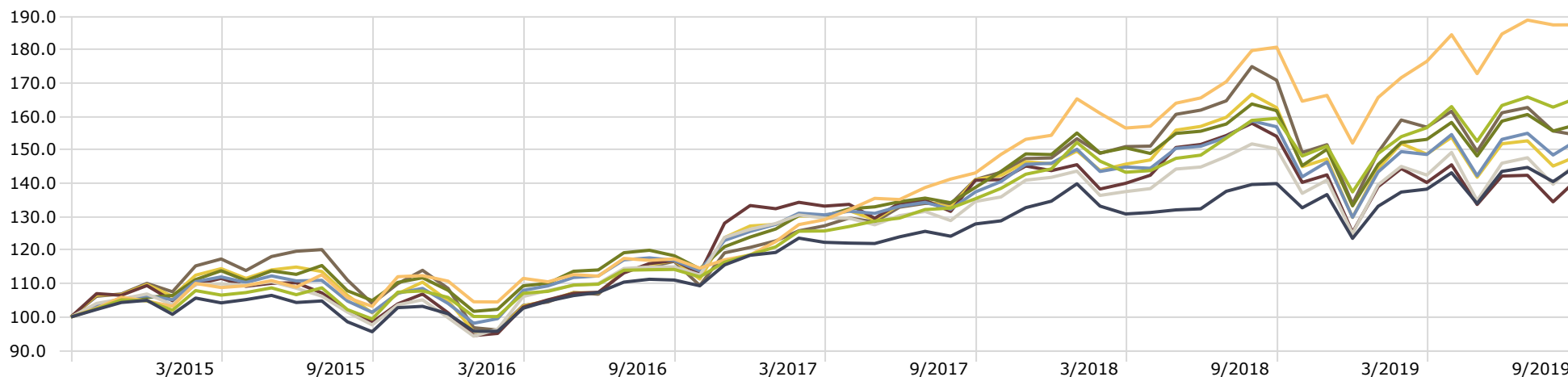
Milliman - US Equity

As of Date: 9/30/2019



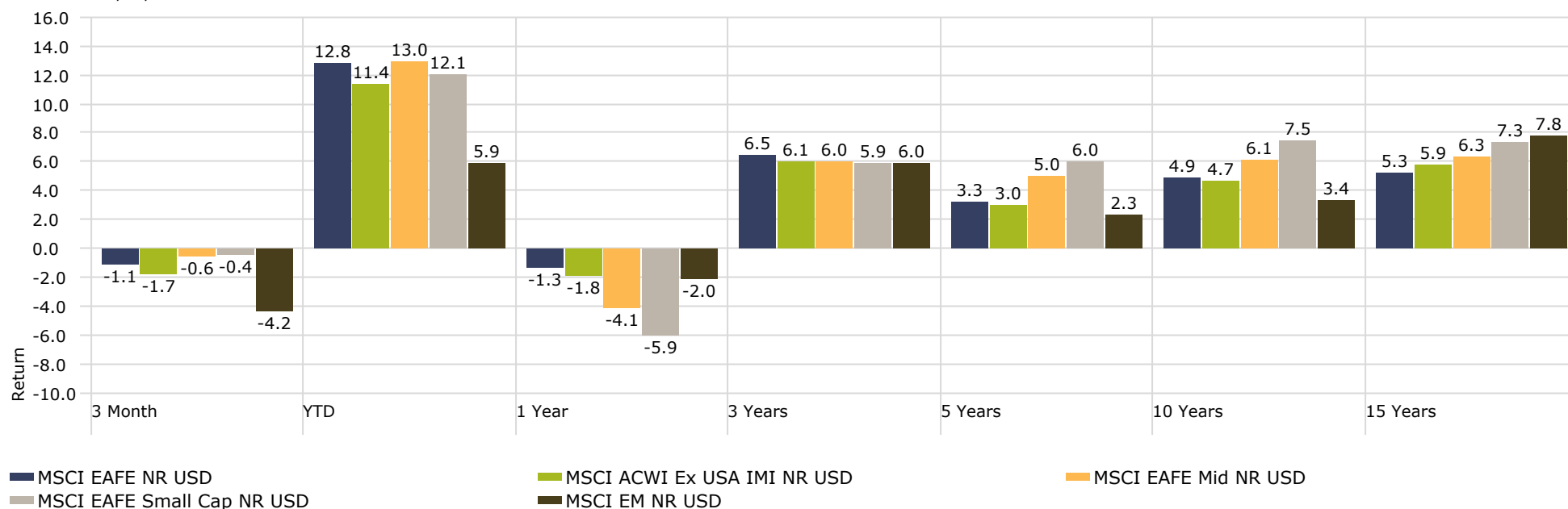
Milliman - US Equity

Time Period: 10/1/2014 to 9/30/2019



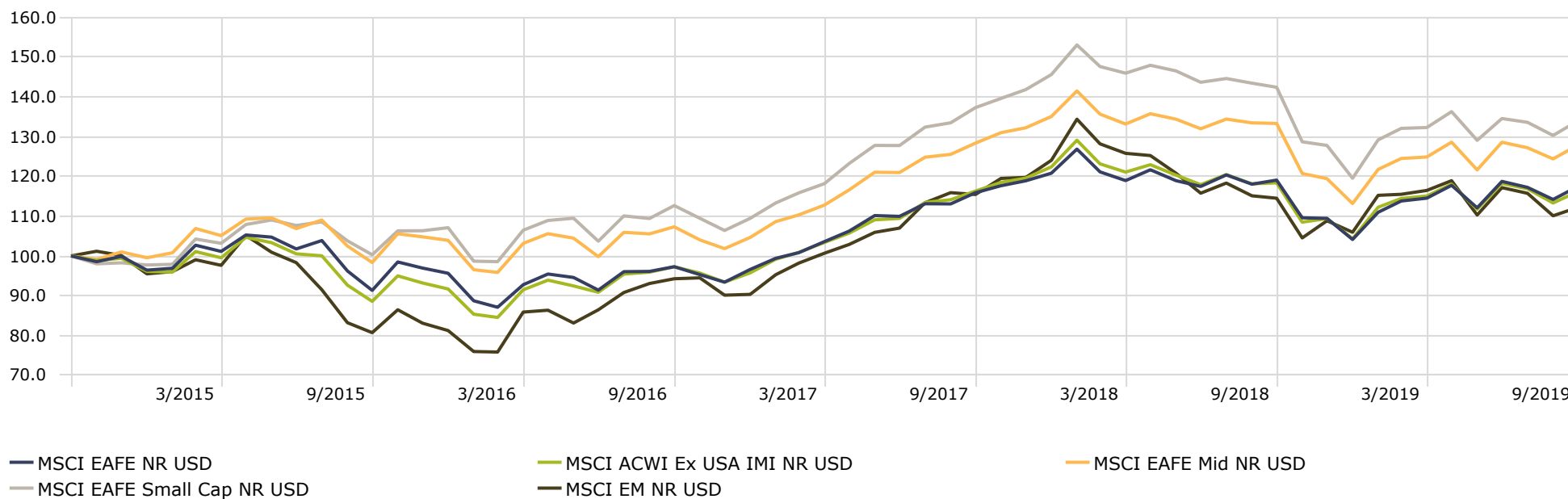
Milliman - International Equity Mkts

As of Date: 9/30/2019



Milliman - International Equity Mkts

Time Period: 10/1/2014 to 9/30/2019



Periodic Table

As of Date: 9/30/2019

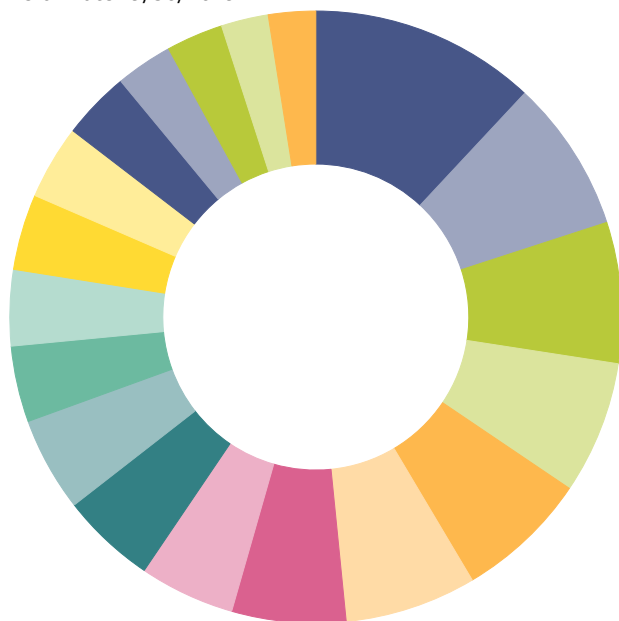
Best ↑	MSCI EM NR USD 78.5	FTSE NAREIT All Equity REITs TR USD 27.9	BBgBarc US Govt/Credit Long TR USD 22.5	FTSE NAREIT All Equity REITs TR USD 19.7	Russell 2000 TR USD 38.8	FTSE NAREIT All Equity REITs TR USD 28.0	FTSE NAREIT All Equity REITs TR USD 2.8	WTexas Crude Int Oil BL 44.8	MSCI EM NR USD 37.3	BofAML US Treasury Bill 3 Mon TR USD 1.9	FTSE NAREIT All Equity REITs TR USD 28.5
	WTexas Crude Int Oil BL 78.0	Russell 2000 TR USD 26.9	FTSE NAREIT All Equity REITs TR USD 8.3	MSCI EM NR USD 18.2	S&P MidCap 400 TR 33.5	BBgBarc US Govt/Credit Long TR USD 19.3	S&P 500 TR USD 1.4	Russell 2000 TR USD 21.3	MSCI EAFE NR USD 25.0	BBgBarc US Govt/Credit Interm TR USD 0.9	BBgBarc US Govt/Credit Long TR USD 20.9
	BBgBarc US Corporate High Yield TR USD 58.2	S&P MidCap 400 TR 26.6	WTexas Crude Int Oil BL 8.2	S&P MidCap 400 TR 17.9	S&P 500 TR USD 32.4	S&P 500 TR USD 13.7	BBgBarc US Govt/Credit Interm TR USD 1.1	S&P MidCap 400 TR 20.7	S&P 500 TR USD 21.8	BBgBarc US Corporate High Yield TR USD -2.1	S&P 500 TR USD 20.6
	S&P MidCap 400 TR 37.4	MSCI EM NR USD 18.9	BBgBarc US Govt/Credit Interm TR USD 5.8	MSCI EAFE NR USD 17.3	MSCI EAFE NR USD 22.8	S&P MidCap 400 TR 9.8	BofAML US Treasury Bill 3 Mon TR USD 0.1	BBgBarc US Corporate High Yield TR USD 17.1	S&P MidCap 400 TR 16.2	FTSE NAREIT All Equity REITs TR USD -4.0	WTexas Crude Int Oil BL 19.8
	MSCI EAFE NR USD 31.8	BBgBarc US Corporate High Yield TR USD 15.1	BBgBarc US Corporate High Yield TR USD 5.0	Russell 2000 TR USD 16.3	BBgBarc US Corporate High Yield TR USD 7.4	Russell 2000 TR USD 4.9	MSCI EAFE NR USD -0.8	S&P 500 TR USD 12.0	Russell 2000 TR USD 14.6	S&P 500 TR USD -4.4	S&P MidCap 400 TR 17.9
	FTSE NAREIT All Equity REITs TR USD 28.0	WTexas Crude Int Oil BL 15.1	S&P 500 TR USD 2.1	S&P 500 TR USD 16.0	WTexas Crude Int Oil BL 6.9	BBgBarc US Govt/Credit Interm TR USD 3.1	S&P MidCap 400 TR -2.2	MSCI EM NR USD 11.2	WTexas Crude Int Oil BL 12.5	BBgBarc US Govt/Credit Long TR USD -4.7	Russell 2000 TR USD 14.2
	Russell 2000 TR USD 27.2	S&P 500 TR USD 15.1	BofAML US Treasury Bill 3 Mon TR USD 0.1	BBgBarc US Corporate High Yield TR USD 15.8	FTSE NAREIT All Equity REITs TR USD 2.9	BBgBarc US Corporate High Yield TR USD 2.5	BBgBarc US Govt/Credit Long TR USD -3.3	FTSE NAREIT All Equity REITs TR USD 8.6	BBgBarc US Govt/Credit Long TR USD 10.7	Russell 2000 TR USD -11.0	MSCI EAFE NR USD 12.8
	S&P 500 TR USD 26.5	BBgBarc US Govt/Credit Long TR USD 10.2	S&P MidCap 400 TR -1.7	BBgBarc US Govt/Credit Long TR USD 8.8	BofAML US Treasury Bill 3 Mon TR USD 0.1	BofAML US Treasury Bill 3 Mon TR USD 0.0	Russell 2000 TR USD -4.4	BBgBarc US Govt/Credit Long TR USD 6.7	FTSE NAREIT All Equity REITs TR USD 8.7	S&P MidCap 400 TR -11.1	BBgBarc US Corporate High Yield TR USD 11.4
	BBgBarc US Govt/Credit Interm TR USD 5.2	MSCI EAFE NR USD 7.8	Russell 2000 TR USD -4.2	BBgBarc US Govt/Credit Interm TR USD 3.9	BBgBarc US Govt/Credit Interm TR USD -0.9	MSCI EM NR USD -2.2	BBgBarc US Corporate High Yield TR USD -4.5	BBgBarc US Govt/Credit Interm TR USD 2.1	BBgBarc US Corporate High Yield TR USD 7.5	MSCI EAFE NR USD -13.8	BBgBarc US Govt/Credit Interm TR USD 6.4
	BBgBarc US Govt/Credit Long TR USD 1.9	BBgBarc US Govt/Credit Interm TR USD 5.9	MSCI EAFE NR USD -12.1	BofAML US Treasury Bill 3 Mon TR USD 0.1	MSCI EM NR USD -2.6	MSCI EAFE NR USD -4.9	MSCI EM NR USD -14.9	MSCI EAFE NR USD 1.0	BBgBarc US Govt/Credit Interm TR USD 2.1	MSCI EM NR USD -14.6	MSCI EM NR USD 5.9
Worst ↓	BofAML US Treasury Bill 3 Mon TR USD 0.2	BofAML US Treasury Bill 3 Mon TR USD 0.1	MSCI EM NR USD -18.4	WTexas Crude Int Oil BL -7.1	BBgBarc US Govt/Credit Long TR USD -8.8	WTexas Crude Int Oil BL -45.6	WTexas Crude Int Oil BL -30.5	BofAML US Treasury Bill 3 Mon TR USD 0.3	BofAML US Treasury Bill 3 Mon TR USD 0.9	WTexas Crude Int Oil BL -25.3	BofAML US Treasury Bill 3 Mon TR USD 1.8
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	YTD

SECTION II - Plan Level Exhibits

CITY OF DOVER, DELAWARE POLICE PENSION PLAN

Plan Assets

As of Date: 9/30/2019



	Assets (\$)	Assets (%)
Vanguard Emerging Mkts Stock Idx Instl	1,646,805.27	11.95
Vanguard Equity-Income Adm	1,108,228.91	8.04
Vanguard PRIMECAP Core Inv	1,026,143.06	7.45
Morgan Stanley Inst Intl Advtg I	966,769.04	7.02
American Funds New Perspective R6	964,627.15	7.00
Wells Fargo Treasury Plus MMkt Inst	958,597.33	6.96
Vanguard Short-Term Bond Index Adm	829,313.26	6.02
Vanguard Real Estate Index Institutional	694,835.80	5.04
PGIM High Yield R6	689,241.39	5.00
Vanguard Inflation-Protected Secs I	686,465.78	4.98
Vanguard Mid-Cap Value Index Admiral	554,338.23	4.02
Vanguard Mid Cap Index Admiral	552,895.12	4.01
Janus Henderson Small Cap Value I	551,601.51	4.00
Federated Kaufmann Small Cap Instl	539,614.22	3.92
Vanguard Growth Index Admiral	494,635.87	3.59
Columbia Strategic Income Inst3	414,653.17	3.01
Vanguard Inter-Term Bond Index Adm	414,100.35	3.01
PIMCO Long Duration Total Return Instl	343,285.06	2.49
Vanguard Long-Term Bond Index Investor	343,176.89	2.49
Total	13,779,327.41	100.00

Plan Assets

As of Date: 6/30/2019



	Assets (\$)	Assets (%)
Vanguard Emerging Mkts Stock Idx Instl	1,675,881.41	11.91
Wells Fargo Treasury Plus MMkt Inst	1,218,052.95	8.65
Vanguard Equity-Income Adm	1,099,866.29	7.81
Vanguard PRIMECAP Core Inv	1,011,364.78	7.19
Invesco Oppenheimer International Gr R6	979,755.20	6.96
American Funds New Perspective R6	975,081.72	6.93
Vanguard Short-Term Bond Index Adm	816,763.88	5.80
PGIM High Yield R6	686,455.73	4.88
Vanguard Inflation-Protected Secs I	683,014.28	4.85
Vanguard Real Estate Index Institutional	670,624.65	4.76
Federated Kaufmann Small Cap Instl	561,764.35	3.99
PGIM QMA Small-Cap Value R6	558,066.78	3.96
Vanguard Mid-Cap Value Index Admiral	556,560.15	3.95
Vanguard Mid Cap Index Admiral	553,709.73	3.93
Vanguard Growth Index Admiral	515,127.88	3.66
Vanguard Inter-Term Bond Index Adm	411,270.47	2.92
Columbia Strategic Income Inst3	409,569.07	2.91
Vanguard Long-Term Bond Index Investor	347,510.66	2.47
PIMCO Long Duration Total Return Instl	345,576.22	2.46
Total	14,076,016.20	100.00

As of Date: 9/30/2019

Vanguard Equity-Income Adm	Vanguard PRIMECAP Core Inv	Vanguard Growth Index Admi	Large
Vanguard Mid-Cap Value Inde	Vanguard Mid Cap Index Admi		Mid
Janus Henderson Small Cap V		Federated Kaufmann Small Ca	Small
Value	Blend	Growth	

Diversified Emerging Mkts Vanguard Emerging Mkts Stoc
Foreign Large Growth Morgan Stanley Inst Intl Advt
World Large Stock American Funds New Perspect

Real Estate

Plan Style Box - Fixed Income

As of Date: 9/30/2019

Short Government	Intermediate Government	Long Government	Ultrashort Bond
Short-Term Bond Vanguard Short-Term Bond Index Adm	Intermediate Core Bond Vanguard Interm-Term Bond Index Adm	Long-Term Bond PIMCO Long Duration Total Return Instl Vanguard Long-Term Bond Index Investor	Multisector Bond
Nontraditional Bond Columbia Strategic Income Inst3	High Yield Bond PGIM High Yield R6	Inflation-Protected Bond Vanguard Inflation-Protected Secs I	Emerging Markets Bond
World Bond	Bank Loan	Diversified Emerging Mkts	Long-Only Debt
USD Government Bond	USD Diversified Bond	USD High Yield Bond	

Plan Style Box - Combined Groups

As of Date: 9/30/2019

Money Market - Taxable Wells Fargo Treasury Plus MMkt Inst			
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Manager - Investment Policy Review

		Active Fund Criteria								Index Fund Criteria					
	<u>Index Fund</u>	<u>3yr-Index</u>	<u>3yr-Peer</u>	<u>3yr-Alpha</u>	<u>3yr-Sharpe</u>	<u>5yr-Index</u>	<u>5yr-Peer</u>	<u>5yr-Alpha</u>	<u>5yr-Sharpe</u>	<u>3yr-Beta</u>	<u>3yr-TrackErr</u>	<u>5yr-Beta</u>	<u>5yr-TrackErr</u>	<u>Prospectus Net Expense Ratio</u>	<u>Mgr Rating</u>
Wells Fargo Treasury Plus MMkt Inst														0.20	
Vanguard Inflation-Protected Secs I		x	✓	✓	✓	x	✓	✓	✓					0.07	Approve
Vanguard Short-Term Bond Index Adm	Yes									✓	✓	✓	✓	0.07	-
Vanguard Interm-Term Bond Index Adm	Yes									✓	✓	✓	✓	0.07	Approve
Vanguard Long-Term Bond Index Investor	Yes									✓	✓	✓	✓	0.15	Approve
PIMCO Long Duration Total Return Instl		✓	✓	✓	x	✓	✓	✓	✓					0.97	Approve
PGIM High Yield R6		✓	✓	✓	✓	✓	✓	✓	✓					0.42	Approve
Columbia Strategic Income Inst3		✓	✓	✓	✓	✓	✓	✓	✓					0.61	Approve
Vanguard Equity-Income Adm		✓	✓	✓	✓	✓	✓	✓	✓					0.18	Approve
Vanguard PRIMECAP Core Inv		x	✓	x	✓	✓	✓	✓	✓					0.46	-
Vanguard Growth Index Admiral	Yes									✓	✓	✓	✓	0.05	Approve
Vanguard Mid-Cap Value Index Admiral	Yes									✓	✓	✓	✓	0.07	Approve
Vanguard Mid Cap Index Admiral	Yes									✓	✓	✓	✓	0.05	Approve
Janus Henderson Small Cap Value I		✓	✓	✓	✓	✓	✓	✓	✓					0.88	Approve
Federated Kaufmann Small Cap Instl		✓	✓	✓	✓									0.91	*
Morgan Stanley Inst Intl Advtg I		✓	✓	✓	✓	✓	✓	✓	✓					1.00	Approve
American Funds New Perspective R6		✓	✓	✓	✓	✓	✓	✓	✓					0.45	Approve
Vanguard Emerging Mkts Stock Idx Instl	Yes									✓	x	✓	x	0.10	-
Vanguard Real Estate Index Institutional	Yes									✓	✓	✓	✓	0.10	Approve
Police Pension Plan - Return															

Investment Policy Review Definitions

#Yr-Index - indicates whether the fund has beat its index over the time period
 #Yr-Peer - the fund return ranks in the top 1/2 of its peer group for the time period
 #Yr-Alpha - the fund Alpha is in the top 1/2 of its peer group for the time period
 #Yr-Sharpe - the fund Sharpe is in the top 1/2 of its peer group for the time period
 #Yr-Beta - the fund Beta is at or close to 1.0 for the time period
 #Yr-TrackErr - the fund Tracking Error is lower than 0.10 for the time period
 Expense - the fund Prospectus Net Expense Ratio

*Indicates that the fund has less than 5 years of data.

Plan Investment Performance

As of Date: 9/30/2019

	% Assets in Plan	Ticker	Expense Ratio	Morningstar Rating Overall	Return					% Rank Cat 3Mo	% Rank Cat 1Yr	% Rank Cat 3Yr	% Rank Cat 5Yr
					3 Month	1 Year	3 Years	5 Years	10 Years				
Money Market													
US Fund Money Market - Taxable													
Wells Fargo Treasury Plus MMkt Inst	6.96	PISXX	0.20		0.52	2.18	1.37	0.85	0.43				
ICE BofAML US 3M Trsy Bill TR USD					0.56	2.39	1.54	0.98	0.54				
Fixed Income													
US OE Inflation-Protected Bond													
Vanguard Inflation-Protected Secs I	4.98	VIPIX	0.07	★★★★	1.45	7.13	2.07	2.41	3.43	17	18	38	17
BBgBarc US Treasury US TIPS TR USD					1.35	7.13	2.21	2.45	3.46				
US OE Short-Term Bond													
Vanguard Short-Term Bond Index Adm	6.02	VBIRX	0.07	★★★	0.95	5.98	1.94	1.94	2.02	27	14	61	40
BBgBarc US 1-5Y GovCredit FIAdj TR USD					0.89	6.01	2.01	2.01	2.12				
US OE Intermediate-Term Bond													
Vanguard Interm-Term Bond Index Adm	3.01	VBILX	0.07	★★★★★	2.41	12.43	3.10	3.93	4.78	13	1	19	1
BBgBarc US 5-10Y GovCredit FIAdj TR USD					2.28	12.49	3.18	4.01	4.84				
US OE Long-Term Bond													
Vanguard Long-Term Bond Index Investor	2.49	VBLTX	0.15	★★★	6.74	21.93	5.37	6.70	7.29	4	9	68	52
PIMCO Long Duration Total Return Instl	2.49	PLRIX	0.97	★★★★	6.51	21.02	6.23	7.21	7.69	7	29	21	9
BBgBarc US L Govt/Credit FI Adj TR USD					6.59	21.88	5.56	6.81	7.42				
US OE High Yield Bond													
PGIM High Yield R6	5.00	PHYQX	0.42	★★★★★	1.61	8.11	6.85	6.09		20	7	3	2
BBgBarc High Yield Corporate TR USD					1.33	6.36	6.07	5.37	7.94				
US OE Nontraditional Bond													
Columbia Strategic Income Inst3	3.01	CPHUX	0.61	★★★★★	0.89	7.11	4.54	4.43		40	9	20	6
BBgBarc Global Aggregate TR USD					0.71	7.60	1.59	1.99	2.34				

Plan Investment Performance

As of Date: 9/30/2019

	% Assets in Plan	Ticker	Expense Ratio	Morningstar Rating Overall	Return					% Rank Cat 3Mo	% Rank Cat 1Yr	% Rank Cat 3Yr	% Rank Cat 5Yr
					3 Month	1 Year	3 Years	5 Years	10 Years				
Equity													
US OE Large Value													
Vanguard Equity-Income Adm	8.04	VEIRX	0.18	★★★★★	2.26	6.51	11.24	9.62	12.93	32	17	15	10
Russell 1000 Value TR USD					1.36	4.00	9.43	7.79	11.46				
US OE Large Blend													
Vanguard PRIMECAP Core Inv	7.45	VPCCX	0.46	★★★★	1.46	-1.06	12.95	10.81	13.56	53	85	32	14
MSCI US Prime Market 750 GR USD					1.53	4.09	13.33	10.77	13.28				
US OE Large Growth													
Vanguard Growth Index Admiral	3.59	VIGAX	0.05	★★★★	2.00	4.52	15.38	12.19	14.38	12	25	41	36
CRSP US Large Cap Growth TR USD					2.01	4.55	15.42	12.24	13.87				
US OE Mid-Cap Value													
Vanguard Mid-Cap Value Index Admiral	4.02	VMVAX	0.07	★★★★	1.88	2.30	8.83	8.37		28	21	21	16
CRSP US Mid Cap Value TR USD					1.88	2.34	8.87	8.41	12.97				
US OE Mid-Cap Blend													
Vanguard Mid Cap Index Admiral	4.01	VIMAX	0.05	★★★★★	0.61	3.65	10.67	9.20	13.05	40	20	21	15
CRSP US Mid Cap TR USD					0.62	3.70	10.70	9.24	13.14				
US OE Small Value													
Janus Henderson Small Cap Value I	4.00	JSCOX	0.88	★★★★★	1.21	1.49	8.44	8.83	10.11	22	3	8	4
Russell 2000 Value TR USD					-0.57	-8.24	6.54	7.17	10.06				
US OE Small Growth													
Federated Kaufmann Small Cap Instl	3.92	FKAIX	0.91	★★★★★	-6.38	1.91	21.16			79	6	1	
Russell 2000 Growth TR USD					-4.17	-9.63	9.79	9.08	12.25				
US OE Foreign Large Growth													
Morgan Stanley Inst Intl Advtg I	7.02	MFAIX	1.00	★★★★★	-0.63	4.90	16.41	13.47		33	16	1	1
MSCI World Large Growth NR USD					0.97	4.02	13.72	10.20	10.96				

Plan Investment Performance

As of Date: 9/30/2019

	% Assets in Plan	Ticker	Expense Ratio	Morningstar Rating Overall	Return					% Rank Cat 3Mo	% Rank Cat 1Yr	% Rank Cat 3Yr	% Rank Cat 5Yr
					3 Month	1 Year	3 Years	5 Years	10 Years				
Equity													
US OE World Large Stock													
American Funds New Perspective R6	7.00	RNPGX	0.45	★★★★★	-0.42	2.88	12.38	9.72	10.67	59	36	14	11
MSCI ACWI NR USD					-0.03	1.38	9.71	6.65	8.35				
US OE Diversified Emerging Mkts													
Vanguard Emerging Mkts Stock Idx Instl	11.95	VEMIX	0.10	★★★	-3.57	1.31	5.31	2.05	3.21	48	34	49	47
FTSE EMs AC China A Incl (US RIC) NR USD					-3.63	1.16	5.41	2.34	3.55				
US OE Real Estate													
Vanguard Real Estate Index Institutional	5.04	VGSNX	0.10	★★★★	7.42	19.92	7.10	9.96	12.91	41	26	49	36
Vanguard Real Estate Index					7.15	18.58	5.85	8.68	11.61				
Not Classified													
Miscellaneous													
Police Pension Plan - Return	—				0.64	4.84	7.47	6.69	7.11				
Dover Police Index					0.97	3.38	6.69	5.40	6.74				

Plan Risk Analytics

As of Date: 9/30/2019

	Alpha				Beta		Sharpe Ratio			
	3 Years	3 Year % Rank	5 Years	5 Year % Rank	3 Years	5 Years	3 Years	3 Year % Rank	5 Years	5 Year % Rank
Money Market										
US Fund Money Market - Taxable										
Wells Fargo Treasury Plus MMkt Inst	-0.22	17	-0.16	18	0.35	0.36	-6.98	23	-4.54	34
Fixed Income										
US OE Inflation-Protected Bond										
Vanguard Inflation-Protected Secs I	-0.13	30	-0.05	13	0.99	1.01	0.16	24	0.40	9
US OE Short-Term Bond										
Vanguard Short-Term Bond Index Adm	-0.06	62	-0.07	63	0.97	1.00	0.23	58	0.64	49
US OE Intermediate-Term Bond										
Vanguard Interm-Term Bond Index Adm	-0.08	43	-0.12	46	1.00	1.02	0.38	39	0.74	36
US OE Long-Term Bond										
Vanguard Long-Term Bond Index Investor	-0.22	93	-0.22	91	1.01	1.02	0.45	89	0.67	79
PIMCO Long Duration Total Return Instl	0.78	52	0.55	42	0.96	0.97	0.57	55	0.76	46
US OE High Yield Bond										
PGIM High Yield R6	0.70	9	0.98	6	1.01	0.93	1.22	7	1.00	8
US OE Nontraditional Bond										
Columbia Strategic Income Inst3	2.86	20	3.09	9	0.26	0.27	1.12	26	1.03	16
Equity										
US OE Large Value										
Vanguard Equity-Income Adm	2.52	12	2.41	8	0.88	0.88	0.88	11	0.81	7
US OE Large Blend										
Vanguard PRIMECAP Core Inv	-1.48	54	-0.56	34	1.12	1.08	0.82	54	0.76	36
US OE Large Growth										
Vanguard Growth Index Admiral	-0.02	43	-0.03	36	1.00	1.00	1.03	35	0.87	29
US OE Mid-Cap Value										
Vanguard Mid-Cap Value Index Admiral	-0.03	24	-0.03	20	1.00	1.00	0.57	20	0.61	13

Plan Risk Analytics

As of Date: 9/30/2019

	Alpha				Beta		Sharpe Ratio			
	3 Years	3 Year % Rank	5 Years	5 Year % Rank	3 Years	5 Years	3 Years	3 Year % Rank	5 Years	5 Year % Rank
Equity										
US OE Mid-Cap Blend										
Vanguard Mid Cap Index Admiral	-0.03	20	-0.03	12	1.00	1.00	0.71	16	0.67	12
US OE Small Value										
Janus Henderson Small Cap Value I	2.66	6	2.69	5	0.77	0.78	0.54	5	0.64	4
US OE Small Growth										
Federated Kaufmann Small Cap Instl	11.07	1			0.86		1.17	1		
US OE Foreign Large Growth										
Morgan Stanley Inst Intl Advtg I	4.55	1	4.51	1	0.82	0.83	1.20	1	1.04	1
US OE World Large Stock										
American Funds New Perspective R6	2.36	15	2.97	14	1.02	0.98	0.90	14	0.75	13
US OE Diversified Emerging Mkts										
Vanguard Emerging Mkts Stock Idx Instl	-0.12	50	-0.27	53	1.01	0.98	0.33	46	0.14	51
US OE Real Estate										
Vanguard Real Estate Index Institutional	1.17	50	1.16	46	1.00	1.00	0.47	49	0.66	44
Not Classified										
Miscellaneous										
Police Pension Plan - Return	0.68	1	1.17	1	1.01	1.01	0.73	1	0.71	1

Plan Risk Analytics

As of Date: 9/30/2019

	Std Dev		Sortino Ratio		Information Ratio (arith)		Up Capture Ratio		Down Capture Ratio	
	3 Years	5 Years	3 Years	5 Years	3 Years	5 Years	3 Years	Peer group percentile	3 Years	Peer group percentile
Money Market										
US Fund Money Market - Taxable										
Wells Fargo Treasury Plus MMkt Inst	0.21	0.24	-3.11	-2.76	-3.50	-2.82	88.90	17		
Fixed Income										
US OE Inflation-Protected Bond										
Vanguard Inflation-Protected Secs I	3.27	3.57	0.22	0.67	-0.40	-0.09	98.16	11	100.96	71
US OE Short-Term Bond										
Vanguard Short-Term Bond Index Adm	1.51	1.47	0.36	1.16	-0.38	-0.39	96.44	16	96.06	87
US OE Intermediate-Term Bond										
Vanguard Interm-Term Bond Index Adm	4.07	3.98	0.58	1.28	-0.30	-0.22	98.84	1	100.01	98
US OE Long-Term Bond										
Vanguard Long-Term Bond Index Investor	8.90	8.73	0.74	1.15	-0.31	-0.15	98.97	18	100.40	96
PIMCO Long Duration Total Return Instl	8.49	8.30	0.91	1.30	0.66	0.37	99.59	4	92.11	79
US OE High Yield Bond										
PGIM High Yield R6	4.20	5.02	2.55	1.94	1.12	0.81	106.35	5	93.34	35
US OE Nontraditional Bond										
Columbia Strategic Income Inst3	2.58	3.29	2.15	2.04	0.72	0.55	49.25	11	-16.33	57
Equity										
US OE Large Value										
Vanguard Equity-Income Adm	11.00	10.77	1.31	1.29	0.71	0.67	95.59	66	78.83	13
US OE Large Blend										
Vanguard PRIMECAP Core Inv	14.17	13.41	1.19	1.17	-0.10	0.01	107.87	2	119.09	93
US OE Large Growth										
Vanguard Growth Index Admiral	13.27	13.03	1.56	1.41	-1.25	-1.61	99.88	37	100.00	57

Plan Risk Analytics

As of Date: 9/30/2019

	Std Dev		Sortino Ratio		Information Ratio (arith)		Up Capture Ratio		Down Capture Ratio	
	3 Years	5 Years	3 Years	5 Years	3 Years	5 Years	3 Years	Peer group percentile	3 Years	Peer group percentile
Equity										
US OE Mid-Cap Value										
Vanguard Mid-Cap Value Index Admiral	13.75	12.88	0.83	0.92	-1.13	-1.20	99.81	47	99.97	29
US OE Mid-Cap Blend										
Vanguard Mid Cap Index Admiral	13.30	12.77	1.03	1.01	-1.50	-1.66	99.94	41	100.12	28
US OE Small Value										
Janus Henderson Small Cap Value I	13.93	12.95	0.81	1.00	0.36	0.34	83.21	89	69.52	3
US OE Small Growth										
Federated Kaufmann Small Cap Instl	16.27		1.90		1.68		116.36	9	69.27	4
US OE Foreign Large Growth										
Morgan Stanley Inst Intl Advtg I	11.99	11.87	1.99	1.83	0.38	0.51	94.13	4	66.30	1
US OE World Large Stock										
American Funds New Perspective R6	11.98	11.92	1.40	1.20	0.82	1.01	107.82	20	92.15	34
US OE Diversified Emerging Mkts										
Vanguard Emerging Mkts Stock Idx Instl	13.34	15.06	0.51	0.22	-0.07	-0.15	100.28	47	100.98	53
US OE Real Estate										
Vanguard Real Estate Index Institutional	12.88	14.31	0.73	1.14	5.48	5.15	103.76	15	96.57	78
Not Classified										
Miscellaneous										
Police Pension Plan - Return	8.06	8.14	1.07	1.11	0.98	1.50	105.89	1	100.96	1

SECTION III - Investment Detail Pages

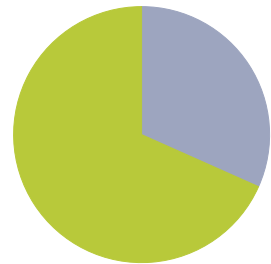
Wells Fargo Treasury Plus MMkt Inst

PISXX



Wells Fargo Treasury Plus MMkt Inst - Asset Allocation

Portfolio Date: 9/30/2019



• Stock	0.0
• Bond	31.7
• Cash	68.3
• Other	0.0
Total	100.0

Key Information

Name	Wells Fargo Treasury Plus MMkt Inst
% Morningstar Category	US Fund Money Market - Taxable
Firm Name	Wells Fargo Funds
Advisor	Wells Fargo Funds Management LLC
Manager Name	Management Team
Inception Date	10/1/1985
Firm Web Address	https://www.wellsfargofunds.com/

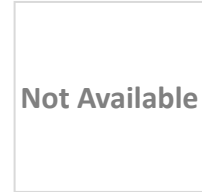
Investment Strategy

The investment seeks current income, while preserving capital and liquidity. The fund invests exclusively in high-quality, short-term, U.S. dollar-denominated money market instruments that consist of U.S. Treasury obligations and repurchase agreements collateralized by U.S. Treasury obligations. The security selection is based on several factors, including credit quality, yield and maturity, while taking into account the fund's overall level of liquidity and weighted average maturity.

Style Allocation

Portfolio Date: 9/30/2019

Morningstar Fixed Income Style Box™



Fixed-Income Stats

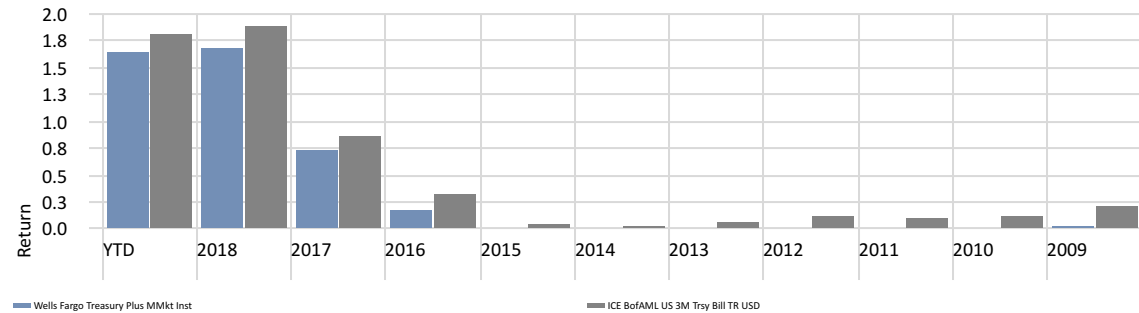
Average Eff Duration	-
Average Eff Maturity	-
Average Coupon	-
Average Price	-

Key Statistics

Arithmetic Mean 3 Yr (Qtr-End)	0.11
Std Dev 3 Yr (Qtr-End)	0.21
Alpha 3 Yr (Qtr-End)	-
Sharpe Ratio 3 Yr (Qtr-End)	-6.98
Arithmetic Mean 5 Yr (Qtr-End)	0.07
Std Dev 5 Yr (Qtr-End)	0.24
Alpha 5 Yr (Qtr-End)	-
Sharpe Ratio 5 Yr (Qtr-End)	-4.54

Returns

Calculation Benchmark: ICE BofAML US 3M Trsy Bill TR USD

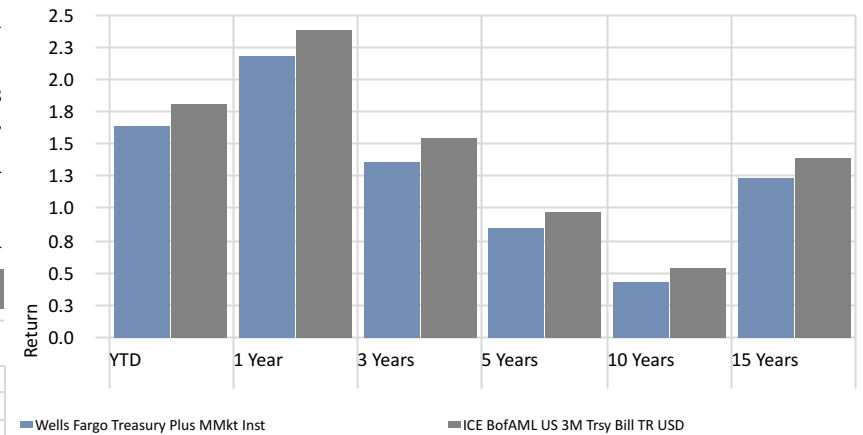


As of Date: 9/30/2019 Calculation Benchmark: ICE BofAML US 3M Trsy Bill TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Wells Fargo Treasury Plus MMkt Inst	1.64	1.68	0.72	0.18	0.01	0.01	0.01	0.01	0.01	0.01	0.04
ICE BofAML US 3M Trsy Bill TR USD	1.81	1.87	0.86	0.33	0.05	0.03	0.07	0.11	0.10	0.13	0.21

Returns

Calculation Benchmark: ICE BofAML US 3M Trsy Bill TR USD

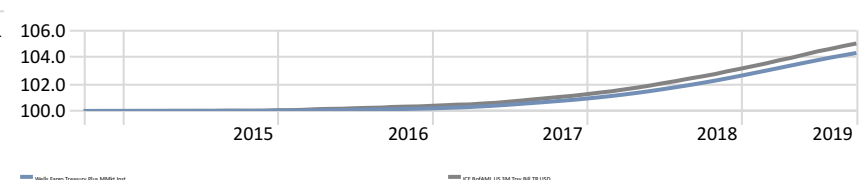


As of Date: 9/30/2019

	YTD	3 months	1 year	3 years	5 years	10 years	15 years
Wells Fargo Treasury Plus MMkt Inst	1.64	0.52	2.18	1.37	0.85	0.43	1.25
ICE BofAML US 3M Trsy Bill TR USD	1.81	0.56	2.39	1.54	0.98	0.54	1.39

Investment Growth

Time Period: 10/1/2014 to 9/30/2019



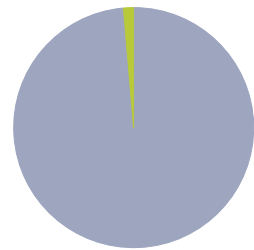
Vanguard Inflation-Protected Secs I

VIPIX



Asset Allocation

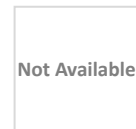
Portfolio Date: 9/30/2019



Stock	0.0
Bond	98.6
Cash	1.4
Other	0.0
Total	100.0

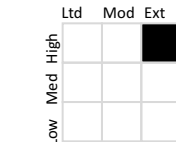
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %		
Consumer Cyclical %		
Financial Services %		
Real Estate %		
Consumer Defensive %		
Healthcare %		
Utilities %		
Communication Services %		
Energy %		
Industrials %		
Technology %		

Credit Quality

Avg Eff Duration	7.8
Avg Eff Maturity	8.6
Avg Cred Qual	AAA
Cred Qual AAA%	100.0
Cred Qual AA%	0.0
Cred Qual A%	0.0
Credit Qual BBB %	0.00
Credit Qual BB %	0.00
Credit Qual B %	0.00
Credit Qual Below B %	0.00

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
United States Treasury Notes 0.12%		1,086		3.90%
United States Treasury Notes 0.12%		1,006		3.61%
United States Treasury Notes 0.62%		1,002		3.60%
United States Treasury Notes 0.62%		1,000		3.59%
United States Treasury Notes 0.38%		988		3.55%
United States Treasury Notes 0.38%		974		3.50%
United States Treasury Notes 0.25%		973		3.50%
United States Treasury Notes 0.12%		969		3.48%
United States Treasury Notes 0.12%		950		3.41%
United States Treasury Notes 0.62%		892		3.20%
Turnover Ratio %			27.00	
% Asset in Top 10 Holdings				35.35

Key Information

Ticker	VIPIX
Morningstar Category	US Fund Inflation-Protected Bond
Firm Name	Vanguard
Advisor	Vanguard Group Inc
Manager Name	Gemma Wright-Casparius
Inception Date	12/12/2003
Fund Size (Mil)	28,255.15
Prospectus Net Expense Ratio	0.07
Firm Name	Vanguard
Web Address	www.vanguard.com

Key Information

Morningstar Rating Overall	★★★★
Morningstar Rating 3 Yr	★★★
Morningstar Return % Rank Cat 3 Yr	37
Morningstar Rating 5 Yr	★★★★
Morningstar Return % Rank Cat 5 Yr	16
Morningstar Rating 10 Yr	★★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	14

Key Statistics

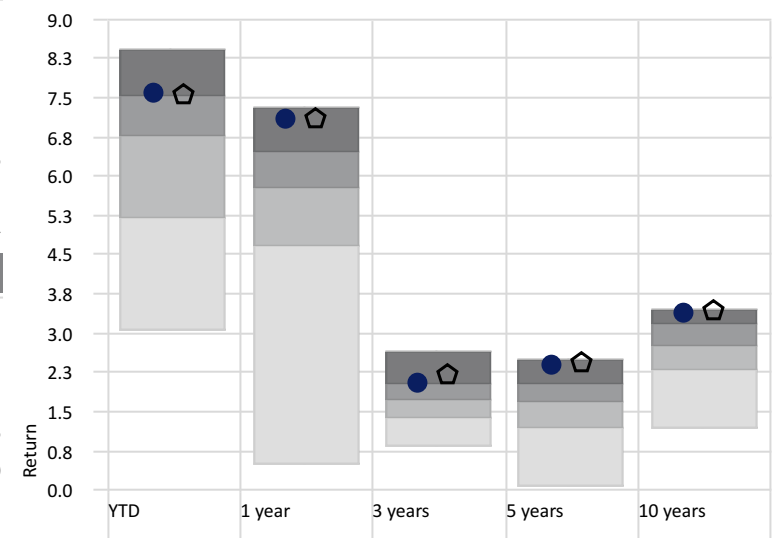
Arithmetic Mean 3 Yr (Mo-End)	0.18
Std Dev 3 Yr (Mo-End)	3.28
Alpha 3 Yr (Mo-End)	-0.67
Sharpe Ratio 3 Yr (Mo-End)	0.16
Arithmetic Mean 5 Yr (Mo-End)	0.20
Std Dev 5 Yr (Mo-End)	3.57
Alpha 5 Yr (Mo-End)	-0.91
Sharpe Ratio 5 Yr (Mo-End)	0.40

Investment Strategy

The investment seeks to provide inflation protection and income consistent with investment in inflation-indexed securities. The fund invests at least 80% of its assets in inflation-indexed bonds issued by the U.S. government, its agencies and instrumentalities, and corporations. It may invest in bonds of any maturity; however, its dollar-weighted average maturity is expected to be in the range of 7 to 20 years. At a minimum, all bonds purchased by the fund will be rated investment-grade or, if unrated, will be considered by the advisor to be investment-grade.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Infl Adj Bond

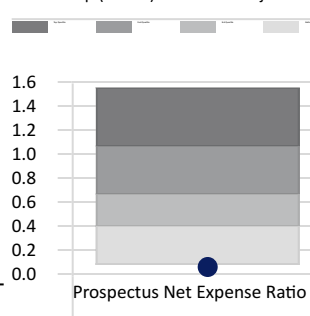


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Vanguard Inflation-Protected Secs I	7.63	7.13	2.07	2.41	3.43
BBgBarc US Treasury US TIPS TR USD	7.58	7.13	2.21	2.45	3.46
Median	6.77	5.76	1.73	1.71	2.78
5th Percentile	8.42	7.32	2.64	2.47	3.46
25th Percentile	7.53	6.48	2.04	2.03	3.17
50th Percentile	6.77	5.76	1.73	1.71	2.78
75th Percentile	5.21	4.68	1.40	1.20	2.32
95th Percentile	3.05	0.52	0.86	0.10	1.18

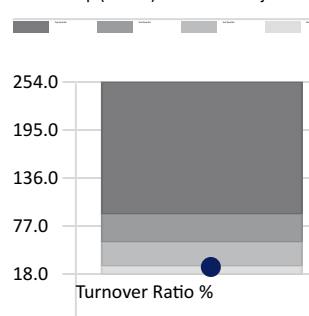
Expense vs Peer Group

Peer Group (5-95%): US OE Infl Adj Bond



Turnover vs Peer Group

Peer Group (5-95%): US OE Infl Adj Bond



Vanguard Inflation-Protected Secs I

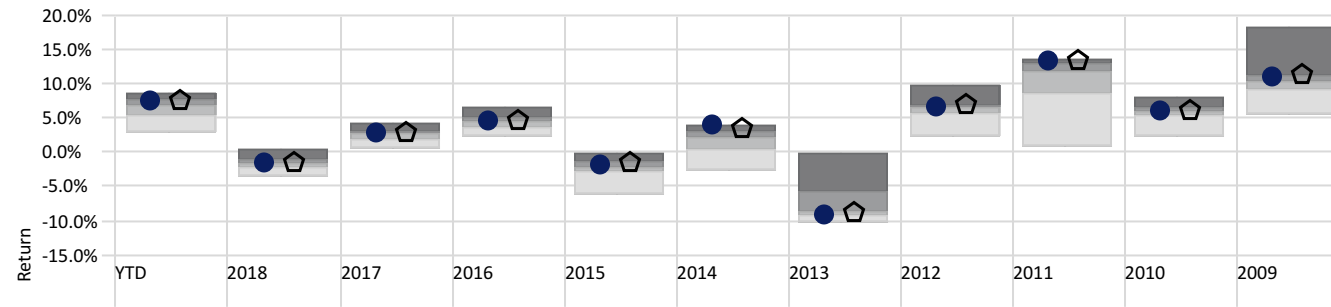
VIPIX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Infl Adj Bond Calculation Benchmark: BBgBarc US Treasury US TIPS TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



Vanguard Inflation-Protected Secs I

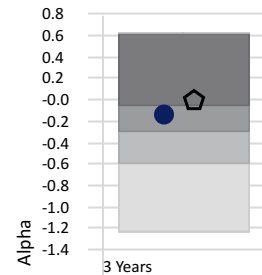
BBgBarc US Treasury US TIPS TR USD

As of Date: 9/30/2019 Calculation Benchmark: BBgBarc US Treasury US TIPS TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Vanguard Inflation-Protected Secs I	7.63	-1.40	2.97	4.63	-1.67	4.07	-8.83	6.87	13.39	6.33	11.03
BBgBarc US Treasury US TIPS TR USD	7.58	-1.26	3.01	4.68	-1.44	3.64	-8.61	6.98	13.56	6.31	11.41
Count	212	201	187	178	156	149	144	131	124	103	99
25th Percentile	7.53	-1.04	3.07	4.93	-1.30	2.98	-5.66	6.91	12.82	6.42	11.17
50th Percentile	6.77	-1.63	2.57	4.37	-2.14	2.22	-8.70	6.51	11.84	5.88	10.28
75th Percentile	5.21	-2.23	1.72	3.57	-2.88	0.23	-9.13	5.70	8.55	5.21	9.19

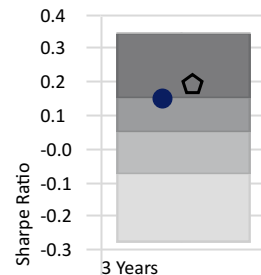
3 Yr Alpha

Peer Group (5-95%): US OE Infl Adj Bond



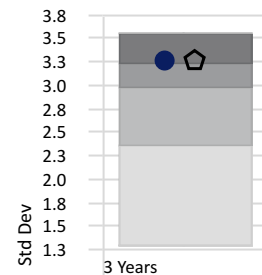
3 Yr Sharpe

Peer Group (5-95%): US OE Infl Adj Bond



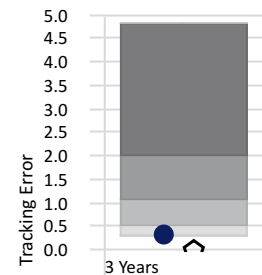
3 Yr Std Deviation

Peer Group (5-95%): US OE Infl Adj Bond



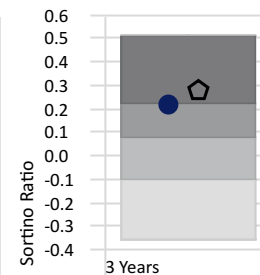
3 Yr Tracking Error

Peer Group (5-95%): US OE Infl Adj Bond



3 Yr Sortino

Peer Group (5-95%): US OE Infl Adj Bond



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years

US OE Inflation-Protected Bond

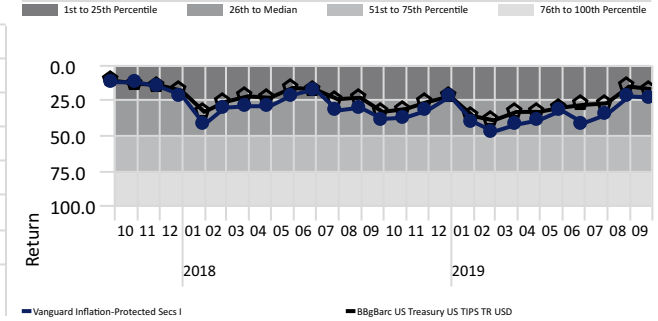
Vanguard Inflation-Protected Secs I	3.27	0.16	-0.13	0.99	0.22	-0.40	41.67	0.35
BBgBarc US Treasury US TIPS TR USD	3.28	0.20			0.29			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

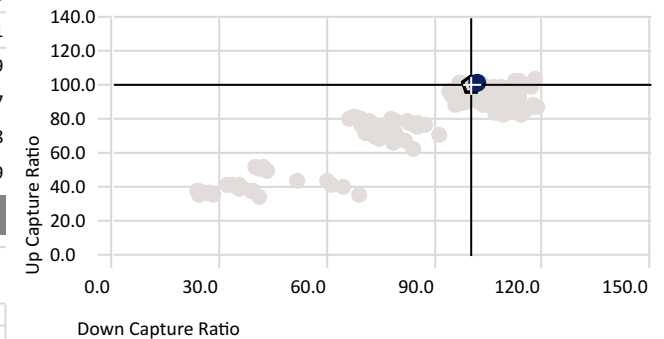
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: BBgBarc US Treasury US TIPS TR USD



Up/Down Market Capture Ratio

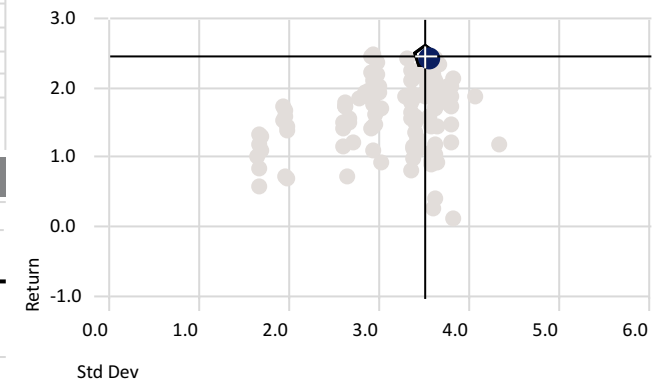
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: BBgBarc US Treasury US TIPS TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



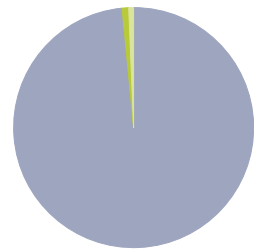
Vanguard Short-Term Bond Index Adm

VBIRX



Asset Allocation

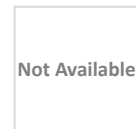
Portfolio Date: 9/30/2019



• Stock	0.0	%
• Bond	98.5	
• Cash	0.9	
• Other	0.7	
Total	100.0	

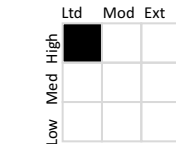
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	0.0	
Consumer Cyclical %	0.0	
Financial Services %	100.0	
Real Estate %	0.0	
Consumer Defensive %	0.0	
Healthcare %	0.0	
Utilities %	0.0	
Communication Services %	0.0	
Energy %	0.0	
Industrials %	0.0	
Technology %	0.0	

Credit Quality

Avg Eff Duration	2.7
Avg Eff Maturity	2.8
Avg Cred Qual	AA
Cred Qual AAA%	71.0
Cred Qual AA%	4.4
Cred Qual A%	11.3
Credit Qual BBB %	13.35
Credit Qual BB %	0.00
Credit Qual B %	0.00
Credit Qual Below B %	0.00

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
United States Treasury Notes 1.25%		1,076		2.23%
United States Treasury Notes 1.25%		863		1.79%
United States Treasury Notes 1.12%		607		1.26%
United States Treasury Notes 1.12%		543		1.13%
United States Treasury Notes 2.12%		531		1.10%
United States Treasury Notes 1.38%		511		1.06%
United States Treasury Notes 1.38%		503		1.04%
United States Treasury Notes 2.62%		495		1.02%
United States Treasury Notes 2.75%		487		1.01%
United States Treasury Notes 1.88%		482		1.00%
Turnover Ratio %			48.00	
% Asset in Top 10 Holdings			12.64	

Key Information

Ticker	VBIRX
Morningstar Category	US Fund Short-Term Bond
Firm Name	Vanguard
Advisor	Vanguard Group Inc
Manager Name	Joshua C. Barrickman
Inception Date	11/12/2001
Fund Size (Mil)	48,182.60
Prospectus Net Expense Ratio	0.07
Firm Name	Vanguard
Web Address	www.vanguard.com

Key Information

Morningstar Rating Overall	★★★
Morningstar Rating 3 Yr	★★★
Morningstar Return % Rank Cat 3 Yr	61
Morningstar Rating 5 Yr	★★★
Morningstar Return % Rank Cat 5 Yr	40
Morningstar Rating 10 Yr	★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	57

Key Statistics

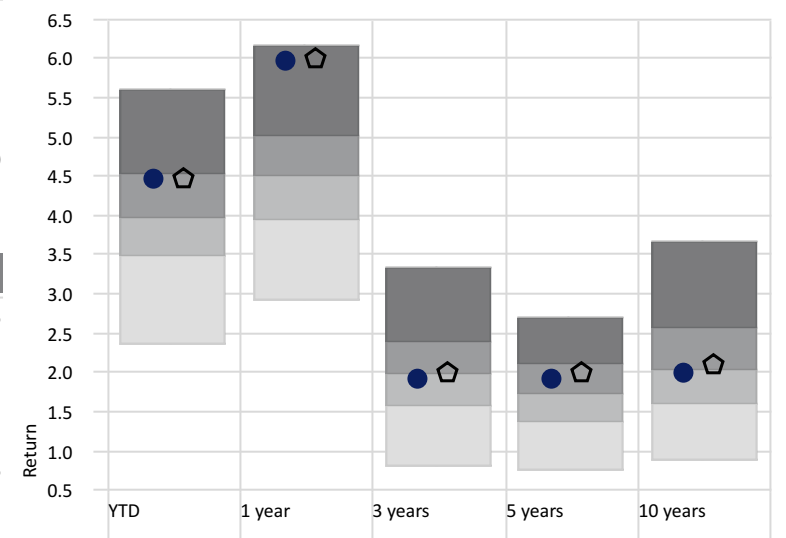
Arithmetic Mean 3 Yr (Mo-End)	0.16
Std Dev 3 Yr (Mo-End)	1.51
Alpha 3 Yr (Mo-End)	-0.23
Sharpe Ratio 3 Yr (Mo-End)	0.23
Arithmetic Mean 5 Yr (Mo-End)	0.16
Std Dev 5 Yr (Mo-End)	1.47
Alpha 5 Yr (Mo-End)	-0.11
Sharpe Ratio 5 Yr (Mo-End)	0.64

Investment Strategy

The investment seeks to track the performance of Bloomberg Barclays U.S. 1-5 Year Government/Credit Float Adjusted Index. Bloomberg Barclays U.S. 1-5 Year Government/Credit Float Adjusted Index includes all medium and larger issues of U.S. government, investment-grade corporate, and investment-grade international dollar-denominated bonds that have maturities between 1 and 5 years and are publicly issued. All of its investments will be selected through the sampling process, and at least 80% of its assets will be invested in bonds held in the index.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Short Term Bond

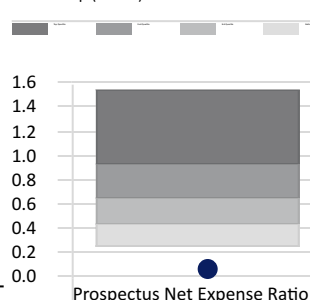


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Vanguard Short-Term Bond Index Adm	4.47	5.98	1.94	1.94	2.02
BBgBarc US 1-5Y GovCredit FIAAdj TR USD	4.48	6.01	2.01	2.01	2.12
Median	3.98	4.51	1.98	1.74	2.04
5th Percentile	5.60	6.16	3.32	2.70	3.67
25th Percentile	4.52	5.00	2.39	2.10	2.57
50th Percentile	3.98	4.51	1.98	1.74	2.04
75th Percentile	3.48	3.96	1.57	1.37	1.60
95th Percentile	2.38	2.91	0.81	0.75	0.89

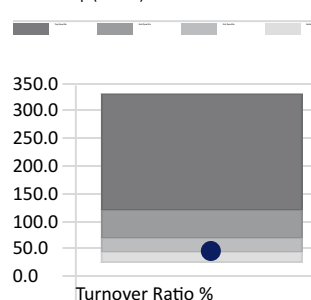
Expense vs Peer Group

Peer Group (5-95%): US OE Short Term Bond



Turnover vs Peer Group

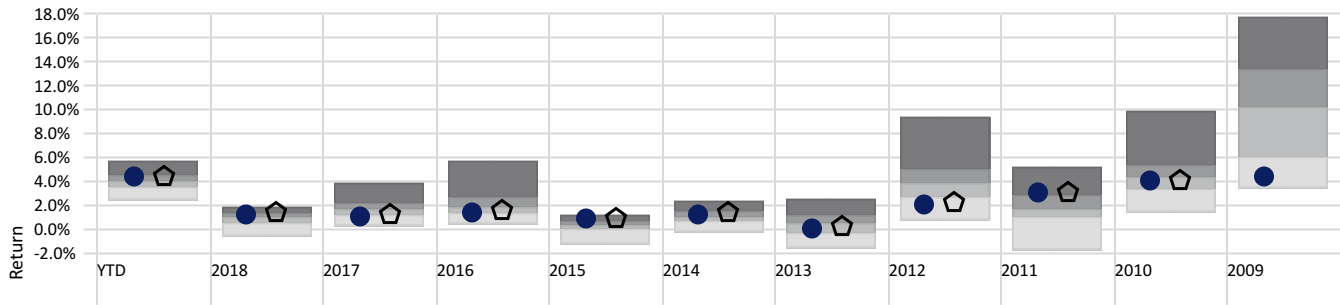
Peer Group (5-95%): US OE Short Term Bond



Performance Relative to Peer Group

Peer Group (5-95%): US OE Short Term Bond Calculation Benchmark: BBgBarc US 1-5Y GovCredit FIAdj TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



Vanguard Short-Term Bond Index Adm

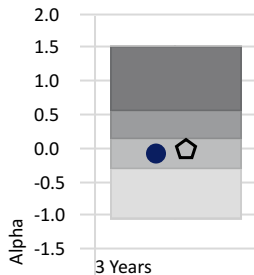
BBgBarc US 1-5Y GovCredit FIAdj TR USD

As of Date: 9/30/2019 Calculation Benchmark: BBgBarc US 1-5Y GovCredit FIAdj TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Vanguard Short-Term Bond Index Adm	4.47	1.35	1.18	1.49	0.92	1.26	0.17	2.05	3.08	4.03	4.38
BBgBarc US 1-5Y GovCredit FIAdj TR USD	4.48	1.38	1.27	1.57	0.97	1.43	0.29	2.24	3.13	4.08	
Count	546	507	473	457	427	396	370	320	304	284	268
25th Percentile	4.52	1.28	2.17	2.65	0.66	1.45	1.14	5.00	2.71	5.35	13.35
50th Percentile	3.98	0.94	1.54	1.80	0.32	0.94	0.39	3.86	1.67	4.23	10.10
75th Percentile	3.48	0.41	1.08	1.25	-0.12	0.55	-0.33	2.62	0.99	3.26	6.00

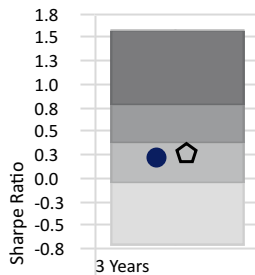
3 Yr Alpha

Peer Group (5-95%): US OE Short Term Bond



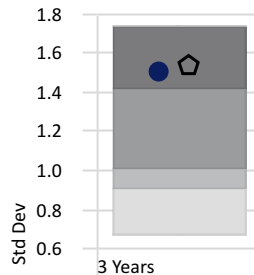
3 Yr Sharpe

Peer Group (5-95%): US OE Short Term Bond



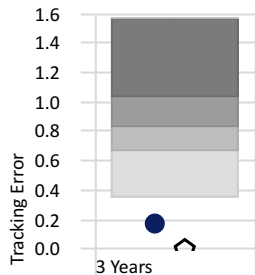
3 Yr Std Deviation

Peer Group (5-95%): US OE Short Term Bond



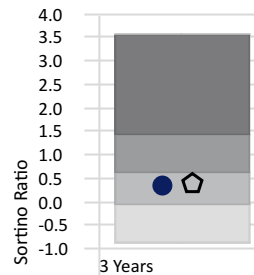
3 Yr Tracking Error

Peer Group (5-95%): US OE Short Term Bond



3 Yr Sortino

Peer Group (5-95%): US OE Short Term Bond



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Vanguard Short-Term Bond Index Adm	1.51	0.23	-0.06	0.97	0.36	-0.38	44.44	0.18
BBgBarc US 1-5Y GovCredit FIAdj TR USD	1.54	0.27			0.43			

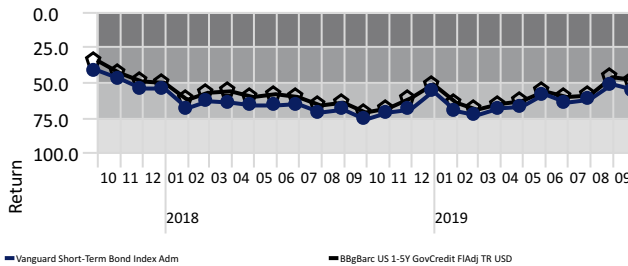
Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

Rolling Window: 3 Years 1 Month shift Calculation Benchmark: BBgBarc US 1-5Y GovCredit FIAdj TR USD

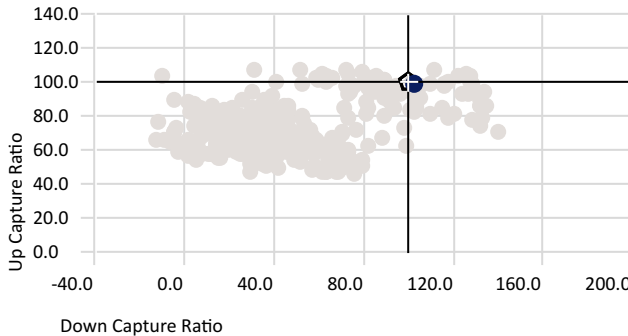
1st to 25th Percentile 26th to Median 51st to 75th Percentile 76th to 100th Percentile



Up/Down Market Capture Ratio

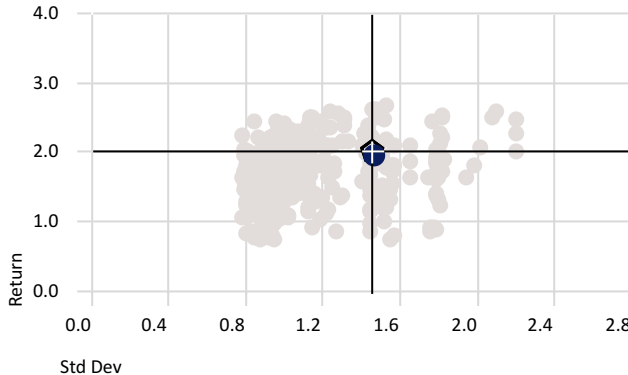
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: BBgBarc US 1-5Y GovCredit FIAdj TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



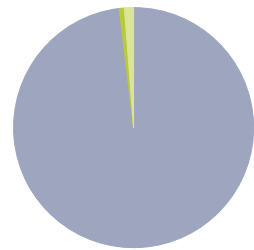
Vanguard Interm-Term Bond Index Adm

VBILX



Asset Allocation

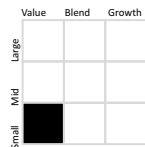
Portfolio Date: 9/30/2019



Stock	0.0	%
Bond	98.1	%
Cash	0.7	%
Other	1.2	%
Total	100.0	

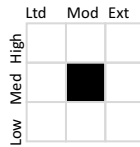
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	0.0	
Consumer Cyclical %	0.0	
Financial Services %	0.0	
Real Estate %	0.0	
Consumer Defensive %	0.0	
Healthcare %	100.0	
Utilities %	0.0	
Communication Services %	0.0	
Energy %	0.0	
Industrials %	0.0	
Technology %	0.0	

Credit Quality

Avg Eff Duration	6.3
Avg Eff Maturity	7.3
Avg Cred Qual	A
Cred Qual AAA%	56.2
Cred Qual AA%	2.9
Cred Qual A%	16.2
Credit Qual BBB %	24.74
Credit Qual BB %	0.00
Credit Qual B %	0.00
Credit Qual Below B %	0.00

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
United States Treasury Notes 3.12%		876		2.56%
United States Treasury Notes 1.62%		769		2.25%
United States Treasury Notes 2.38%		725		2.12%
United States Treasury Notes 2.25%		709		2.07%
United States Treasury Notes 2.62%		689		2.01%
United States Treasury Notes 1.62%		653		1.91%
United States Treasury Notes 2.88%		645		1.88%
United States Treasury Notes 2.38%		636		1.86%
United States Treasury Notes 2.88%		607		1.77%
United States Treasury Notes 2%		605		1.77%
Turnover Ratio %			53.00	
% Asset in Top 10 Holdings			20.20	

Source: Morningstar Direct

Key Information

Ticker	VBILX
Morningstar Category	US Fund Intermediate Core Bond
Firm Name	Vanguard
Advisor	Vanguard Group Inc
Manager Name	Joshua C. Barrickman
Inception Date	11/12/2001
Fund Size (Mil)	34,291.31
Prospectus Net Expense Ratio	0.07
Firm Name	Vanguard
Web Address	www.vanguard.com

Key Information

Morningstar Rating Overall	★★★★★
Morningstar Rating 3 Yr	★★★★
Morningstar Return % Rank Cat 3 Yr	19
Morningstar Rating 5 Yr	★★★★★
Morningstar Return % Rank Cat 5 Yr	1
Morningstar Rating 10 Yr	★★★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	4

Key Statistics

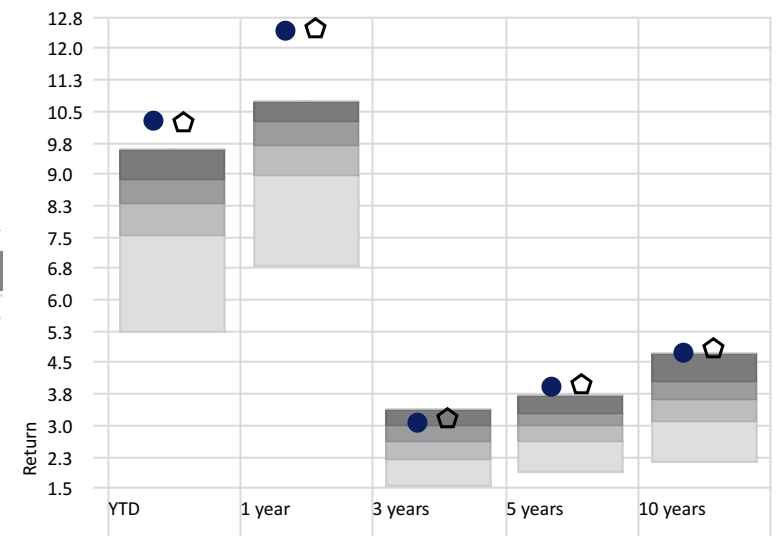
Arithmetic Mean 3 Yr (Mo-End)	0.26
Std Dev 3 Yr (Mo-End)	4.07
Alpha 3 Yr (Mo-End)	-0.07
Sharpe Ratio 3 Yr (Mo-End)	0.38
Arithmetic Mean 5 Yr (Mo-End)	0.33
Std Dev 5 Yr (Mo-End)	3.98
Alpha 5 Yr (Mo-End)	-0.08
Sharpe Ratio 5 Yr (Mo-End)	0.74

Investment Strategy

The investment seeks the performance of the Bloomberg Barclays U.S. 5-10 Year Government/Credit Float Adjusted Index. Bloomberg Barclays U.S. 5-10 Year Government/Credit Float Adjusted Index includes all medium and larger issues of U.S. government, investment-grade corporate and investment-grade international dollar-denominated bonds that have maturities between 5 and 10 years and are publicly issued. All of its investments will be selected through the sampling process, and at least 80% of its assets will be invested in bonds held in the index.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Intermediate Term Bond

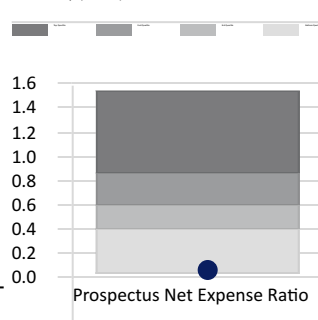


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Vanguard Interm-Term Bond Index Adm	10.28	12.43	3.10	3.93	4.78
BBgBarc US 5-10Y GovCredit FIAAdj TR USD	10.23	12.49	3.18	4.01	4.84
Median	8.31	9.69	2.62	2.98	3.61
5th Percentile	9.57	10.73	3.40	3.73	4.70
25th Percentile	8.87	10.25	3.00	3.28	4.02
50th Percentile	8.31	9.69	2.62	2.98	3.61
75th Percentile	7.52	8.95	2.20	2.60	3.08
95th Percentile	5.25	6.83	1.56	1.90	2.11

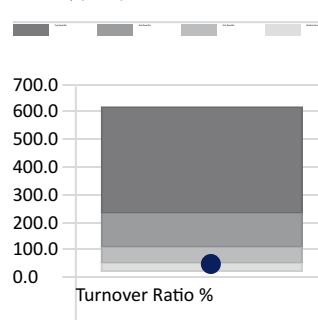
Expense vs Peer Group

Peer Group (5-95%): US OE Intermediate Term Bond



Turnover vs Peer Group

Peer Group (5-95%): US OE Intermediate Term Bond



Vanguard Interm-Term Bond Index Adm

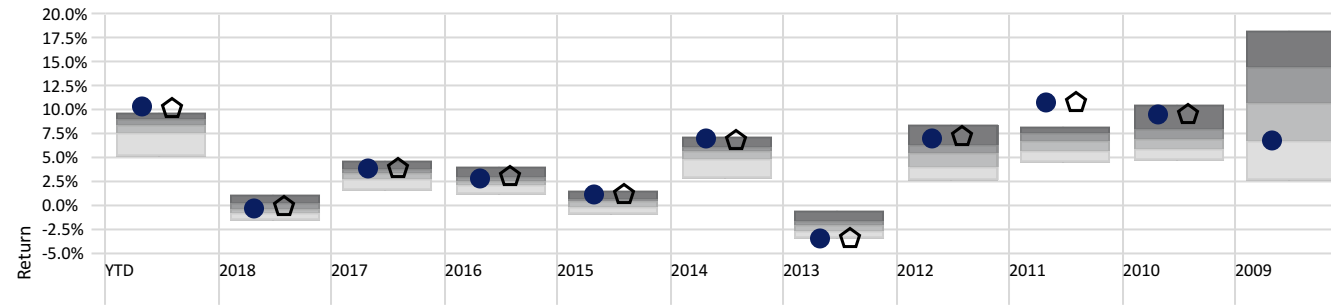
VBILX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Intermediate Term Bond Calculation Benchmark: BBgBarc US 5-10Y GovCredit FIAdj TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



● Vanguard Interm-Term Bond Index Adm

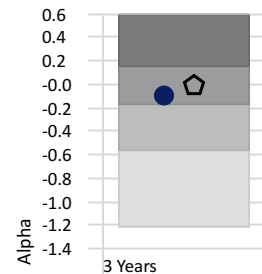
★ BBgBarc US 5-10Y GovCredit FIAdj TR USD

As of Date: 9/30/2019 Calculation Benchmark: BBgBarc US 5-10Y GovCredit FIAdj TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Vanguard Interm-Term Bond Index Adm	10.28	-0.17	3.85	2.83	1.27	6.96	-3.45	7.02	10.73	9.49	6.89
BBgBarc US 5-10Y GovCredit FIAdj TR USD	10.23	-0.07	3.81	3.10	1.28	6.91	-3.37	7.22	10.79	9.44	
Count	394	375	354	330	307	299	291	269	252	240	223
25th Percentile	8.87	0.05	3.76	2.89	0.60	5.99	-1.64	6.24	7.39	7.86	14.40
50th Percentile	8.31	-0.41	3.26	2.46	0.26	5.55	-2.18	5.31	6.63	6.85	10.48
75th Percentile	7.52	-0.83	2.73	2.01	-0.18	4.76	-2.69	3.90	5.65	5.87	6.57

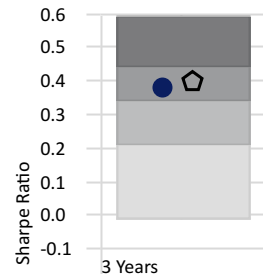
3 Yr Alpha

Peer Group (5-95%): US OE Intermediate Term Bond



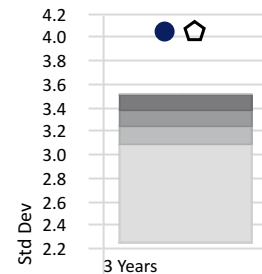
3 Yr Sharpe

Peer Group (5-95%): US OE Intermediate Term Bond



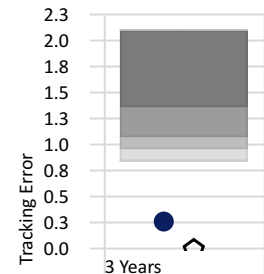
3 Yr Std Deviation

Peer Group (5-95%): US OE Intermediate Term Bond



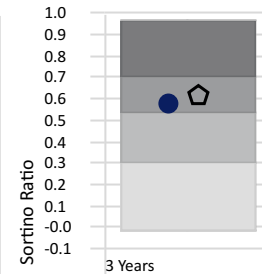
3 Yr Tracking Error

Peer Group (5-95%): US OE Intermediate Term Bond



3 Yr Sortino

Peer Group (5-95%): US OE Intermediate Term Bond



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Vanguard Interm-Term Bond Index Adm	4.07	0.38	-0.08	1.00	0.58	-0.30	47.22	0.27
BBgBarc US 5-10Y GovCredit FIAdj TR USD	4.06	0.40			0.62			

US OE Intermediate-Term Bond

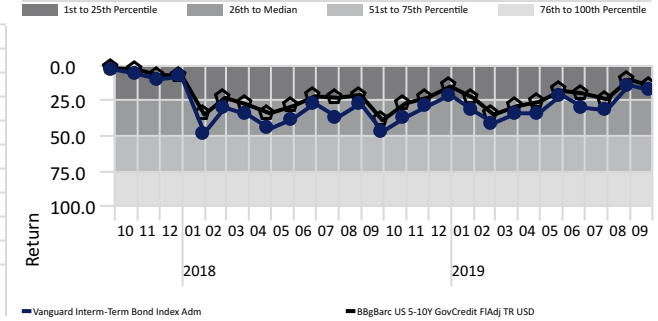
Vanguard Interm-Term Bond Index Adm	4.07	0.38	-0.08	1.00	0.58	-0.30	47.22	0.27
BBgBarc US 5-10Y GovCredit FIAdj TR USD	4.06	0.40			0.62			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

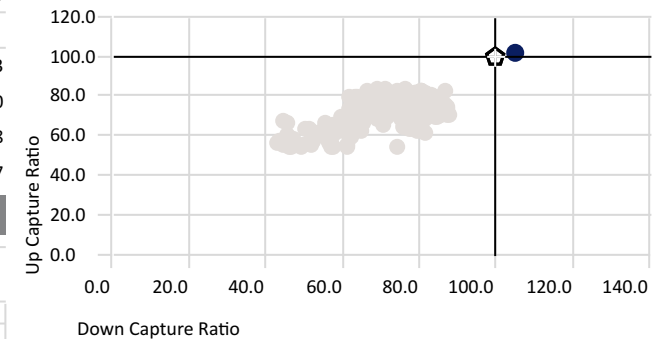
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: BBgBarc US 5-10Y GovCredit FIAdj TR USD



Up/Down Market Capture Ratio

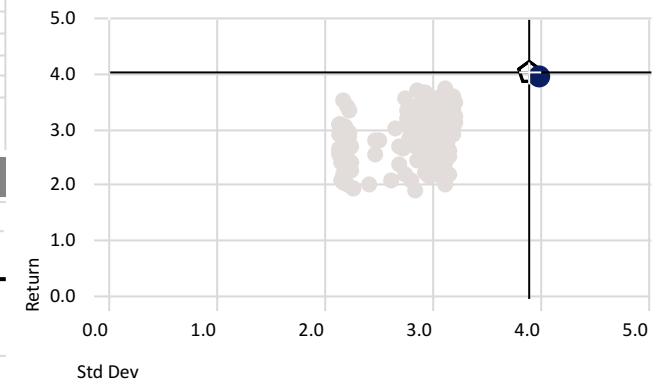
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: BBgBarc US 5-10Y GovCredit FIAdj TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



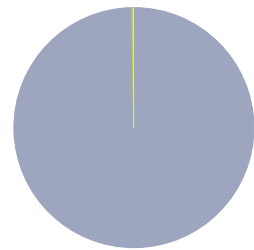
Vanguard Long-Term Bond Index Investor

VB�TX



Asset Allocation

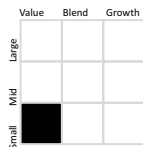
Portfolio Date: 9/30/2019



• Stock	0.0	%
• Bond	99.7	
• Cash	0.2	
• Other	0.1	
Total	100.0	

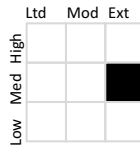
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	0.0	
Consumer Cyclical %	0.0	
Financial Services %	0.0	
Real Estate %	0.0	
Consumer Defensive %	0.0	
Healthcare %	100.0	
Utilities %	0.0	
Communication Services %	0.0	
Energy %	0.0	
Industrials %	0.0	
Technology %	0.0	

Credit Quality

Avg Eff Duration	15.7
Avg Eff Maturity	24.4
Avg Cred Qual	A
Cred Qual AAA%	45.2
Cred Qual AA%	6.1
Cred Qual A%	20.2
Credit Qual BBB %	28.52
Credit Qual BB %	0.00
Credit Qual B %	0.00
Credit Qual Below B %	0.00

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
United States Treasury Bonds 3%		203	1.62%	1.62%
United States Treasury Bonds 2.88%		185	1.47%	1.47%
United States Treasury Bonds 3%		185	1.47%	1.47%
United States Treasury Bonds 3.38%		183	1.45%	1.45%
United States Treasury Bonds 3.12%		168	1.34%	1.34%
United States Treasury Bonds 3.62%		164	1.30%	1.30%
United States Treasury Bonds 3%		163	1.29%	1.29%
United States Treasury Bonds 3.38%		162	1.29%	1.29%
United States Treasury Bonds 2.25%		160	1.27%	1.27%
United States Treasury Bonds 2.75%		160	1.27%	1.27%
Turnover Ratio %			38.00	
% Asset in Top 10 Holdings			13.76	

Key Information

Ticker	VB�TX
Morningstar Category	US Fund Long-Term Bond
Firm Name	Vanguard
Advisor	Vanguard Group Inc
Manager Name	Joshua C. Barrickman
Inception Date	3/1/1994
Fund Size (Mil)	12,667.52
Prospectus Net Expense Ratio	0.15
Firm Name	Vanguard
Web Address	www.vanguard.com

Key Information

Morningstar Rating Overall	★★★
Morningstar Rating 3 Yr	★★
Morningstar Return % Rank Cat 3 Yr	67
Morningstar Rating 5 Yr	★★★
Morningstar Return % Rank Cat 5 Yr	51
Morningstar Rating 10 Yr	★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	64

Key Statistics

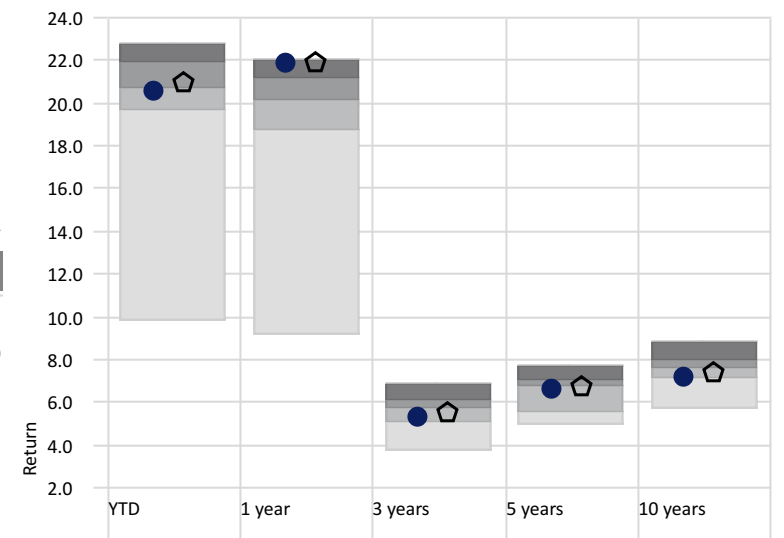
Arithmetic Mean 3 Yr (Mo-End)	0.47
Std Dev 3 Yr (Mo-End)	8.90
Alpha 3 Yr (Mo-End)	0.53
Sharpe Ratio 3 Yr (Mo-End)	0.45
Arithmetic Mean 5 Yr (Mo-End)	0.57
Std Dev 5 Yr (Mo-End)	8.73
Alpha 5 Yr (Mo-End)	-0.59
Sharpe Ratio 5 Yr (Mo-End)	0.67

Investment Strategy

The investment seeks to track the performance of the Bloomberg Barclays U.S. Long Government/Credit Float Adjusted Index. Bloomberg Barclays U.S. Long Government/Credit Float Adjusted Index includes all medium and larger issues of U.S. government, investment-grade corporate, and investment-grade international dollar-denominated bonds that have maturities of greater than 10 years and are publicly issued. All of its investments will be selected through the sampling process, and at least 80% of the fund's assets will be invested in bonds held in the index.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Long-Term Bond

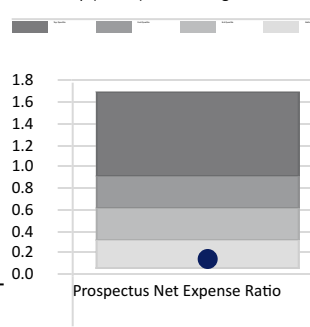


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Vanguard Long-Term Bond Index Investor	20.62	21.93	5.37	6.70	7.29
BBgBarc US L Govt/Credit Fl Adj TR USD	20.94	21.88	5.56	6.81	7.42
Median	20.72	20.14	5.80	6.76	7.59
5th Percentile	22.79	22.01	6.85	7.73	8.80
25th Percentile	21.88	21.15	6.15	7.11	8.00
50th Percentile	20.72	20.14	5.80	6.76	7.59
75th Percentile	19.68	18.78	5.10	5.54	7.19
95th Percentile	9.90	9.21	3.84	5.00	5.77

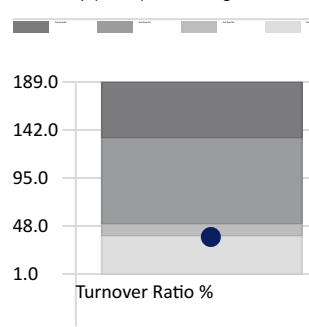
Expense vs Peer Group

Peer Group (5-95%): US OE Long-Term Bond



Turnover vs Peer Group

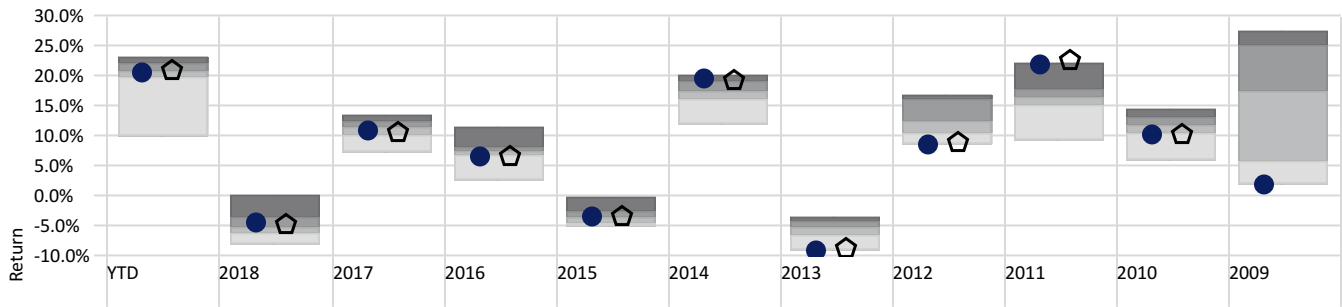
Peer Group (5-95%): US OE Long-Term Bond



Performance Relative to Peer Group

Peer Group (5-95%): US OE Long-Term Bond Calculation Benchmark: BBgBarc US L Govt/Credit FI Adj TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



Vanguard Long-Term Bond Index Investor

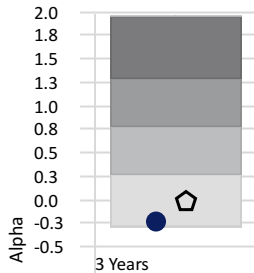
BBgBarc US L Govt/Credit FI Adj TR USD

As of Date: 9/30/2019 Calculation Benchmark: BBgBarc US L Govt/Credit FI Adj TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Vanguard Long-Term Bond Index Investor	20.62	-4.51	10.76	6.41	-3.47	19.72	-9.13	8.49	22.05	10.27	1.76
BBgBarc US L Govt/Credit FI Adj TR USD	20.94	-4.68	10.72	6.68	-3.31	19.31	-8.83	8.79	22.49	10.16	
Count	32	31	30	28	25	25	24	22	20	19	17
25th Percentile	21.88	-3.91	12.31	8.00	-2.74	18.90	-4.35	15.78	17.59	12.91	24.97
50th Percentile	20.72	-5.32	11.35	7.23	-3.64	17.39	-5.55	12.11	16.36	11.53	17.09
75th Percentile	19.68	-6.58	9.97	6.52	-4.63	15.88	-6.64	10.32	15.06	10.36	5.62

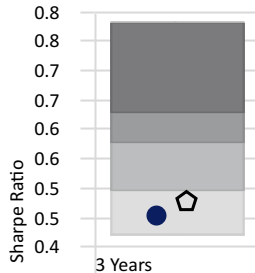
3 Yr Alpha

Peer Group (5-95%): US OE Long-Term Bond



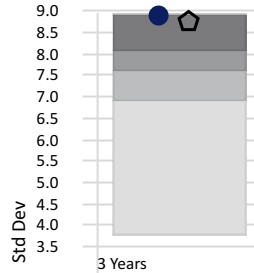
3 Yr Sharpe

Peer Group (5-95%): US OE Long-Term Bond



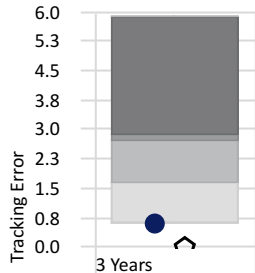
3 Yr Std Deviation

Peer Group (5-95%): US OE Long-Term Bond



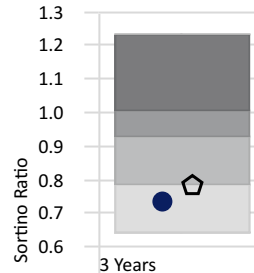
3 Yr Tracking Error

Peer Group (5-95%): US OE Long-Term Bond



3 Yr Sortino

Peer Group (5-95%): US OE Long-Term Bond



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
US OE Long-Term Bond								
Vanguard Long-Term Bond Index Investor	8.90	0.45	-0.22	1.01	0.74	-0.31	41.67	0.62
BBgBarc US L Govt/Credit FI Adj TR USD	8.77	0.48			0.78			

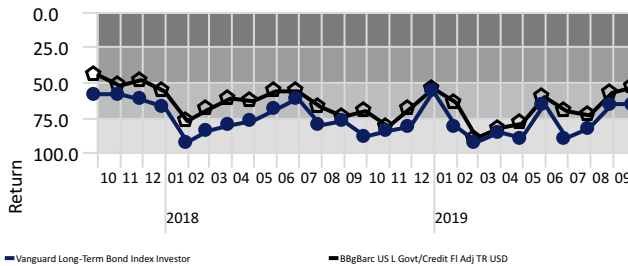
Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

Rolling Window: 3 Years 1 Month shift Calculation Benchmark: BBgBarc US L Govt/Credit FI Adj TR USD

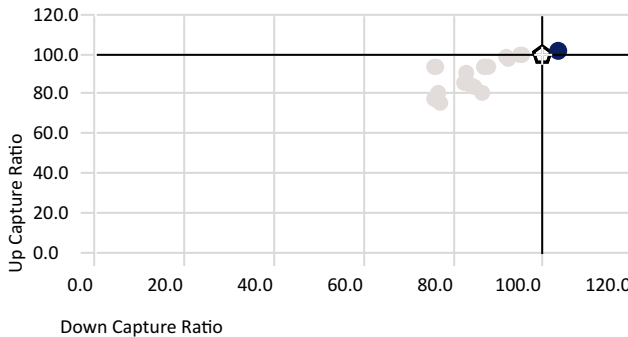
1st to 25th Percentile 26th to Median 51st to 75th Percentile 76th to 100th Percentile



Up/Down Market Capture Ratio

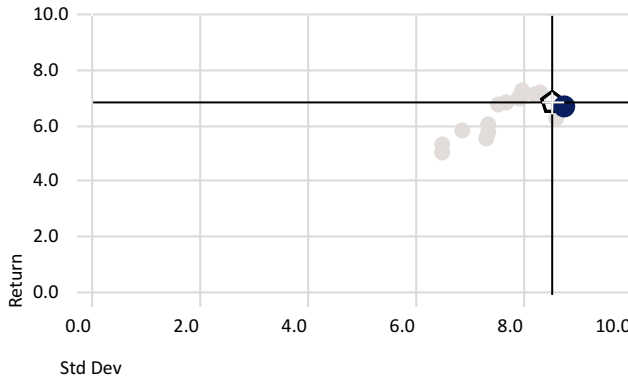
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: BBgBarc US L Govt/Credit FI Adj TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



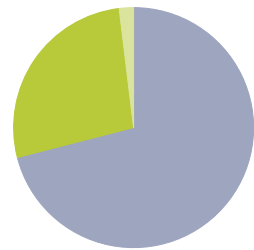
PIMCO Long Duration Total Return Instl

PLRIX



Asset Allocation

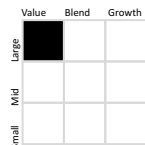
Portfolio Date: 6/30/2019



Stock	0.0
Bond	71.0
Cash	27.1
Other	1.9
Total	100.0

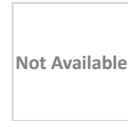
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	0.0	
Consumer Cyclical %	0.0	
Financial Services %	100.0	
Real Estate %	0.0	
Consumer Defensive %	0.0	
Healthcare %	0.0	
Utilities %	0.0	
Communication Services %	0.0	
Energy %	0.0	
Industrials %	0.0	
Technology %	0.0	

Credit Quality

Avg Eff Duration	15.0
Avg Eff Maturity	25.9
Avg Cred Qual	
Cred Qual AAA%	
Cred Qual AA%	
Cred Qual A%	
Credit Qual BBB %	
Credit Qual BB %	
Credit Qual B %	
Credit Qual Below B %	

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
US Ultra Bond (CBT) Sept19		2,051		54.98%
Irs Usd 2.60000 03/16/20-1y (Red) Cme		1,730		46.37%
Federal National Mortgage Association 4%		309		8.29%
Federal National Mortgage Association 4%		243		6.51%
Iro Usd 2y C 2.45000 M 05/11/20 Myc		160		4.29%
United States Treasury Notes 1.12%		138		3.69%
Federal National Mortgage Association 3.5%		115		3.09%
United States Treasury Notes 1.38%		113		3.03%
Irs Usd 2.74000 12/05/18-5y Cme		111		2.98%
Pimco Fds		110		2.96%
Turnover Ratio %				189.00
% Asset in Top 10 Holdings				-15.29

Key Information

Ticker	PLRIX
Morningstar Category	US Fund Long-Term Bond
Firm Name	PIMCO
Advisor	Pacific Investment Management Company, LLC
Manager Name	Multiple
Inception Date	8/31/2006
Fund Size (Mil)	3,395.75
Prospectus Net Expense Ratio	0.97
Firm Name	PIMCO
Web Address	www.pimco.com

Key Information

Morningstar Rating Overall	★★★★
Morningstar Rating 3 Yr	★★★★
Morningstar Return % Rank Cat 3 Yr	20
Morningstar Rating 5 Yr	★★★★★
Morningstar Return % Rank Cat 5 Yr	8
Morningstar Rating 10 Yr	★★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	32

Key Statistics

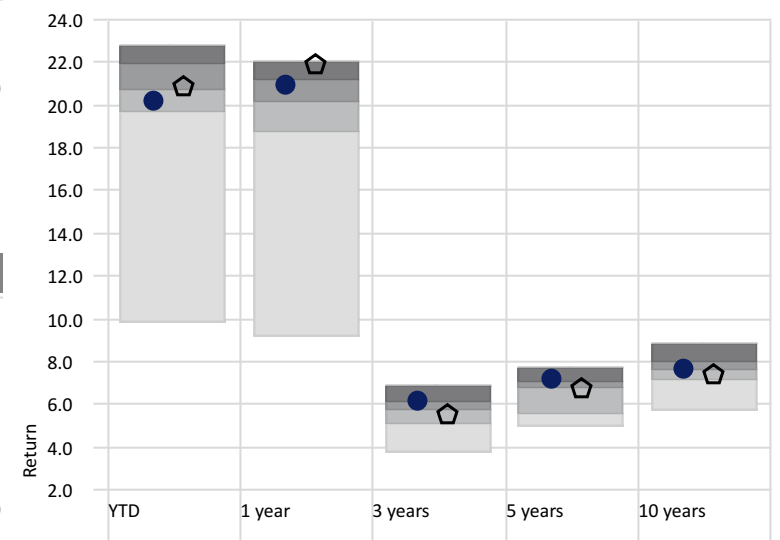
Arithmetic Mean 3 Yr (Mo-End)	0.53
Std Dev 3 Yr (Mo-End)	8.49
Alpha 3 Yr (Mo-End)	1.48
Sharpe Ratio 3 Yr (Mo-End)	0.57
Arithmetic Mean 5 Yr (Mo-End)	0.61
Std Dev 5 Yr (Mo-End)	8.30
Alpha 5 Yr (Mo-End)	0.20
Sharpe Ratio 5 Yr (Mo-End)	0.76

Investment Strategy

The investment seeks maximum total return, consistent with prudent investment management. The fund invests at least 65% of its total assets in a diversified portfolio of Fixed Income Instruments of varying maturities, which may be represented by forwards or derivatives such as options, futures contracts or swap agreements. "Fixed Income Instruments" include bonds, debt securities and other similar instruments issued by various U.S. and non-U.S. public- or private-sector entities. It may invest up to 30% of its total assets in securities denominated in foreign currencies, and may invest beyond this limit in U.S. dollar-denominated securities of foreign issuers.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Long-Term Bond

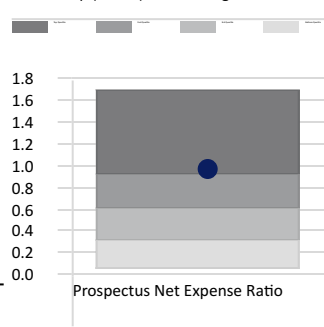


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
PIMCO Long Duration Total Return Instl	20.19	21.02	6.23	7.21	7.69
BBgBarc US Govt/Credit Long TR USD	20.93	21.88	5.56	6.81	7.42
Median	20.72	20.14	5.80	6.76	7.59
5th Percentile	22.79	22.01	6.85	7.73	8.80
25th Percentile	21.88	21.15	6.15	7.11	8.00
50th Percentile	20.72	20.14	5.80	6.76	7.59
75th Percentile	19.68	18.78	5.10	5.54	7.19
95th Percentile	9.90	9.21	3.84	5.00	5.77

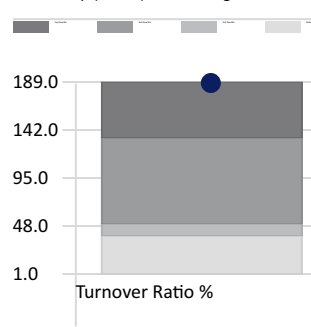
Expense vs Peer Group

Peer Group (5-95%): US OE Long-Term Bond



Turnover vs Peer Group

Peer Group (5-95%): US OE Long-Term Bond



PIMCO Long Duration Total Return Instl

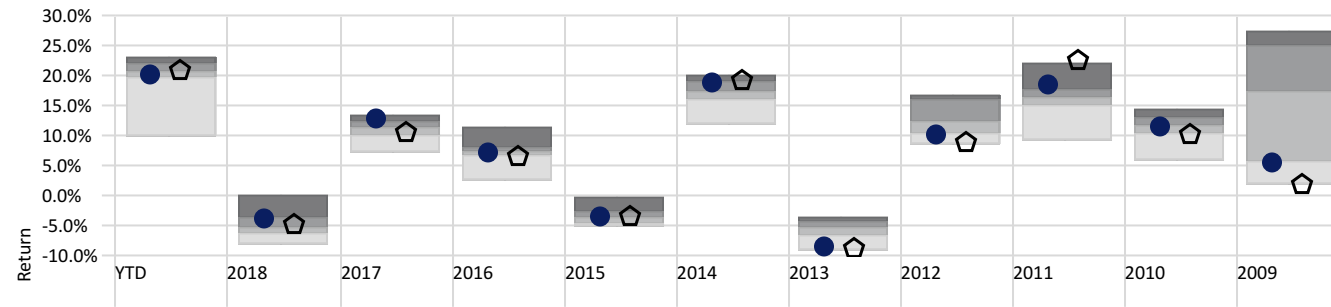
PLRIX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Long-Term Bond Calculation Benchmark: BBgBarc US Govt/Credit Long TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



PIMCO Long Duration Total Return Instl

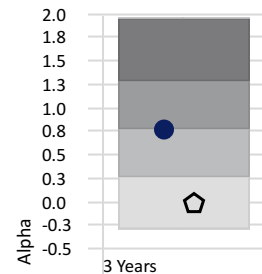
BBgBarc US Govt/Credit Long TR USD

As of Date: 9/30/2019 Calculation Benchmark: BBgBarc US Govt/Credit Long TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
PIMCO Long Duration Total Return Instl	20.19	-3.86	12.75	7.18	-3.44	19.02	-8.56	10.28	18.57	11.64	5.62
BBgBarc US Govt/Credit Long TR USD	20.93	-4.68	10.71	6.67	-3.30	19.31	-8.83	8.78	22.49	10.16	1.92
Count	32	31	30	28	25	25	24	22	20	19	17
25th Percentile	21.88	-3.91	12.31	8.00	-2.74	18.90	-4.35	15.78	17.59	12.91	24.97
50th Percentile	20.72	-5.32	11.35	7.23	-3.64	17.39	-5.55	12.11	16.36	11.53	17.09
75th Percentile	19.68	-6.58	9.97	6.52	-4.63	15.88	-6.64	10.32	15.06	10.36	5.62

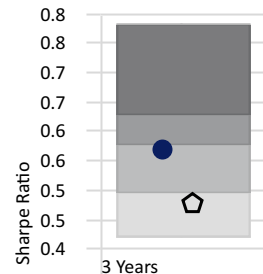
3 Yr Alpha

Peer Group (5-95%): US OE Long-Term Bond



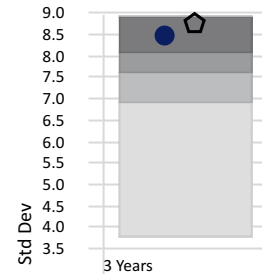
3 Yr Sharpe

Peer Group (5-95%): US OE Long-Term Bond



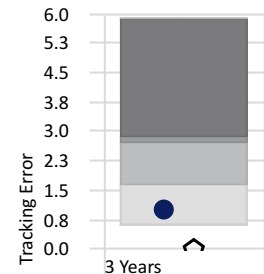
3 Yr Std Deviation

Peer Group (5-95%): US OE Long-Term Bond



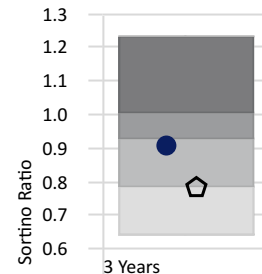
3 Yr Tracking Error

Peer Group (5-95%): US OE Long-Term Bond



3 Yr Sortino

Peer Group (5-95%): US OE Long-Term Bond



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
PIMCO Long Duration Total Return Instl	8.49	0.57	0.78	0.96	0.91	0.66	61.11	1.02
BBgBarc US Govt/Credit Long TR USD	8.77	0.48			0.78			

US OE Long-Term Bond

PIMCO Long Duration Total Return Instl	8.49	0.57	0.78	0.96	0.91	0.66	61.11	1.02
BBgBarc US Govt/Credit Long TR USD	8.77	0.48			0.78			

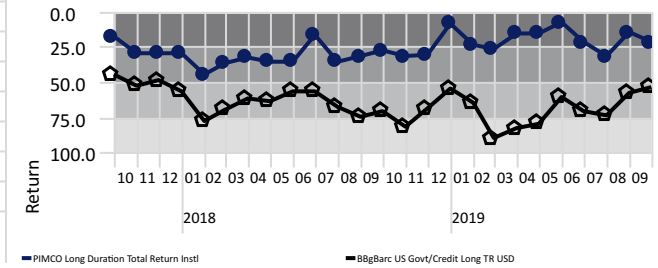
Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

Rolling Window: 3 Years 1 Month shift Calculation Benchmark: BBgBarc US Govt/Credit Long TR USD

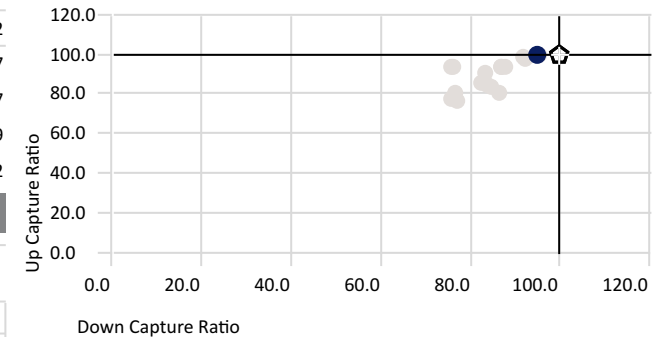
1st to 25th Percentile 26th to Median 51st to 75th Percentile 76th to 100th Percentile



Up/Down Market Capture Ratio

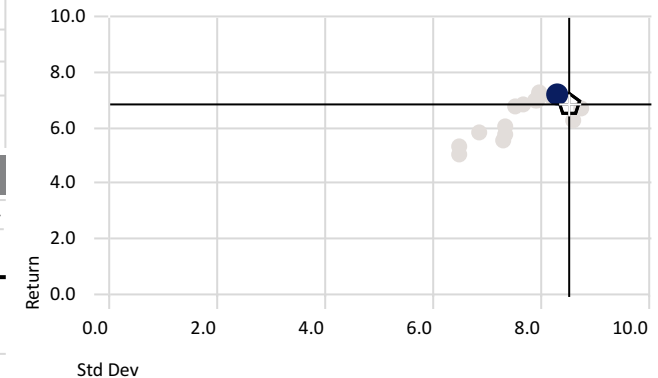
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: BBgBarc US Govt/Credit Long TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



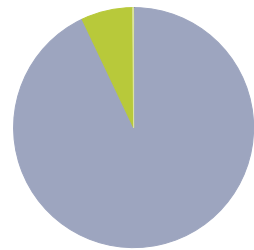
PGIM High Yield R6

PHYQX



Asset Allocation

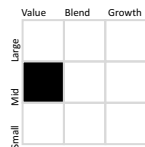
Portfolio Date: 9/30/2019



• Stock	0.1
• Bond	92.8
• Cash	6.9
• Other	0.1
Total	100.0

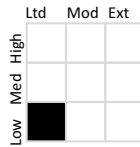
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv Bmk1
Basic Materials %	0.0
Consumer Cyclical %	0.1
Financial Services %	0.0
Real Estate %	0.0
Consumer Defensive %	0.0
Healthcare %	0.0
Utilities %	94.4
Communication Services %	0.0
Energy %	5.6
Industrials %	0.0
Technology %	0.0

Credit Quality

Avg Eff Duration	3.5
Avg Eff Maturity	B
Avg Cred Qual	
Cred Qual AAA%	11.8
Cred Qual AA%	0.0
Cred Qual A%	0.0
Credit Qual BBB %	5.20
Credit Qual BB %	33.20
Credit Qual B %	38.51
Credit Qual Below B %	10.64

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
Pgim Core Ultra Short Bond Fund		683		6.94%
DISH DBS Corporation 7.75%		150		1.52%
Calpine Corporation 5.75%		112		1.14%
Financial & Risk US Holdings Inc 8.25%		105		1.06%
Clear Channel Worldwide Holdings Inc. 9.25%		100		1.01%
Wand Merger Corporation 9.12%		88		0.89%
Sprint Capital Corporation 8.75%		83		0.84%
Banff Merger Sub Inc 9.75%		80		0.81%
Bombardier Inc. 7.88%		79		0.80%
LifePoint Health, Inc 9.75%		74		0.75%
Turnover Ratio %				44.00
% Asset in Top 10 Holdings				9.59

Key Information

Ticker	PHYQX
Morningstar Category	US Fund High Yield Bond
Firm Name	PGIM Funds (Prudential)
Advisor	PGIM Investments LLC
Manager Name	Multiple
Inception Date	10/31/2011
Fund Size (Mil)	10,888.32
Prospectus Net Expense Ratio	0.42
Firm Name	PGIM Funds (Prudential)
Web Address	www.pgiminvestments.com

Key Information

Morningstar Rating Overall	★★★★★
Morningstar Rating 3 Yr	★★★★★
Morningstar Return % Rank Cat 3 Yr	3
Morningstar Rating 5 Yr	★★★★★
Morningstar Return % Rank Cat 5 Yr	2
Morningstar Rating 10 Yr	
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	

Key Statistics

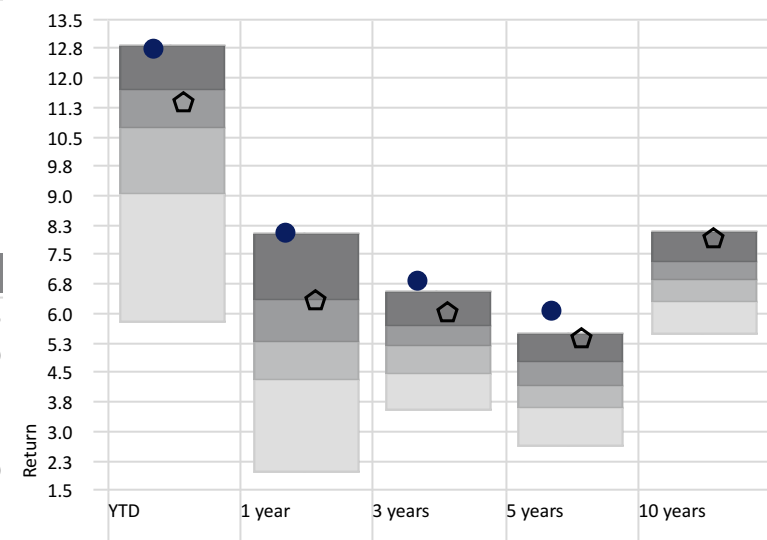
Arithmetic Mean 3 Yr (Mo-End)	0.56
Std Dev 3 Yr (Mo-End)	4.20
Alpha 3 Yr (Mo-End)	4.88
Sharpe Ratio 3 Yr (Mo-End)	1.22
Arithmetic Mean 5 Yr (Mo-End)	0.50
Std Dev 5 Yr (Mo-End)	5.02
Alpha 5 Yr (Mo-End)	4.61
Sharpe Ratio 5 Yr (Mo-End)	1.00

Investment Strategy

The investment seeks to maximize current income; and capital appreciation is a secondary objective. The fund normally invests at least 80% of its investable assets in a diversified portfolio of high yield fixed-income instruments rated Ba or lower by Moody's Investors Service (Moody's) or BB or lower by S&P Global Ratings (Standard & Poor's), and instruments either rated by another nationally recognized statistical rating organization (NRSRO), or considered to be of comparable quality, that is, junk bonds.

Performance Relative to Peer Group

Peer Group (5-95%): US OE High Yield Bond

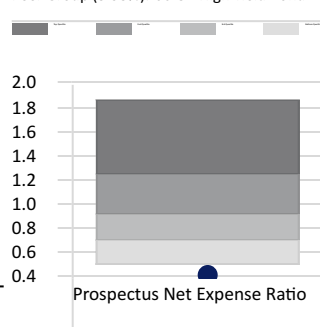


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
PGIM High Yield R6	12.78	8.11	6.85	6.09	
BBGBarc High Yield Corporate TR USD	11.41	6.36	6.07	5.37	7.94
Median	10.75	5.29	5.20	4.15	6.85
5th Percentile	12.85	8.01	6.54	5.49	8.07
25th Percentile	11.71	6.35	5.69	4.79	7.30
50th Percentile	10.75	5.29	5.20	4.15	6.85
75th Percentile	9.05	4.31	4.48	3.58	6.29
95th Percentile	5.77	1.99	3.55	2.62	5.50

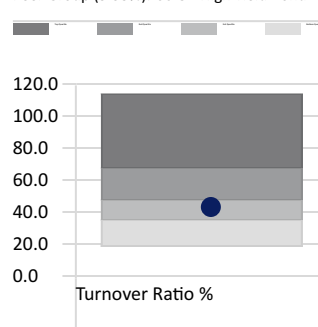
Expense vs Peer Group

Peer Group (5-95%): US OE High Yield Bond



Turnover vs Peer Group

Peer Group (5-95%): US OE High Yield Bond



PGIM High Yield R6

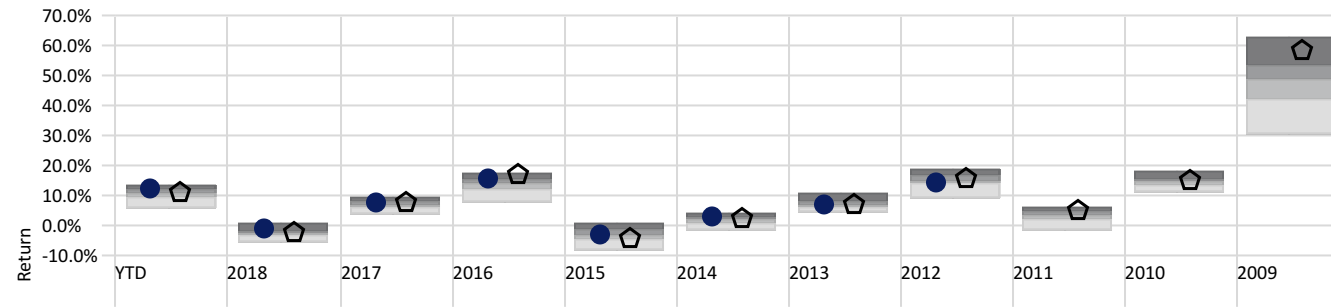
PHYQX



Performance Relative to Peer Group

Peer Group (5-95%): US OE High Yield Bond Calculation Benchmark: BBgBarc High Yield Corporate TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



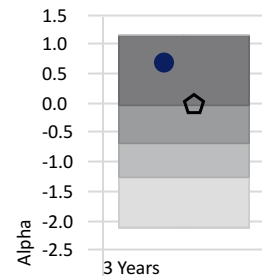
PGIM High Yield R6 BBgBarc High Yield Corporate TR USD

As of Date: 9/30/2019 Calculation Benchmark: BBgBarc High Yield Corporate TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
PGIM High Yield R6	12.78	-1.18	7.70	15.61	-2.68	2.95	7.15	14.45			
BBgBarc High Yield Corporate TR USD	11.41	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12	58.21
Count	677	651	594	573	528	485	447	393	361	340	319
25th Percentile	11.71	-2.01	7.52	15.33	-1.82	2.48	7.82	16.30	4.48	15.45	53.10
50th Percentile	10.75	-2.94	6.70	13.53	-3.75	1.62	6.55	14.64	3.34	14.27	48.42
75th Percentile	9.05	-3.84	5.92	11.74	-5.18	0.49	5.55	13.48	2.02	13.24	41.68

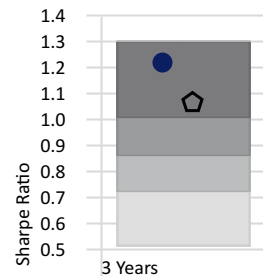
3 Yr Alpha

Peer Group (5-95%): US OE High Yield Bond



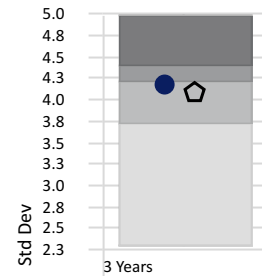
3 Yr Sharpe

Peer Group (5-95%): US OE High Yield Bond



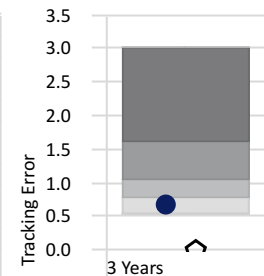
3 Yr Std Deviation

Peer Group (5-95%): US OE High Yield Bond



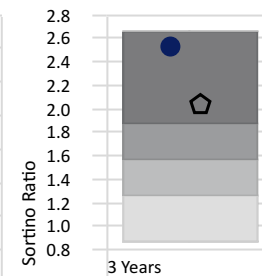
3 Yr Tracking Error

Peer Group (5-95%): US OE High Yield Bond



3 Yr Sortino

Peer Group (5-95%): US OE High Yield Bond



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
PGIM High Yield R6	4.20	1.22	0.70	1.01	2.55	1.12	61.11	0.70
BBgBarc High Yield Corporate TR USD	4.09	1.07			2.04			

US OE High Yield Bond

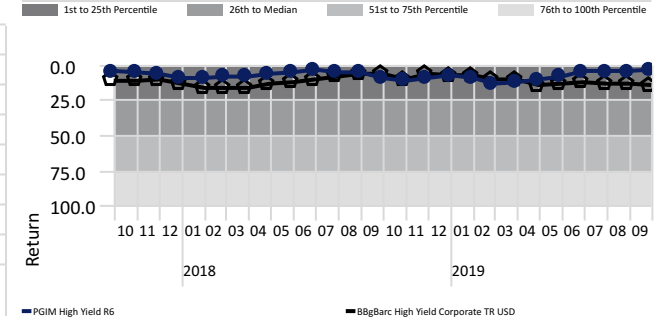
PGIM High Yield R6	4.20	1.22	0.70	1.01	2.55	1.12	61.11	0.70
BBgBarc High Yield Corporate TR USD	4.09	1.07			2.04			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

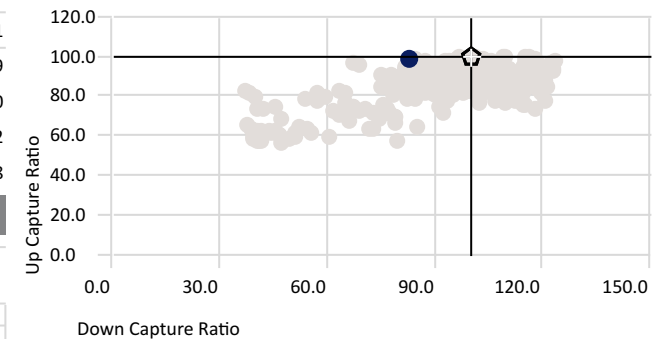
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: BBgBarc High Yield Corporate TR USD



Up/Down Market Capture Ratio

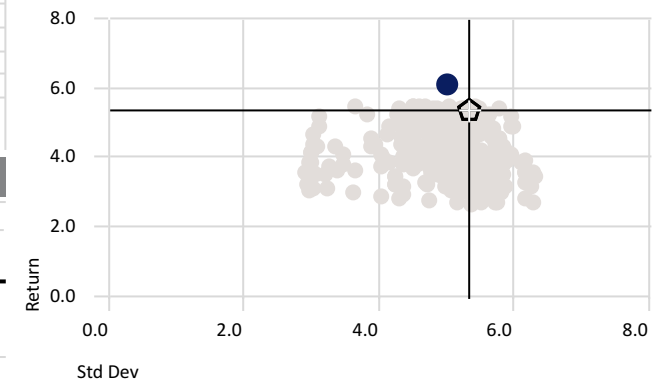
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: BBgBarc High Yield Corporate TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



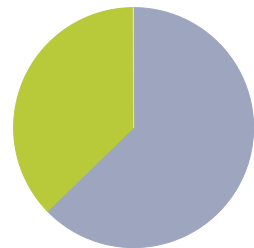
Columbia Strategic Income Inst3

CPHUX



Asset Allocation

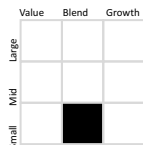
Portfolio Date: 6/30/2019



• Stock	0.0
• Bond	62.7
• Cash	37.2
• Other	0.1
Total	100.0

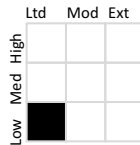
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv Bmk1
Basic Materials %	16.3
Consumer Cyclical %	83.4
Financial Services %	0.0
Real Estate %	0.0
Consumer Defensive %	0.0
Healthcare %	0.0
Utilities %	0.0
Communication Services %	0.3
Energy %	0.0
Industrials %	0.0
Technology %	0.0

Credit Quality

Avg Eff Duration	2.8
Avg Eff Maturity	8.2
Avg Cred Qual	BB
Cred Qual AAA%	9.6
Cred Qual AA%	7.7
Cred Qual A%	7.9
Credit Qual BBB %	23.73
Credit Qual BB %	14.10
Credit Qual B %	16.98
Credit Qual Below B %	2.38

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
10yr Rtr 2.500000 04-Mar-2020		505		9.40%
Federal National Mortgage Association 3.5%		245		4.57%
US 5 Year Note (CBT) Sept19		234		4.36%
Columbia Short-Term Cash		164		3.05%
Federal National Mortgage Association 4%		128		2.38%
Federal National Mortgage Association 5%		127		2.36%
Goldman Sachs Group, Inc. 4.22%		39		0.73%
Barings Clo Limited 4.18%		38		0.71%
Pnmac Gsmr Issuer Trust 5.25%		35		0.65%
Government National Mortgage Association 3%		33		0.61%
Turnover Ratio %				152.00
% Asset in Top 10 Holdings				-48.71

Key Information

Ticker	CPHUX
Morningstar Category	US Fund Nontraditional Bond
Firm Name	Columbia
Advisor	Columbia Mgmt Investment Advisers, LLC
Manager Name	Multiple
Inception Date	6/13/2013
Fund Size (Mil)	5,146.31
Prospectus Net Expense Ratio	0.61
Firm Name	Columbia
Web Address	www.columbiathreadneedleus.com

Key Information

Morningstar Rating Overall	★★★★★
Morningstar Rating 3 Yr	★★★★
Morningstar Return % Rank Cat 3 Yr	20
Morningstar Rating 5 Yr	★★★★★
Morningstar Return % Rank Cat 5 Yr	5
Morningstar Rating 10 Yr	
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	

Key Statistics

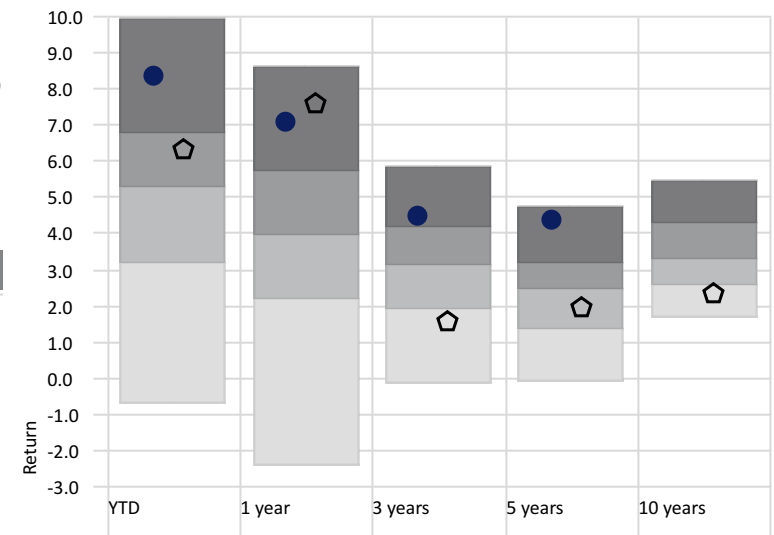
Arithmetic Mean 3 Yr (Mo-End)	0.37
Std Dev 3 Yr (Mo-End)	2.58
Alpha 3 Yr (Mo-End)	2.49
Sharpe Ratio 3 Yr (Mo-End)	1.12
Arithmetic Mean 5 Yr (Mo-End)	0.37
Std Dev 5 Yr (Mo-End)	3.29
Alpha 5 Yr (Mo-End)	2.92
Sharpe Ratio 5 Yr (Mo-End)	1.03

Investment Strategy

The investment seeks total return, consisting of current income and capital appreciation. Under normal circumstances, the fund has substantial exposure to fixed-income/debt markets. It may invest in U.S. government bonds and notes, U.S. and international bonds and notes, investment grade corporate (or similar) bonds and notes, mortgage- and other asset-backed securities, high yield (i.e., junk) instruments, floating rate loans and other floating rate debt securities, inflation-protected/linked securities, convertible securities, cash/cash equivalents, as well as foreign government, sovereign and quasi-sovereign debt investments.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Non Traditional Bond

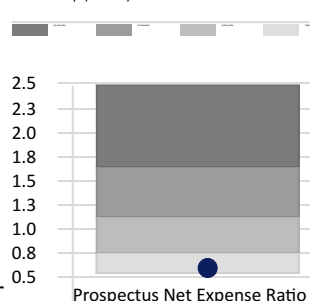


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Columbia Strategic Income Inst3	8.39	7.11	4.54	4.43	
BBGBarc Global Aggregate TR USD	6.32	7.60	1.59	1.99	2.34
Median	5.31	3.95	3.16	2.47	3.32
5th Percentile	9.94	8.61	5.86	4.76	5.44
25th Percentile	6.78	5.74	4.21	3.21	4.28
50th Percentile	5.31	3.95	3.16	2.47	3.32
75th Percentile	3.19	2.19	1.95	1.40	2.59
95th Percentile	-0.66	-2.39	-0.13	-0.03	1.68

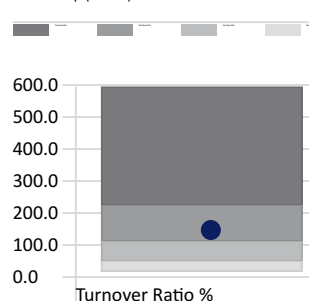
Expense vs Peer Group

Peer Group (5-95%): US OE Non Traditional Bond



Turnover vs Peer Group

Peer Group (5-95%): US OE Non Traditional Bond



Columbia Strategic Income Inst3

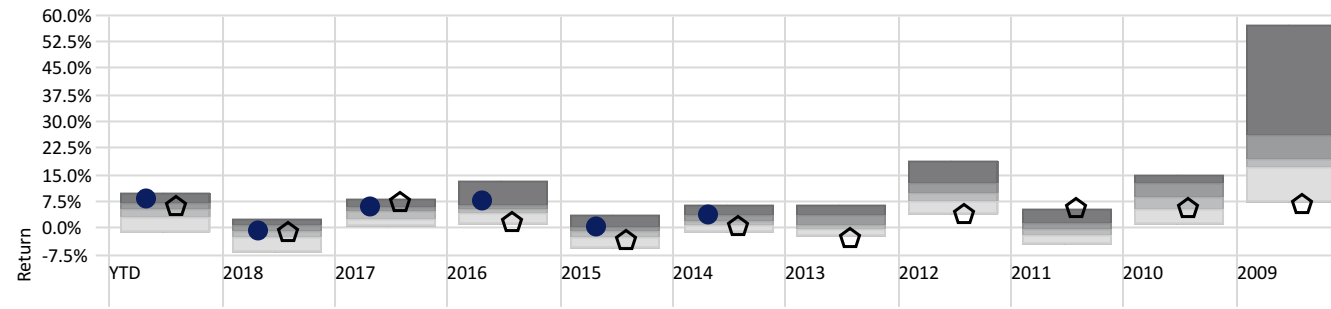
CPHUX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Non Traditional Bond Calculation Benchmark: BBgBarc Global Aggregate TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



● Columbia Strategic Income Inst3

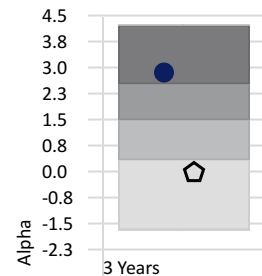
★ BBgBarc Global Aggregate TR USD

As of Date: 9/30/2019 Calculation Benchmark: BBgBarc Global Aggregate TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
	8.39	-0.64	6.22	8.34	0.66	3.99					
BBgBarc Global Aggregate TR USD	6.32	-1.20	7.39	2.09	-3.15	0.59	-2.60	4.32	5.64	5.54	6.93
Count	302	282	268	253	225	176	141	123	97	76	67
25th Percentile	6.78	0.80	5.91	6.66	0.43	3.60	3.45	12.83	1.38	12.33	26.09
50th Percentile	5.31	-0.66	4.59	5.10	-0.97	2.00	0.95	9.67	-0.49	8.64	19.21
75th Percentile	3.19	-2.64	2.66	4.00	-2.60	1.00	-0.19	7.38	-2.21	5.17	16.94

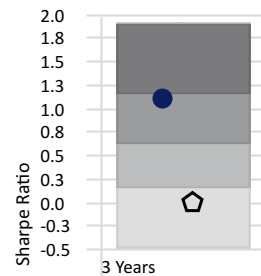
3 Yr Alpha

Peer Group (5-95%): US OE Non Traditional Bond



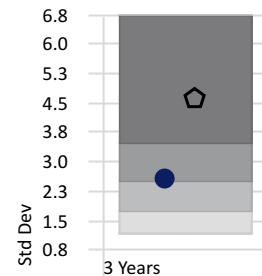
3 Yr Sharpe

Peer Group (5-95%): US OE Non Traditional Bond



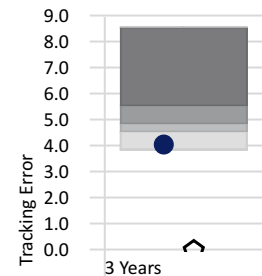
3 Yr Std Deviation

Peer Group (5-95%): US OE Non Traditional Bond



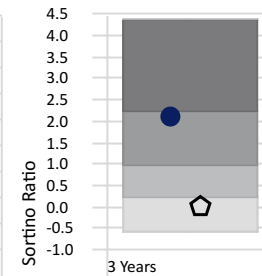
3 Yr Tracking Error

Peer Group (5-95%): US OE Non Traditional Bond



3 Yr Sortino

Peer Group (5-95%): US OE Non Traditional Bond



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years

US OE Nontraditional Bond

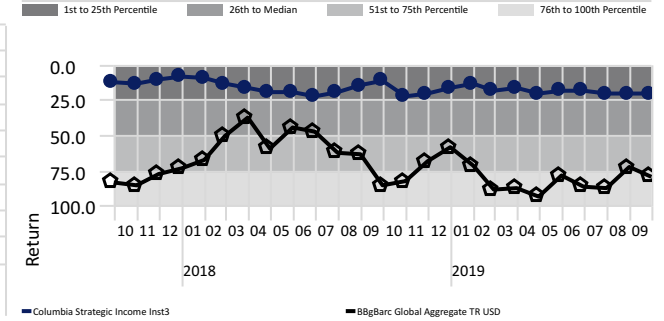
Columbia Strategic Income Inst3	2.58	1.12	2.86	0.26	2.15	0.72	50.00	4.10
BBgBarc Global Aggregate TR USD	4.67	0.02			0.02			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

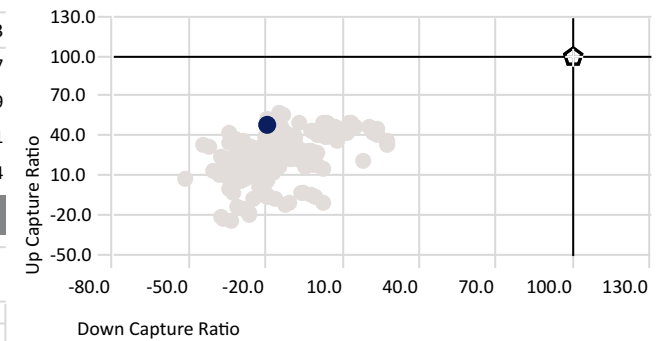
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: BBgBarc Global Aggregate TR USD



Up/Down Market Capture Ratio

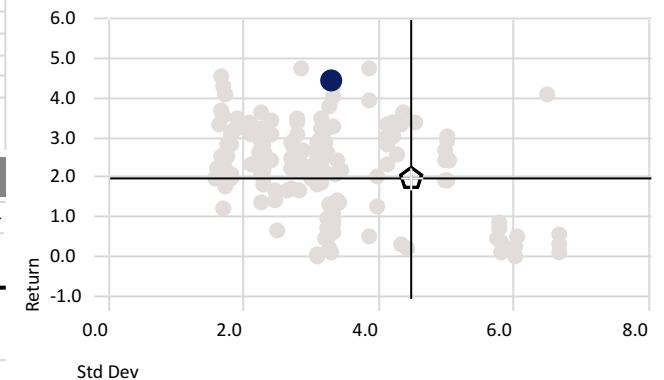
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: BBgBarc Global Aggregate TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



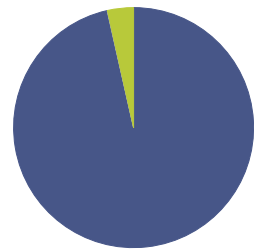
Vanguard Equity-Income Adm

VEIRX



Asset Allocation

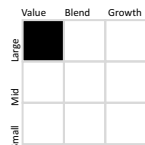
Portfolio Date: 6/30/2019



• Stock	96.5	%
• Bond	0.0	
• Cash	3.5	
• Other	0.0	
Total	100.0	

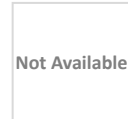
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	2.8	3.6
Consumer Cyclical %	4.8	6.7
Financial Services %	17.9	22.2
Real Estate %	1.3	5.4
Consumer Defensive %	12.9	8.3
Healthcare %	16.1	15.0
Utilities %	8.4	6.4
Communication Services %	6.5	5.5
Energy %	9.0	9.0
Industrials %	10.0	8.3
Technology %	10.3	9.5

Credit Quality

	Avg Eff Duration
	Avg Eff Maturity
	Avg Cred Qual
	Cred Qual AAA%
	Cred Qual AA%
	Cred Qual A%
	Credit Qual BBB %
	Credit Qual BB %
	Credit Qual B %
	Credit Qual Below B %

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
JPMorgan Chase & Co		1,324	4.74	3.71%
Johnson & Johnson		1,117	2.73	3.13%
Verizon Communications Inc		1,077	6.09	3.02%
Cisco Systems Inc		950	-18.19	2.66%
Pfizer Inc		913	-14.35	2.56%
Chevron Corp		882	-6.78	2.47%
Merck & Co Inc		762	4.18	2.14%
Comcast Corp Class A		729	1.60	2.04%
Intel Corp		729	7.30	2.04%
Bank of America Corporation		712	4.69	2.00%
Turnover Ratio %				37.00
% Asset in Top 10 Holdings				25.76

Key Information

Ticker	VEIRX
Morningstar Category	US Fund Large Value
Firm Name	Vanguard
Advisor	Multiple
Manager Name	Multiple
Inception Date	8/13/2001
Fund Size (Mil)	36,449.43
Prospectus Net Expense Ratio	0.18
Firm Name	Vanguard
Web Address	www.vanguard.com

Key Information

Morningstar Rating Overall	★★★★★
Morningstar Rating 3 Yr	★★★★
Morningstar Return % Rank Cat 3 Yr	15
Morningstar Rating 5 Yr	★★★★★
Morningstar Return % Rank Cat 5 Yr	9
Morningstar Rating 10 Yr	★★★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	5

Key Statistics

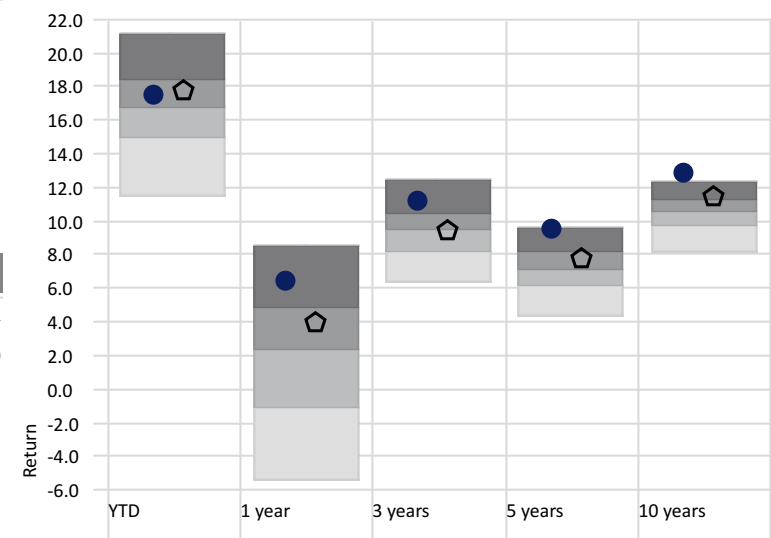
Arithmetic Mean 3 Yr (Mo-End)	0.94
Std Dev 3 Yr (Mo-End)	11.00
Alpha 3 Yr (Mo-End)	-0.47
Sharpe Ratio 3 Yr (Mo-End)	0.88
Arithmetic Mean 5 Yr (Mo-End)	0.82
Std Dev 5 Yr (Mo-End)	10.77
Alpha 5 Yr (Mo-End)	0.05
Sharpe Ratio 5 Yr (Mo-End)	0.81

Investment Strategy

The investment seeks to provide an above-average level of current income and reasonable long-term capital appreciation. The fund invests mainly in common stocks of mid-size and large companies whose stocks typically pay above-average levels of dividend income and are, in the opinion of the purchasing advisor, undervalued relative to similar stocks. In addition, the advisors generally look for companies that they believe are committed to paying dividends consistently. Under normal circumstances, it will invest at least 80% of its assets in equity securities. The fund uses multiple investment advisors.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Large Value

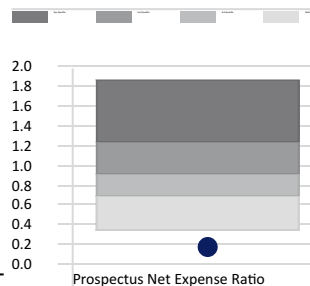


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Vanguard Equity-Income Adm	17.51	6.51	11.24	9.62	12.93
Russell 1000 Value TR USD	17.81	4.00	9.43	7.79	11.46
Median	16.73	2.30	9.44	7.10	10.51
5th Percentile	21.17	8.59	12.44	9.56	12.33
25th Percentile	18.40	4.90	10.49	8.19	11.27
50th Percentile	16.73	2.30	9.44	7.10	10.51
75th Percentile	14.89	-1.14	8.18	6.19	9.74
95th Percentile	11.48	-5.33	6.37	4.32	8.12

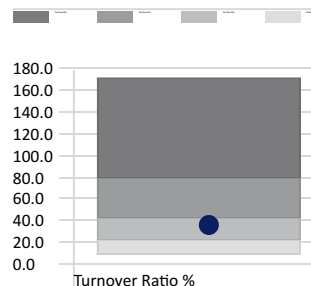
Expense vs Peer Group

Peer Group (5-95%): US OE Large Value



Turnover vs Peer Group

Peer Group (5-95%): US OE Large Value



Vanguard Equity-Income Adm

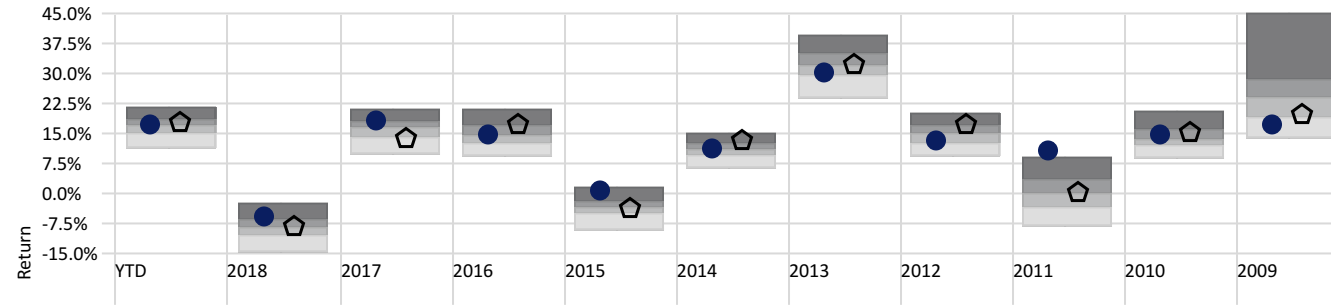
VEIRX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Large Value Calculation Benchmark: Russell 1000 Value TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



Vanguard Equity-Income Adm

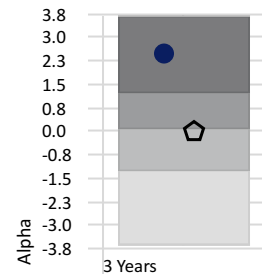
Russell 1000 Value TR USD

As of Date: 9/30/2019 Calculation Benchmark: Russell 1000 Value TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Vanguard Equity-Income Adm	17.51	-5.65	18.49	14.82	0.86	11.38	30.19	13.58	10.69	14.99	17.26
Russell 1000 Value TR USD	17.81	-8.27	13.66	17.34	-3.83	13.45	32.53	17.51	0.39	15.51	19.69
Count	1,137	1,114	1,042	1,000	916	864	817	753	725	684	656
25th Percentile	18.40	-6.69	17.99	16.86	-1.91	12.42	34.70	16.95	3.27	15.77	28.42
50th Percentile	16.73	-8.89	16.15	14.25	-3.53	11.01	31.65	14.92	-0.40	13.55	23.94
75th Percentile	14.89	-10.66	13.96	12.40	-5.13	9.35	29.29	12.56	-3.47	11.97	18.95

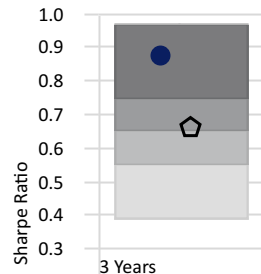
3 Yr Alpha

Peer Group (5-95%): US OE Large Value



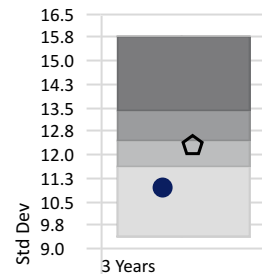
3 Yr Sharpe

Peer Group (5-95%): US OE Large Value



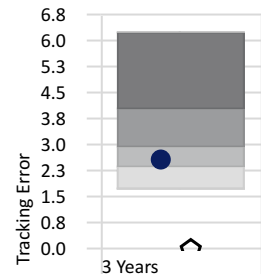
3 Yr Std Deviation

Peer Group (5-95%): US OE Large Value



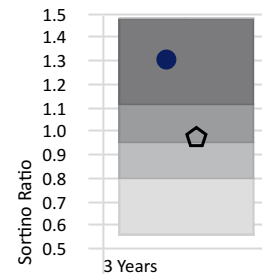
3 Yr Tracking Error

Peer Group (5-95%): US OE Large Value



3 Yr Sortino

Peer Group (5-95%): US OE Large Value



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Vanguard Equity-Income Adm	11.00	0.88	2.52	0.88	1.31	0.71	58.33	2.57
Russell 1000 Value TR USD	12.34	0.66				0.97		

US OE Large Value

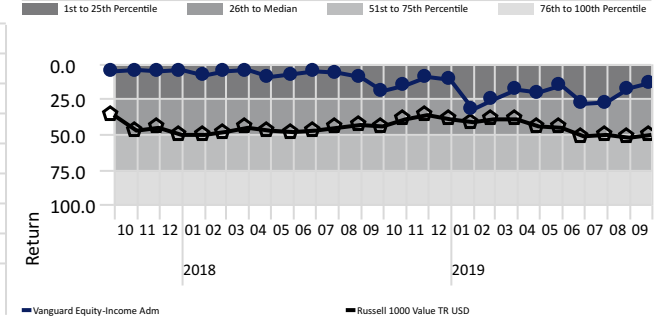
Vanguard Equity-Income Adm	11.00	0.88	2.52	0.88	1.31	0.71	58.33	2.57
Russell 1000 Value TR USD	12.34	0.66				0.97		

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

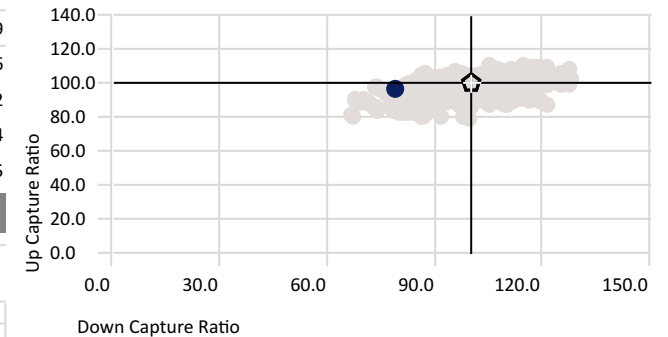
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: Russell 1000 Value TR USD



Up/Down Market Capture Ratio

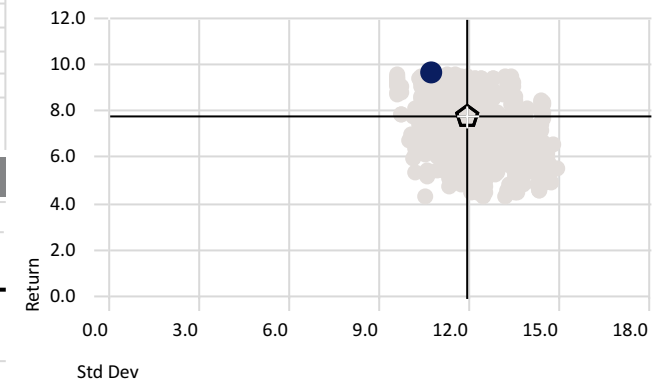
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: Russell 1000 Value TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



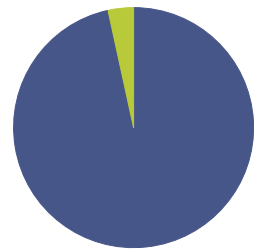
Vanguard PRIMECAP Core Inv

VPCCX



Asset Allocation

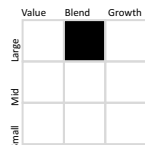
Portfolio Date: 6/30/2019



• Stock	96.6
• Bond	0.0
• Cash	3.4
• Other	0.0
Total	100.0

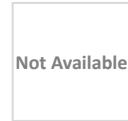
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	1.5	2.5
Consumer Cyclical %	11.3	12.6
Financial Services %	12.2	15.2
Real Estate %	0.0	3.3
Consumer Defensive %	0.4	7.4
Healthcare %	23.4	13.8
Utilities %	0.0	3.2
Communication Services %	0.8	3.4
Energy %	1.3	4.9
Industrials %	19.7	10.4
Technology %	29.5	23.4

Credit Quality

	Avg Eff Duration
	Avg Eff Maturity
	Avg Cred Qual
	Cred Qual AAA%
	Cred Qual AA%
	Cred Qual A%
	Credit Qual BBB %
	Credit Qual BB %
	Credit Qual B %
	Credit Qual Below B %

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
Southwest Airlines Co	■	443	1.07	4.10%
JPMorgan Chase & Co	■	380	4.74	3.52%
Eli Lilly and Co	■	352	-0.21	3.26%
Texas Instruments Inc	■	337	9.77	3.12%
Amgen Inc	■	314	15.32	2.91%
Microsoft Corp	■	292	2.76	2.70%
AstraZeneca PLC ADR	■	283	10.05	2.62%
Novartis AG ADR	■	208	-2.42	1.93%
Siemens AG	■	207	-1.17	1.92%
Biogen Inc	■	194	-1.65	1.79%
Turnover Ratio %				9.00
% Asset in Top 10 Holdings				27.88

Key Information

Ticker	VPCCX
Morningstar Category	US Fund Large Blend
Firm Name	Vanguard
Advisor	PRIMECAP Management Company
Manager Name	Multiple
Inception Date	12/9/2004
Fund Size (Mil)	10,655.00
Prospectus Net Expense Ratio	0.46
Firm Name	Vanguard
Web Address	www.vanguard.com

Key Information

Morningstar Rating Overall	★★★★
Morningstar Rating 3 Yr	★★★
Morningstar Return % Rank Cat 3 Yr	31
Morningstar Rating 5 Yr	★★★★
Morningstar Return % Rank Cat 5 Yr	13
Morningstar Rating 10 Yr	★★★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	6

Key Statistics

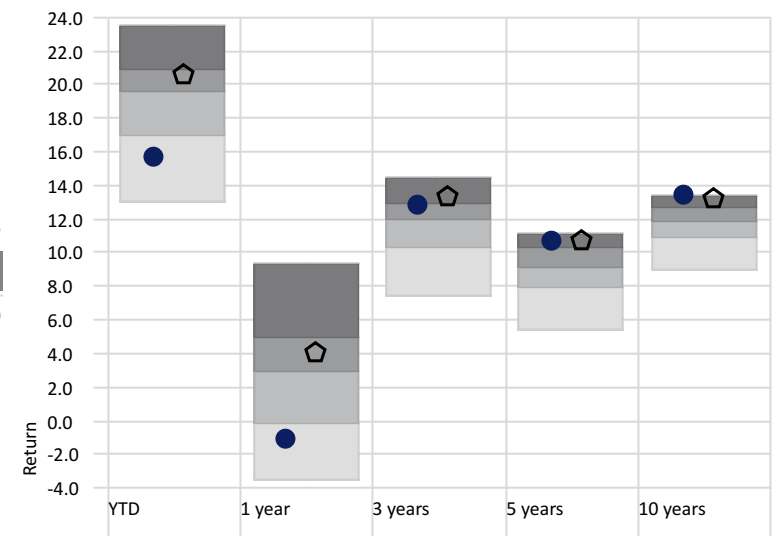
Arithmetic Mean 3 Yr (Mo-End)	1.10
Std Dev 3 Yr (Mo-End)	14.17
Alpha 3 Yr (Mo-End)	-1.62
Sharpe Ratio 3 Yr (Mo-End)	0.82
Arithmetic Mean 5 Yr (Mo-End)	0.93
Std Dev 5 Yr (Mo-End)	13.41
Alpha 5 Yr (Mo-End)	-0.66
Sharpe Ratio 5 Yr (Mo-End)	0.76

Investment Strategy

The investment seeks to provide long-term capital appreciation. The fund invests in stocks that its advisor believes offer a good balance between reasonable valuations and attractive growth prospects relative to their peers. Stocks selected for the fund typically have earnings growth potential that, in the advisor's view, is not reflected in their current market prices. It can invest in stocks across all industry sectors and market capitalizations.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Large Blend

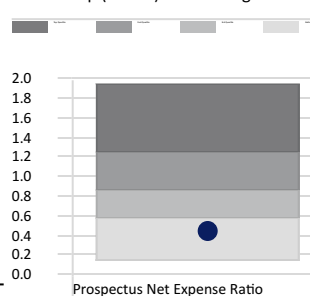


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Vanguard PRIMECAP Core Inv	15.73	-1.06	12.95	10.81	13.56
MSCI US Prime Market 750 GR USD	20.68	4.09	13.33	10.77	13.28
Median	19.52	2.88	11.97	9.09	11.84
5th Percentile	23.44	9.28	14.40	11.18	13.37
25th Percentile	20.82	4.97	12.95	10.25	12.63
50th Percentile	19.52	2.88	11.97	9.09	11.84
75th Percentile	16.94	-0.13	10.34	7.89	10.87
95th Percentile	13.04	-3.55	7.45	5.43	8.99

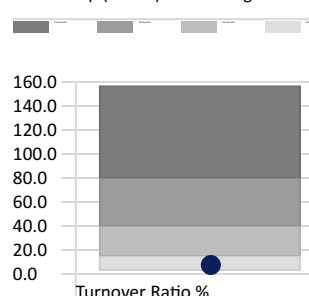
Expense vs Peer Group

Peer Group (5-95%): US OE Large Blend



Turnover vs Peer Group

Peer Group (5-95%): US OE Large Blend



Vanguard PRIMECAP Core Inv

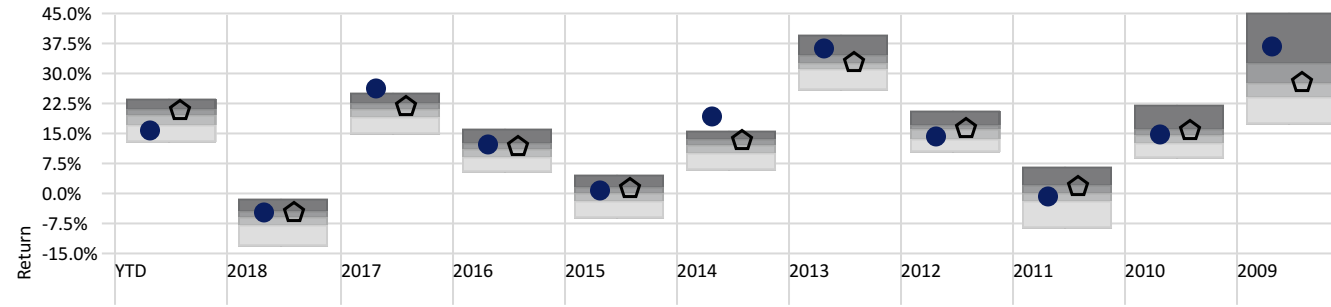
VPCCX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Large Blend Calculation Benchmark: MSCI US Prime Market 750 GR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



● Vanguard PRIMECAP Core Inv

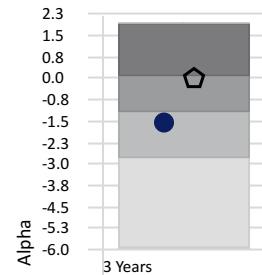
★ MSCI US Prime Market 750 GR USD

As of Date: 9/30/2019 Calculation Benchmark: MSCI US Prime Market 750 GR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Vanguard PRIMECAP Core Inv	15.73	-4.90	26.23	12.35	0.94	19.29	36.14	14.57	-0.86	14.88	36.96
MSCI US Prime Market 750 GR USD	20.68	-4.61	21.97	11.72	1.22	13.58	32.83	16.18	1.65	15.92	27.80
Count	1,316	1,260	1,174	1,111	1,048	998	944	897	856	815	770
25th Percentile	20.82	-4.60	22.12	12.18	1.23	13.22	34.45	16.94	1.79	15.85	32.27
50th Percentile	19.52	-6.01	20.88	10.60	-0.16	11.71	32.17	15.64	0.03	14.36	27.33
75th Percentile	16.94	-8.00	18.97	8.73	-2.39	10.04	30.63	13.50	-2.07	12.49	23.95

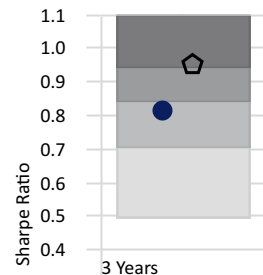
3 Yr Alpha

Peer Group (5-95%): US OE Large Blend



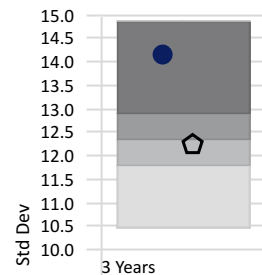
3 Yr Sharpe

Peer Group (5-95%): US OE Large Blend



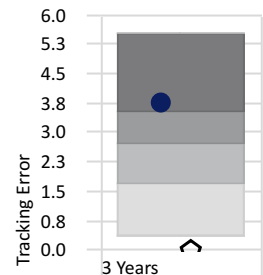
3 Yr Std Deviation

Peer Group (5-95%): US OE Large Blend



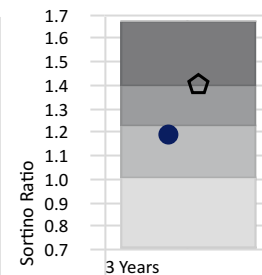
3 Yr Tracking Error

Peer Group (5-95%): US OE Large Blend



3 Yr Sortino

Peer Group (5-95%): US OE Large Blend



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Vanguard PRIMECAP Core Inv	14.17	0.82	-1.48	1.12	1.19	-0.10	58.33	3.81
MSCI US Prime Market 750 GR USD	12.27	0.95			1.41			

US OE Large Blend

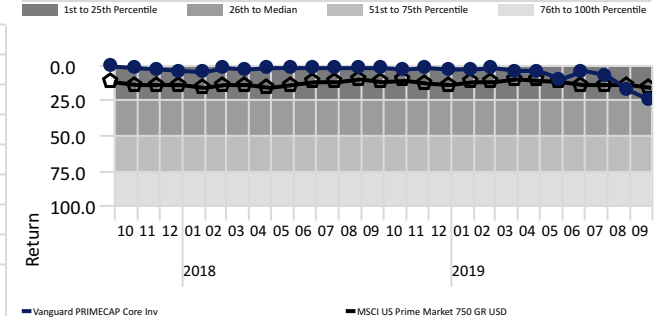
Vanguard PRIMECAP Core Inv	14.17	0.82	-1.48	1.12	1.19	-0.10	58.33	3.81
MSCI US Prime Market 750 GR USD	12.27	0.95			1.41			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

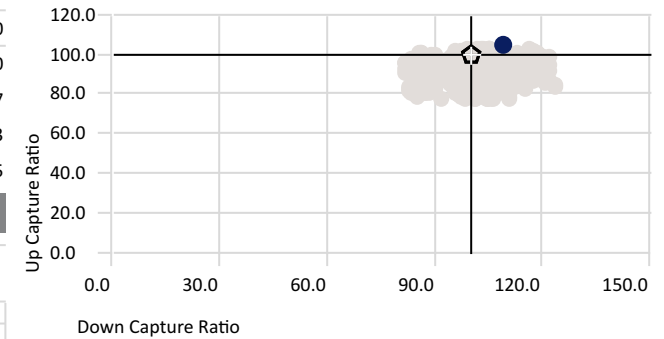
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: MSCI US Prime Market 750 GR USD



Up/Down Market Capture Ratio

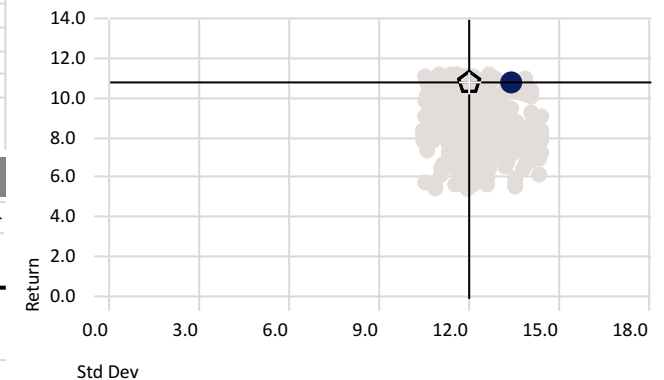
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: MSCI US Prime Market 750 GR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



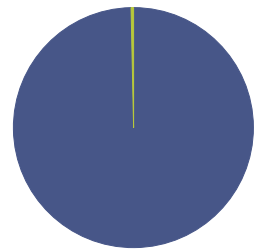
Vanguard Growth Index Admiral

VIGAX



Asset Allocation

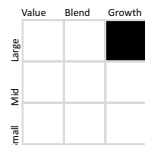
Portfolio Date: 9/30/2019



Stock	99.7	%
Bond	0.0	
Cash	0.3	
Other	0.0	
Total	100.0	

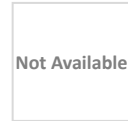
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	2.4	2.4
Consumer Cyclical %	17.4	17.4
Financial Services %	9.2	9.2
Real Estate %	5.4	5.4
Consumer Defensive %	3.7	3.7
Healthcare %	8.7	8.7
Utilities %	0.0	0.0
Communication Services %	2.5	2.5
Energy %	1.4	1.4
Industrials %	9.7	9.7
Technology %	39.6	39.6

Credit Quality

	Avg Eff Duration
	Avg Eff Maturity
	Avg Cred Qual
	Cred Qual AAA%
	Cred Qual AA%
	Cred Qual A%
	Cred Qual BBB %
	Cred Qual BB %
	Cred Qual B %
	Cred Qual Below B %

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
Microsoft Corp		7,823	2.76	8.47%
Apple Inc		6,713	14.98	7.27%
Amazon.com Inc		5,379	-11.57	5.83%
Facebook Inc A		3,157	-7.01	3.42%
Alphabet Inc A		2,695	7.76	2.92%
Alphabet Inc Class C		2,653	7.81	2.87%
Visa Inc Class A		2,190	-0.66	2.37%
The Home Depot Inc		1,873	9.21	2.03%
Mastercard Inc A		1,807	0.72	1.96%
Comcast Corp Class A		1,507	1.60	1.63%
Turnover Ratio %				11.00
% Asset in Top 10 Holdings				38.78

Key Information

Ticker	VIGAX
Morningstar Category	US Fund Large Growth
Firm Name	Vanguard
Advisor	Vanguard Group Inc
Manager Name	Multiple
Inception Date	11/13/2000
Fund Size (Mil)	92,059.63
Prospectus Net Expense Ratio	0.05
Firm Name	Vanguard
Web Address	www.vanguard.com

Key Information

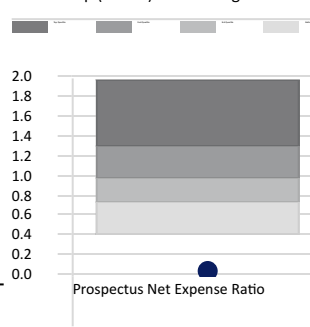
Morningstar Rating Overall	★★★★
Morningstar Rating 3 Yr	★★★
Morningstar Return % Rank Cat 3 Yr	40
Morningstar Rating 5 Yr	★★★
Morningstar Return % Rank Cat 5 Yr	36
Morningstar Rating 10 Yr	★★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	19

Key Statistics

Arithmetic Mean 3 Yr (Mo-End)	1.27
Std Dev 3 Yr (Mo-End)	13.27
Alpha 3 Yr (Mo-End)	1.40
Sharpe Ratio 3 Yr (Mo-End)	1.03
Arithmetic Mean 5 Yr (Mo-End)	1.03
Std Dev 5 Yr (Mo-End)	13.03
Alpha 5 Yr (Mo-End)	0.80
Sharpe Ratio 5 Yr (Mo-End)	0.87

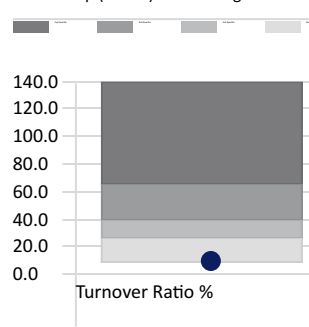
Expense vs Peer Group

Peer Group (5-95%): US OE Large Growth



Turnover vs Peer Group

Peer Group (5-95%): US OE Large Growth

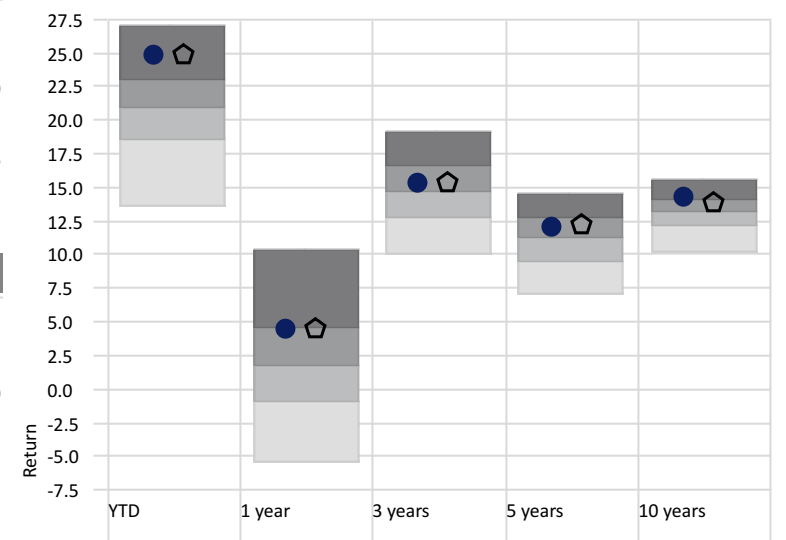


Investment Strategy

The investment seeks to track the performance of a benchmark index that measures the investment return of the CRSP US Large Cap Growth Index. The fund employs an indexing investment approach designed to track the performance of index, a broadly diversified index predominantly made up of growth stocks of large U.S. companies. The advisor attempts to replicate the target index by investing all, or substantially all, of its assets in the stocks that make up the index, holding each stock in approximately the same proportion as its weighting in the index. The fund is non-diversified.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Large Growth



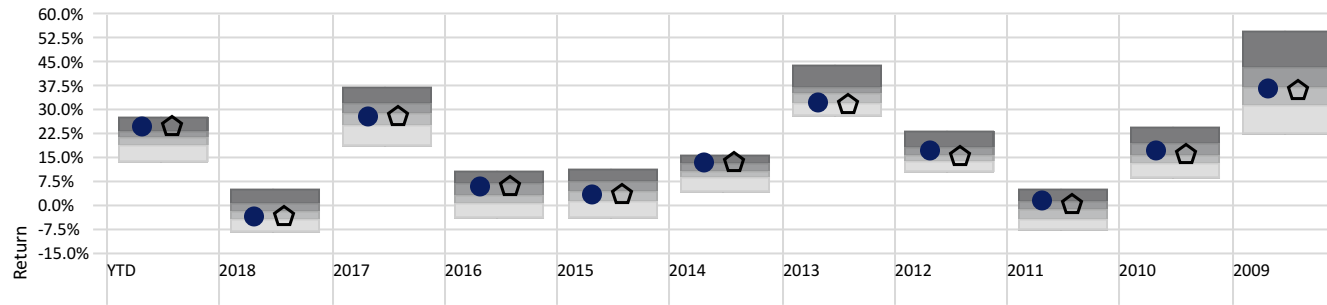
As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Vanguard Growth Index Admiral	24.88	4.52	15.38	12.19	14.38
CRSP US Large Cap Growth TR USD	24.94	4.55	15.42	12.24	13.87
Median	20.87	1.80	14.69	11.23	13.20
5th Percentile	27.00	10.33	19.08	14.58	15.58
25th Percentile	23.06	4.59	16.55	12.77	14.13
50th Percentile	20.87	1.80	14.69	11.23	13.20
75th Percentile	18.60	-0.95	12.75	9.50	12.12
95th Percentile	13.63	-5.33	10.12	7.03	10.15

Performance Relative to Peer Group

Peer Group (5-95%): US OE Large Growth Calculation Benchmark: CRSP US Large Cap Growth TR USD

■ Top Quartile ■ 2nd Quartile ■ 3rd Quartile ■ Bottom Quartile



● Vanguard Growth Index Admiral

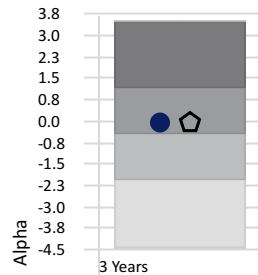
★ CRSP US Large Cap Growth TR USD

As of Date: 9/30/2019 Calculation Benchmark: CRSP US Large Cap Growth TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Vanguard Growth Index Admiral	24.88	-3.34	27.80	6.12	3.30	13.63	32.40	17.01	1.87	17.12	36.42
CRSP US Large Cap Growth TR USD	24.94	-3.34	27.86	6.16	3.38	13.69	31.75	15.20	0.58	15.77	35.92
Count	1,346	1,307	1,226	1,184	1,101	1,051	996	920	865	827	772
25th Percentile	23.06	0.48	31.84	6.62	7.00	12.78	37.00	18.10	1.28	19.11	43.24
50th Percentile	20.87	-2.07	28.30	3.15	4.06	10.54	34.58	15.72	-1.17	15.47	36.47
75th Percentile	18.60	-4.63	24.53	0.66	1.18	8.32	31.87	13.59	-4.42	12.86	31.02

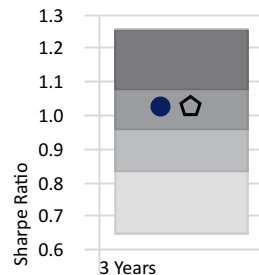
3 Yr Alpha

Peer Group (5-95%): US OE Large Growth



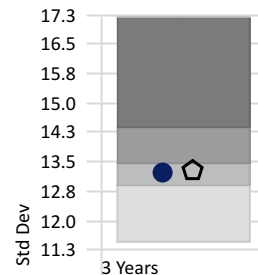
3 Yr Sharpe

Peer Group (5-95%): US OE Large Growth



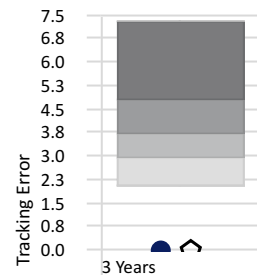
3 Yr Std Deviation

Peer Group (5-95%): US OE Large Growth



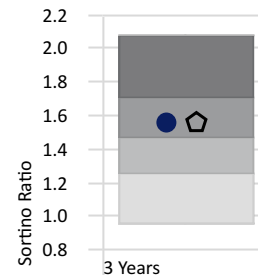
3 Yr Tracking Error

Peer Group (5-95%): US OE Large Growth



3 Yr Sortino

Peer Group (5-95%): US OE Large Growth



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Vanguard Growth Index Admiral	13.27	1.03	-0.02	1.00	1.56	-1.25	36.11	0.03
CRSP US Large Cap Growth TR USD	13.28	1.03			1.56			

US OE Large Growth

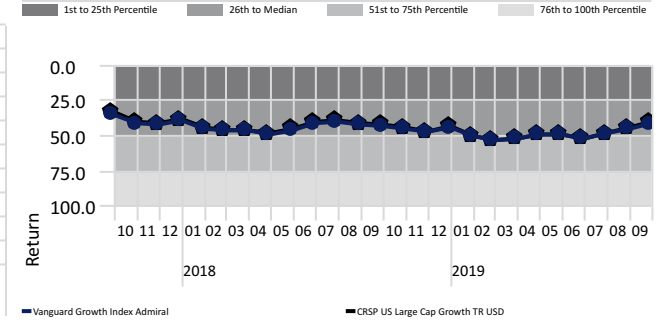
Vanguard Growth Index Admiral	13.27	1.03	-0.02	1.00	1.56	-1.25	36.11	0.03
CRSP US Large Cap Growth TR USD	13.28	1.03			1.56			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

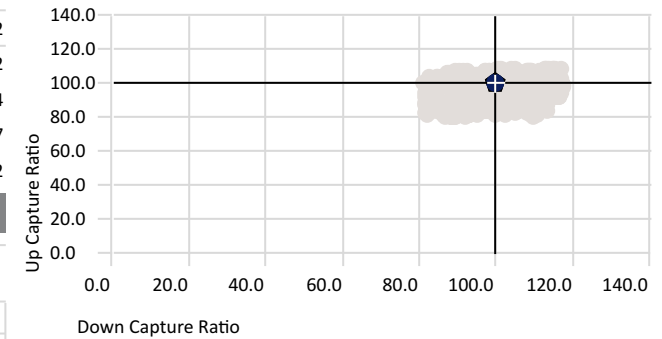
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: CRSP US Large Cap Growth TR USD



Up/Down Market Capture Ratio

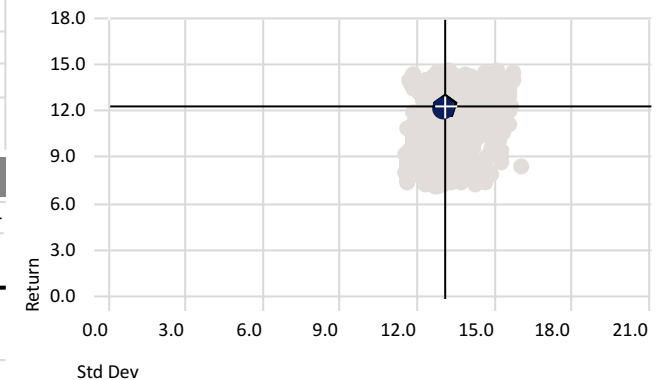
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: CRSP US Large Cap Growth TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



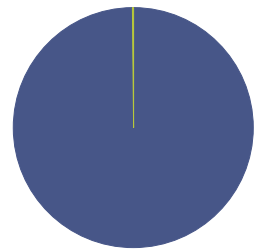
Vanguard Mid-Cap Value Index Admiral

VMVAX



Asset Allocation

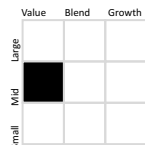
Portfolio Date: 9/30/2019



• Stock	99.8	%
• Bond	0.0	
• Cash	0.2	
• Other	0.0	
Total	100.0	

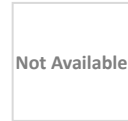
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	5.9	5.9
Consumer Cyclical %	18.8	18.8
Financial Services %	19.3	19.3
Real Estate %	7.1	7.1
Consumer Defensive %	4.8	4.8
Healthcare %	6.5	6.5
Utilities %	14.0	14.0
Communication Services %	1.9	1.9
Energy %	3.3	3.3
Industrials %	7.5	7.5
Technology %	11.0	11.0

Credit Quality

	Avg Eff Duration
	Avg Eff Maturity
	Avg Cred Qual
	Cred Qual AAA%
	Cred Qual AA%
	Cred Qual A%
	Credit Qual BBB %
	Credit Qual BB %
	Credit Qual B %
	Credit Qual Below B %

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
Newmont Goldcorp Corp		289	-1.86	1.47%
WEC Energy Group Inc		278	8.37	1.42%
Motorola Solutions Inc		262	1.05	1.34%
Eversource Energy		257	10.41	1.31%
FirstEnergy Corp		238	10.63	1.22%
Willis Towers Watson PLC		231	-4.18	1.18%
DTE Energy Co		226	0.51	1.16%
Entergy Corp		217	11.51	1.11%
American Water Works Co Inc		208	5.50	1.06%
The Hartford Financial Services Group Inc		203	1.98	1.04%
Turnover Ratio %				17.00
% Asset in Top 10 Holdings				12.31

Key Information

Ticker	VMVAX
Morningstar Category	US Fund Mid-Cap Value
Firm Name	Vanguard
Advisor	Vanguard Group Inc
Manager Name	Multiple
Inception Date	9/27/2011
Fund Size (Mil)	19,610.09
Prospectus Net Expense Ratio	0.07
Firm Name	Vanguard
Web Address	www.vanguard.com

Key Information

Morningstar Rating Overall	★★★★
Morningstar Rating 3 Yr	★★★★
Morningstar Return % Rank Cat 3 Yr	20
Morningstar Rating 5 Yr	★★★★
Morningstar Return % Rank Cat 5 Yr	16
Morningstar Rating 10 Yr	
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	

Key Statistics

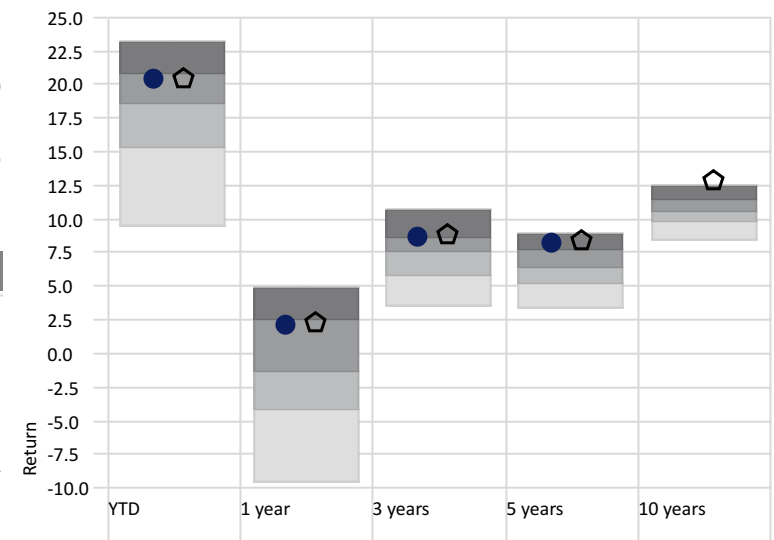
Arithmetic Mean 3 Yr (Mo-End)	0.79
Std Dev 3 Yr (Mo-End)	13.75
Alpha 3 Yr (Mo-End)	-4.78
Sharpe Ratio 3 Yr (Mo-End)	0.57
Arithmetic Mean 5 Yr (Mo-End)	0.74
Std Dev 5 Yr (Mo-End)	12.88
Alpha 5 Yr (Mo-End)	-2.39
Sharpe Ratio 5 Yr (Mo-End)	0.61

Investment Strategy

The investment seeks to track the performance of the CRSP US Mid Cap Value Index that measures the investment return of mid-capitalization value stocks. The fund employs an indexing investment approach designed to track the performance of the CRSP US Mid Cap Value Index, a broadly diversified index of value stocks of mid-size U.S. companies. The advisor attempts to replicate the target index by investing all, or substantially all, of its assets in the stocks that make up the index, holding each stock in approximately the same proportion as its weighting in the index.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Mid Cap Value

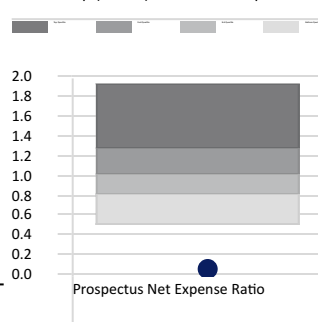


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Vanguard Mid-Cap Value Index Admiral	20.43	2.30	8.83	8.37	
CRSP US Mid Cap Value TR USD	20.49	2.34	8.87	8.41	12.97
Median	18.62	-1.35	7.57	6.43	10.57
5th Percentile	23.13	4.88	10.65	8.96	12.53
25th Percentile	20.83	2.46	8.62	7.78	11.38
50th Percentile	18.62	-1.35	7.57	6.43	10.57
75th Percentile	15.28	-4.24	5.77	5.17	9.78
95th Percentile	9.53	-9.53	3.57	3.39	8.51

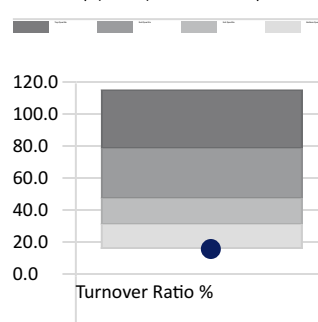
Expense vs Peer Group

Peer Group (5-95%): US OE Mid Cap Value



Turnover vs Peer Group

Peer Group (5-95%): US OE Mid Cap Value



Vanguard Mid-Cap Value Index Admiral

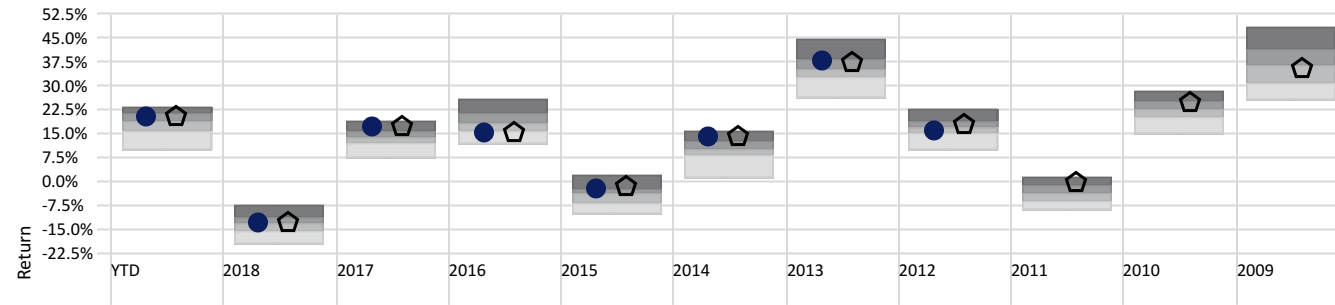
VMVAX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Mid Cap Value Calculation Benchmark: CRSP US Mid Cap Value TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



● Vanguard Mid-Cap Value Index Admiral

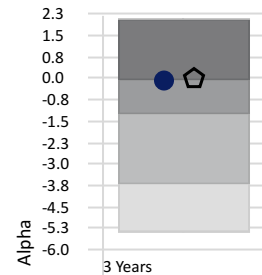
★ CRSP US Mid Cap Value TR USD

As of Date: 9/30/2019 Calculation Benchmark: CRSP US Mid Cap Value TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Vanguard Mid-Cap Value Index Admiral	20.43	-12.42	17.04	15.26	-1.80	13.98	37.66	16.02			
CRSP US Mid Cap Value TR USD	20.49	-12.42	17.12	15.28	-1.75	14.05	37.38	17.90	-0.39	24.58	35.21
Count	389	381	350	335	316	289	275	261	236	217	202
25th Percentile	20.83	-11.68	15.31	21.21	-2.48	12.32	37.64	18.50	-1.65	25.06	41.23
50th Percentile	18.62	-13.60	13.26	17.96	-4.15	9.64	34.88	16.44	-4.04	22.03	36.14
75th Percentile	15.28	-15.77	11.55	15.16	-6.87	7.64	32.13	14.84	-6.49	20.05	30.31

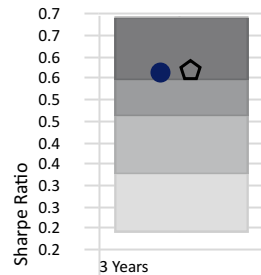
3 Yr Alpha

Peer Group (5-95%): US OE Mid Cap Value



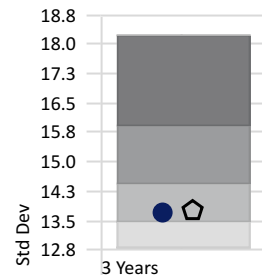
3 Yr Sharpe

Peer Group (5-95%): US OE Mid Cap Value



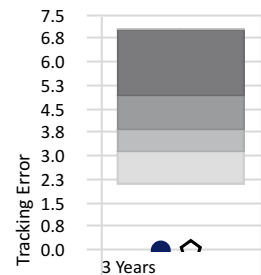
3 Yr Std Deviation

Peer Group (5-95%): US OE Mid Cap Value



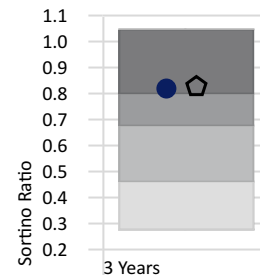
3 Yr Tracking Error

Peer Group (5-95%): US OE Mid Cap Value



3 Yr Sortino

Peer Group (5-95%): US OE Mid Cap Value



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Vanguard Mid-Cap Value Index Admiral	13.75	0.57	-0.03	1.00	0.83	-1.13	41.67	0.04
CRSP US Mid Cap Value TR USD	13.76	0.57			0.83			

US OE Mid-Cap Value

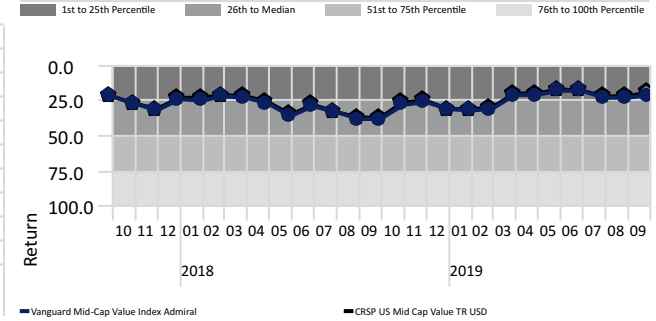
Vanguard Mid-Cap Value Index Admiral	13.75	0.57	-0.03	1.00	0.83	-1.13	41.67	0.04
CRSP US Mid Cap Value TR USD	13.76	0.57			0.83			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

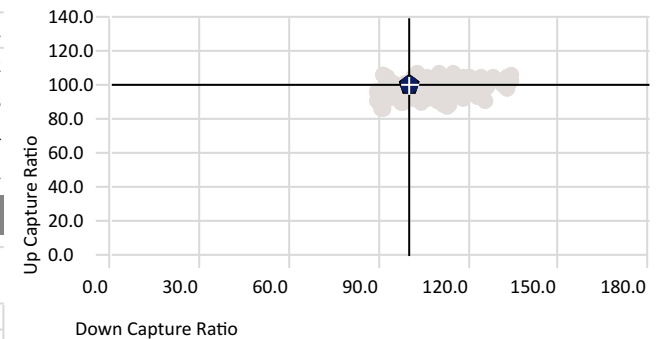
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: CRSP US Mid Cap Value TR USD



Up/Down Market Capture Ratio

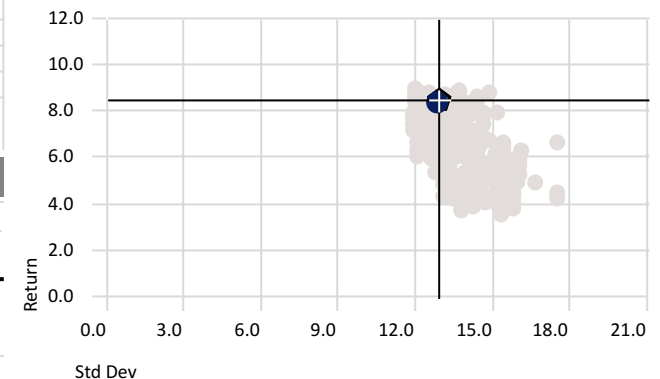
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: CRSP US Mid Cap Value TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



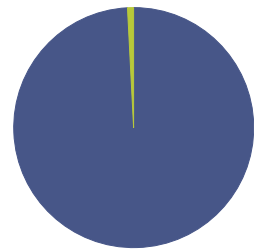
Vanguard Mid Cap Index Admiral

VIMAX



Asset Allocation

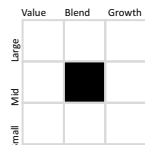
Portfolio Date: 9/30/2019



Stock	99.2	%
Bond	0.0	
Cash	0.8	
Other	0.0	
Total	100.0	

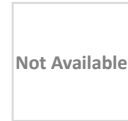
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	4.6	4.6
Consumer Cyclical %	14.8	14.8
Financial Services %	12.4	12.5
Real Estate %	9.8	9.7
Consumer Defensive %	4.3	4.4
Healthcare %	9.8	9.8
Utilities %	7.2	7.2
Communication Services %	1.4	1.4
Energy %	4.3	4.3
Industrials %	11.9	11.8
Technology %	19.6	19.6

Credit Quality

	Avg Eff Duration
	Avg Eff Maturity
	Avg Cred Qual
	Cred Qual AAA%
	Cred Qual AA%
	Cred Qual A%
	Cred Qual BBB %
	Cred Qual BB %
	Cred Qual B %
	Cred Qual Below B %

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
Cmt Market Liquidity Rate		840	-0.79%	0.79%
Advanced Micro Devices Inc		793	-8.98	0.75%
Newmont Goldcorp Corp		783	-1.86	0.74%
ONEOK Inc		766	-1.15	0.73%
Twitter Inc		762	5.05	0.72%
WEC Energy Group Inc		755	8.37	0.71%
Amphenol Corp Class A		723	1.21	0.68%
Motorola Solutions Inc		710	1.05	0.67%
Eversource Energy		697	10.41	0.66%
SBA Communications Corp		687	0.43	0.65%
Turnover Ratio %			16.00	
% Asset in Top 10 Holdings			6.96	

Source: Morningstar Direct

Key Information

Ticker	VIMAX
Morningstar Category	US Fund Mid-Cap Blend
Firm Name	Vanguard
Advisor	Vanguard Group Inc
Manager Name	Multiple
Inception Date	11/12/2001
Fund Size (Mil)	105,404.44
Prospectus Net Expense Ratio	0.05
Firm Name	Vanguard
Web Address	www.vanguard.com

Key Information

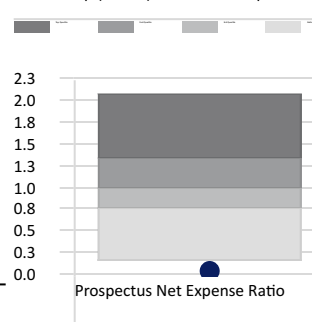
Morningstar Rating Overall	★★★★★
Morningstar Rating 3 Yr	★★★★
Morningstar Return % Rank Cat 3 Yr	20
Morningstar Rating 5 Yr	★★★★
Morningstar Return % Rank Cat 5 Yr	15
Morningstar Rating 10 Yr	★★★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	8

Key Statistics

Arithmetic Mean 3 Yr (Mo-End)	0.92
Std Dev 3 Yr (Mo-End)	13.30
Alpha 3 Yr (Mo-End)	-3.01
Sharpe Ratio 3 Yr (Mo-End)	0.71
Arithmetic Mean 5 Yr (Mo-End)	0.80
Std Dev 5 Yr (Mo-End)	12.77
Alpha 5 Yr (Mo-End)	-1.70
Sharpe Ratio 5 Yr (Mo-End)	0.68

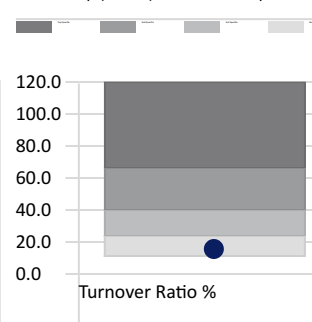
Expense vs Peer Group

Peer Group (5-95%): US OE Mid Cap Blend



Turnover vs Peer Group

Peer Group (5-95%): US OE Mid Cap Blend

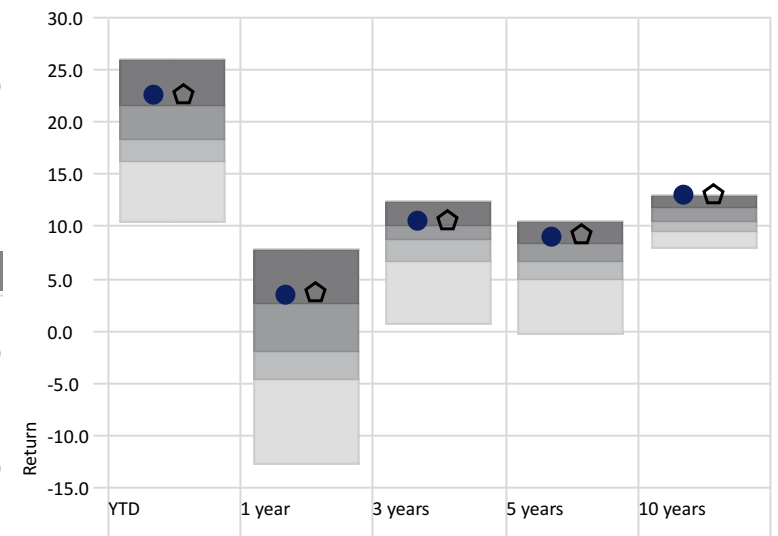


Investment Strategy

The investment seeks to track the performance of a benchmark index that measures the investment return of mid-capitalization stocks. The fund employs an indexing investment approach designed to track the performance of the CRSP US Mid Cap Index, a broadly diversified index of stocks of mid-size U.S. companies. The advisor attempts to replicate the target index by investing all, or substantially all, of its assets in the stocks that make up the index, holding each stock in approximately the same proportion as its weighting in the index.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Mid Cap Blend



As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Vanguard Mid Cap Index Admiral	22.60	3.65	10.67	9.20	13.05
CRSP US Mid Cap TR USD	22.66	3.70	10.70	9.24	13.14
Median	18.27	-1.93	8.77	6.56	10.52
5th Percentile	25.84	7.81	12.42	10.50	12.99
25th Percentile	21.49	2.59	10.12	8.29	11.79
50th Percentile	18.27	-1.93	8.77	6.56	10.52
75th Percentile	16.12	-4.63	6.71	4.96	9.55
95th Percentile	10.39	-12.73	0.81	-0.20	7.88

Vanguard Mid Cap Index Admiral

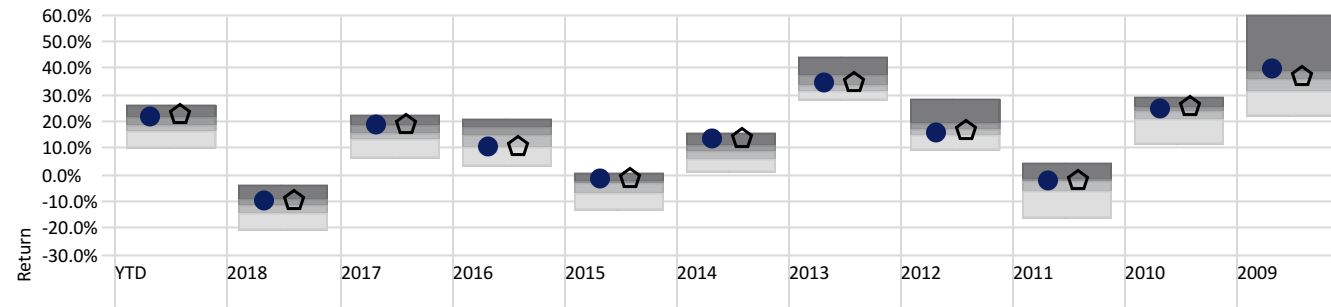
VIMAX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Mid Cap Blend Calculation Benchmark: CRSP US Mid Cap TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



● Vanguard Mid Cap Index Admiral

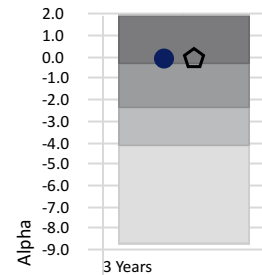
★ CRSP US Mid Cap TR USD

As of Date: 9/30/2019 Calculation Benchmark: CRSP US Mid Cap TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Vanguard Mid Cap Index Admiral	22.60	-9.23	19.25	11.22	-1.34	13.76	35.15	15.99	-1.97	25.59	40.48
CRSP US Mid Cap TR USD	22.66	-9.22	19.30	11.25	-1.28	13.83	35.27	16.69	-1.79	26.16	36.90
Count	391	381	354	314	289	277	258	237	219	213	198
25th Percentile	21.49	-9.21	18.22	18.01	-2.31	11.06	37.34	18.98	-1.39	25.61	38.61
50th Percentile	18.27	-11.42	15.88	14.61	-3.38	9.11	33.84	17.37	-2.82	23.75	35.91
75th Percentile	16.12	-14.52	13.27	10.14	-7.07	5.88	31.24	14.54	-5.95	20.95	31.18

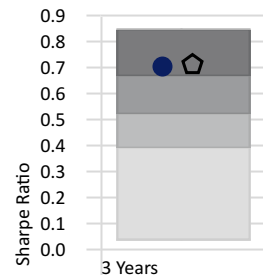
3 Yr Alpha

Peer Group (5-95%): US OE Mid Cap Blend



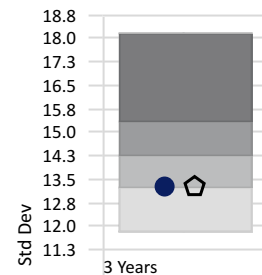
3 Yr Sharpe

Peer Group (5-95%): US OE Mid Cap Blend



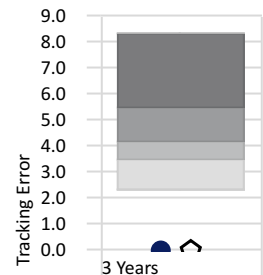
3 Yr Std Deviation

Peer Group (5-95%): US OE Mid Cap Blend



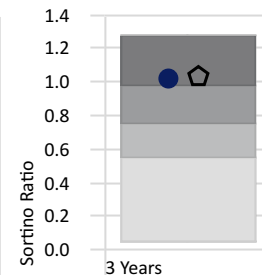
3 Yr Tracking Error

Peer Group (5-95%): US OE Mid Cap Blend



3 Yr Sortino

Peer Group (5-95%): US OE Mid Cap Blend



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Vanguard Mid Cap Index Admiral	13.30	0.71	-0.03	1.00	1.03	-1.50	38.89	0.02
CRSP US Mid Cap TR USD	13.30	0.71			1.04			

US OE Mid-Cap Blend

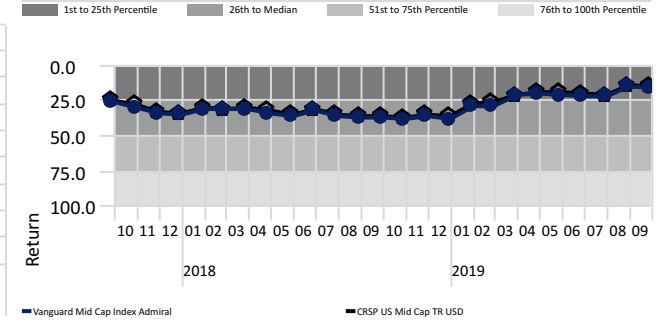
Vanguard Mid Cap Index Admiral	13.30	0.71	-0.03	1.00	1.03	-1.50	38.89	0.02
CRSP US Mid Cap TR USD	13.30	0.71			1.04			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

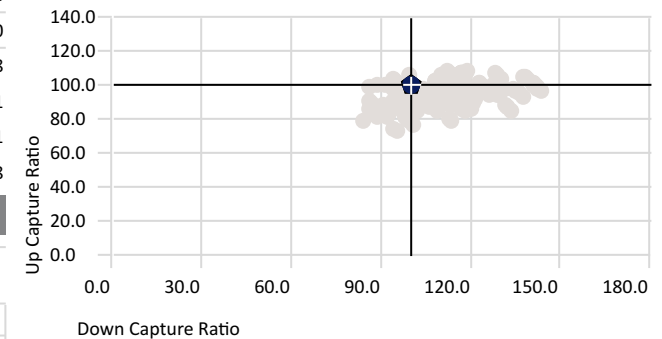
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: CRSP US Mid Cap TR USD



Up/Down Market Capture Ratio

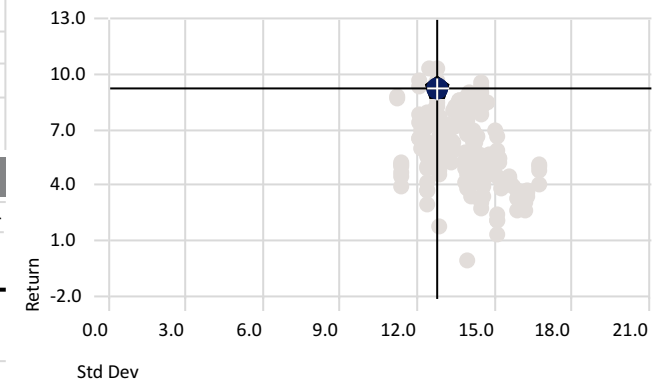
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: CRSP US Mid Cap TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



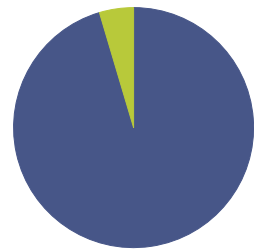
Janus Henderson Small Cap Value I

JSCOX



Asset Allocation

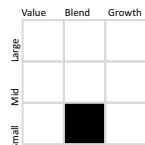
Portfolio Date: 6/30/2019



• Stock	95.4	%
• Bond	0.0	
• Cash	4.6	
• Other	0.0	
Total	100.0	

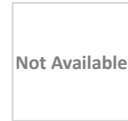
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	5.4	4.5
Consumer Cyclical %	15.8	9.0
Financial Services %	32.9	27.0
Real Estate %	9.1	14.8
Consumer Defensive %	7.1	3.5
Healthcare %	1.0	3.6
Utilities %	3.6	7.6
Communication Services %	0.0	1.0
Energy %	4.4	3.9
Industrials %	13.9	12.9
Technology %	6.7	12.1

Credit Quality

	Avg Eff Duration
	Avg Eff Maturity
	Avg Cred Qual
	Cred Qual AAA%
	Cred Qual AA%
	Cred Qual A%
	Cred Qual BBB %
	Cred Qual BB %
	Cred Qual B %
	Cred Qual Below B %

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
UniFirst Corp		126	6.10	3.92%
The Hanover Insurance Group Inc		93	4.68	2.88%
Cedar Fair LP		88	16.35	2.73%
Nomad Foods Ltd		84	-13.32	2.61%
Equity Commonwealth		76	5.53	2.37%
Argo Group International Holdings Ltd		75	-5.91	2.35%
Atlantic Union Bankshares Corp		71	6.19	2.21%
Black Hills Corp		71	-2.58	2.20%
Stag Industrial Inc		69	-0.33	2.14%
Cadence Bancorp Class A		68	-9.28	2.13%
Turnover Ratio %				39.00
% Asset in Top 10 Holdings				25.52

Key Information

Ticker	JSCOX
Morningstar Category	US Fund Small Value
Firm Name	Janus Henderson
Advisor	Janus Capital Management LLC
Manager Name	Multiple
Inception Date	7/6/2009
Fund Size (Mil)	3,398.35
Prospectus Net Expense Ratio	0.88
Firm Name	Janus Henderson
Web Address	janushenderson.com

Key Information

Morningstar Rating Overall	★★★★★
Morningstar Rating 3 Yr	★★★★★
Morningstar Return % Rank Cat 3 Yr	7
Morningstar Rating 5 Yr	★★★★★
Morningstar Return % Rank Cat 5 Yr	3
Morningstar Rating 10 Yr	★★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	11

Key Statistics

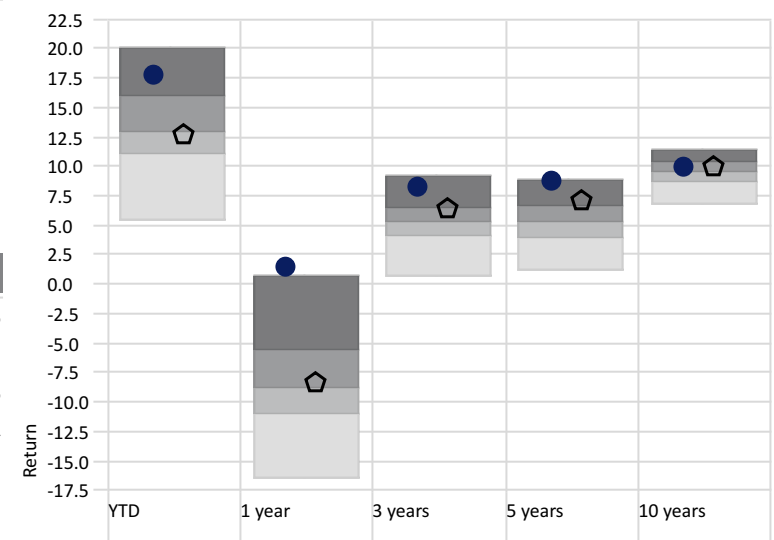
Arithmetic Mean 3 Yr (Mo-End)	0.76
Std Dev 3 Yr (Mo-End)	13.93
Alpha 3 Yr (Mo-End)	-4.06
Sharpe Ratio 3 Yr (Mo-End)	0.54
Arithmetic Mean 5 Yr (Mo-End)	0.78
Std Dev 5 Yr (Mo-End)	12.95
Alpha 5 Yr (Mo-End)	-1.00
Sharpe Ratio 5 Yr (Mo-End)	0.64

Investment Strategy

The investment seeks capital appreciation. The fund pursues its investment objective by investing primarily in the common stocks of small companies whose stock prices are believed to be undervalued by the fund's portfolio managers. It invests, under normal circumstances, at least 80% of its net assets (plus any borrowings for investment purposes) in equity securities of small companies whose market capitalization, at the time of initial purchase, is less than the 12-month average of the maximum market capitalization for companies included in the Russell 2000® Value Index. The fund may invest up to 20% of its net assets in cash or similar investments.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Small Value

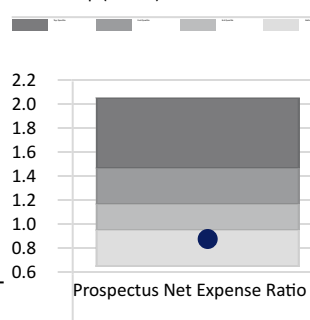


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Janus Henderson Small Cap Value I	17.88	1.49	8.44	8.83	10.11
Russell 2000 Value TR USD	12.82	-8.24	6.54	7.17	10.06
Median	12.92	-8.79	5.31	5.32	9.62
5th Percentile	20.07	0.76	9.18	8.95	11.45
25th Percentile	15.97	-5.54	6.40	6.66	10.39
50th Percentile	12.92	-8.79	5.31	5.32	9.62
75th Percentile	11.03	-11.05	4.07	4.01	8.68
95th Percentile	5.44	-16.36	0.64	1.25	6.80

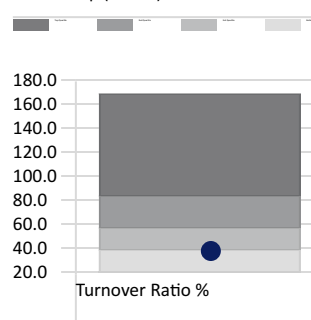
Expense vs Peer Group

Peer Group (5-95%): US OE Small Value



Turnover vs Peer Group

Peer Group (5-95%): US OE Small Value



Janus Henderson Small Cap Value I

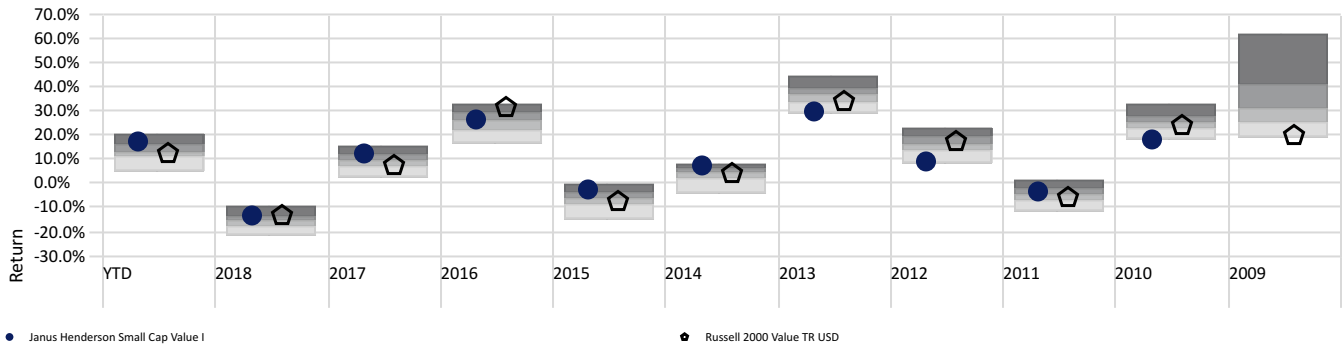
JSCOX



Performance Relative to Peer Group

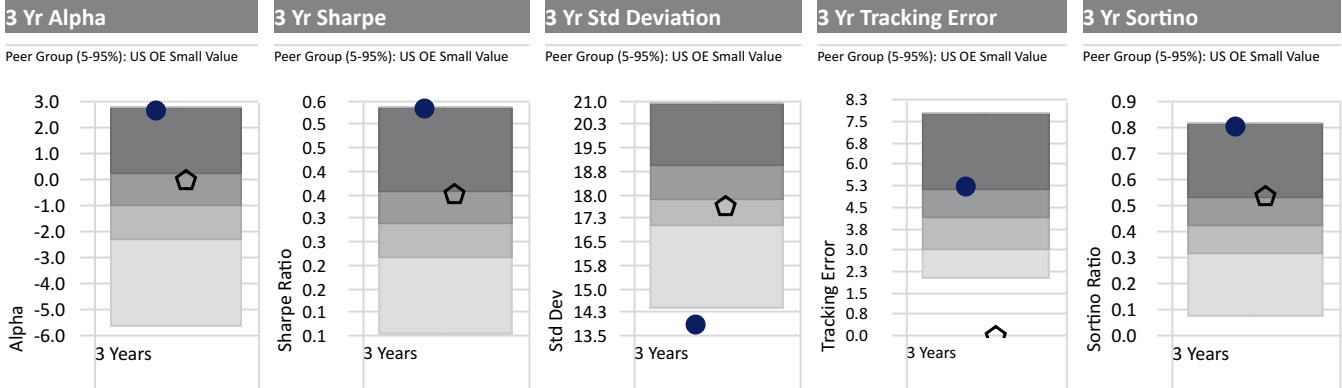
Peer Group (5-95%): US OE Small Value Calculation Benchmark: Russell 2000 Value TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



As of Date: 9/30/2019 Calculation Benchmark: Russell 2000 Value TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Janus Henderson Small Cap Value I	17.88	-13.04	12.81	26.45	-2.56	7.42	29.82	9.13	-3.28	18.13	
Russell 2000 Value TR USD	12.82	-12.86	7.84	31.74	-7.47	4.22	34.52	18.05	-5.50	24.50	20.58
Count	404	388	370	353	333	311	290	277	253	231	214
25th Percentile	15.97	-13.43	11.67	29.28	-3.73	5.84	39.38	18.97	-2.24	27.48	40.54
50th Percentile	12.92	-15.78	9.05	25.68	-6.28	4.21	36.40	15.91	-4.30	25.40	31.23
75th Percentile	11.03	-18.10	6.63	21.66	-8.38	2.11	33.12	13.37	-6.73	22.97	25.13



Performance Reporting

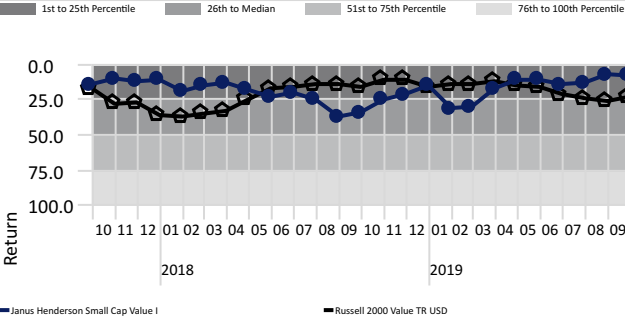
	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
US OE Small Value								
Janus Henderson Small Cap Value I	13.93	0.54	2.66	0.77	0.81	0.36	58.33	5.23
Russell 2000 Value TR USD	17.67	0.35			0.54			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

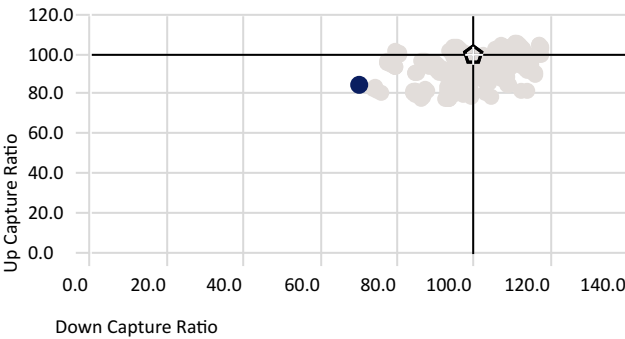
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: Russell 2000 Value TR USD



Up/Down Market Capture Ratio

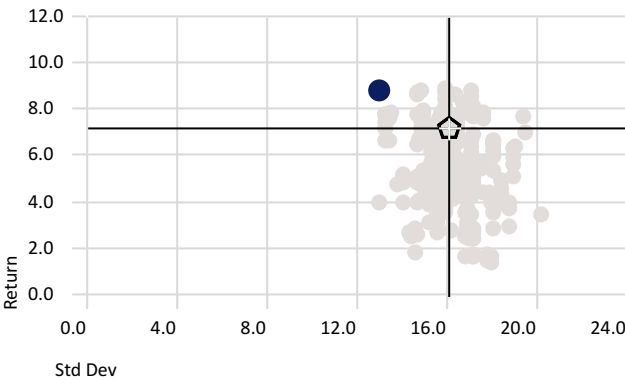
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: Russell 2000 Value TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



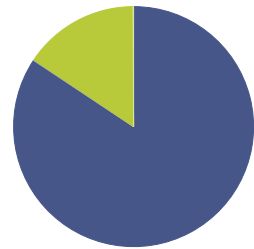
Federated Kaufmann Small Cap Instl

FKAIX



Asset Allocation

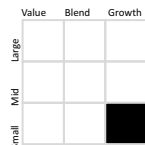
Portfolio Date: 6/30/2019



• Stock	84.3	%
• Bond	0.1	
• Cash	15.5	
• Other	0.1	
Total	100.0	

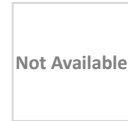
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	2.8	5.8
Consumer Cyclical %	11.8	15.1
Financial Services %	5.3	7.1
Real Estate %	7.9	3.2
Consumer Defensive %	2.5	3.8
Healthcare %	30.0	23.9
Utilities %	0.1	0.5
Communication Services %	0.2	1.3
Energy %	0.9	1.6
Industrials %	8.7	16.2
Technology %	29.7	21.4

Credit Quality

	Avg Eff Duration
	Avg Eff Maturity
	Avg Cred Qual
	Cred Qual AAA%
	Cred Qual AA%
	Cred Qual A%
	Credit Qual BBB %
	Credit Qual BB %
	Credit Qual B %
	Credit Qual Below B %

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
Federated Instl Prime Value Obligs Instl		491	0.54	15.53%
argenx SE ADR		48	-21.62	1.51%
argenx SE		43	-22.22	1.36%
Azul SA ADR		39	-7.30	1.23%
uniQure NV		38	-37.49	1.21%
Ryman Hospitality Properties Inc		37	9.20	1.18%
Planet Fitness Inc A		37	-21.65	1.16%
Veeva Systems Inc Class A		36	-12.37	1.13%
Hamilton Lane Inc Class A		36	-3.64	1.13%
Smartsheet Inc Class A		34	-27.30	1.07%
Turnover Ratio %				39.00
% Asset in Top 10 Holdings				12.02

Source: Morningstar Direct

Key Information

Ticker	FKAIX
Morningstar Category	US Fund Small Growth
Firm Name	Federated
Advisor	Federated Equity Mgmt Co. Of Penn
Manager Name	Multiple
Inception Date	12/30/2015
Fund Size (Mil)	3,562.57
Prospectus Net Expense Ratio	0.91
Firm Name	Federated
Web Address	www.federatedinvestors.com

Key Information

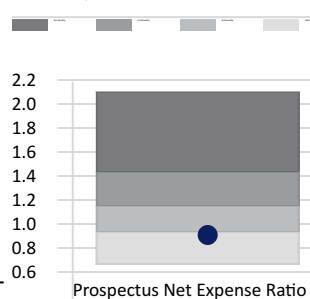
Morningstar Rating Overall	★★★★★
Morningstar Rating 3 Yr	★★★★★
Morningstar Return % Rank Cat 3 Yr	0
Morningstar Rating 5 Yr	
Morningstar Return % Rank Cat 5 Yr	
Morningstar Rating 10 Yr	
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	

Key Statistics

Arithmetic Mean 3 Yr (Mo-End)	1.72
Std Dev 3 Yr (Mo-End)	16.27
Alpha 3 Yr (Mo-End)	6.35
Sharpe Ratio 3 Yr (Mo-End)	1.17
Arithmetic Mean 5 Yr (Mo-End)	
Std Dev 5 Yr (Mo-End)	
Alpha 5 Yr (Mo-End)	
Sharpe Ratio 5 Yr (Mo-End)	

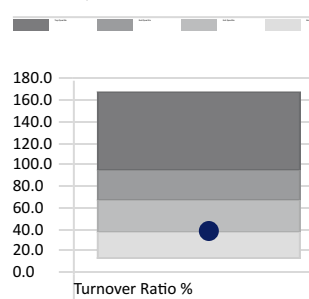
Expense vs Peer Group

Peer Group (5-95%): US OE Small Growth



Turnover vs Peer Group

Peer Group (5-95%): US OE Small Growth

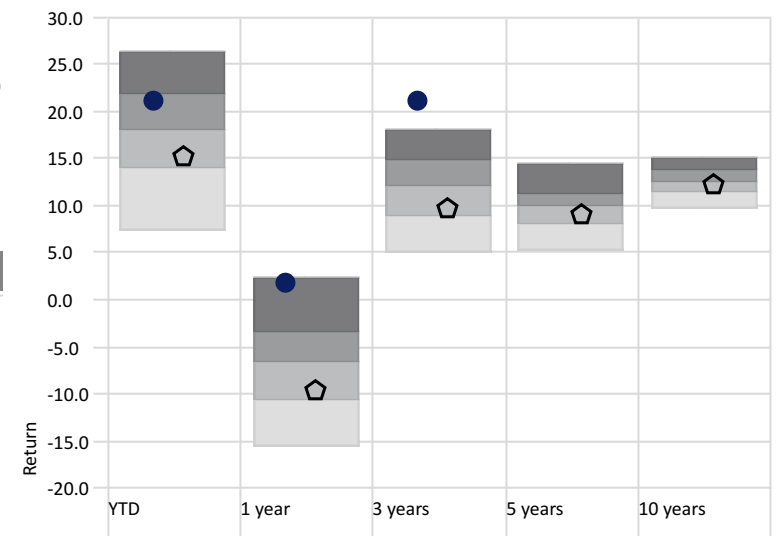


Investment Strategy

The investment seeks to provide capital appreciation. The fund invests primarily in the common stocks of small companies that are traded on national security exchanges, the NASDAQ stock market and on the over-the-counter market. It will normally invest at least 80% of its net assets (which include the amount of any borrowing for investment purposes) in small companies and will notify shareholders at least 60 days in advance of any change in its investment policies that would permit the fund to normally invest less than 80% of its net assets in investments in small companies.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Small Growth



As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Federated Kaufmann Small Cap Instl	21.18	1.91	21.16		
Russell 2000 Growth TR USD	15.34	-9.63	9.79	9.08	12.25
Median	18.09	-6.50	12.18	9.91	12.62
5th Percentile	26.29	2.28	17.99	14.54	14.98
25th Percentile	21.90	-3.38	14.86	11.36	13.75
50th Percentile	18.09	-6.50	12.18	9.91	12.62
75th Percentile	14.08	-10.61	9.02	8.13	11.44
95th Percentile	7.53	-15.49	5.04	5.21	9.86

Federated Kaufmann Small Cap Instl

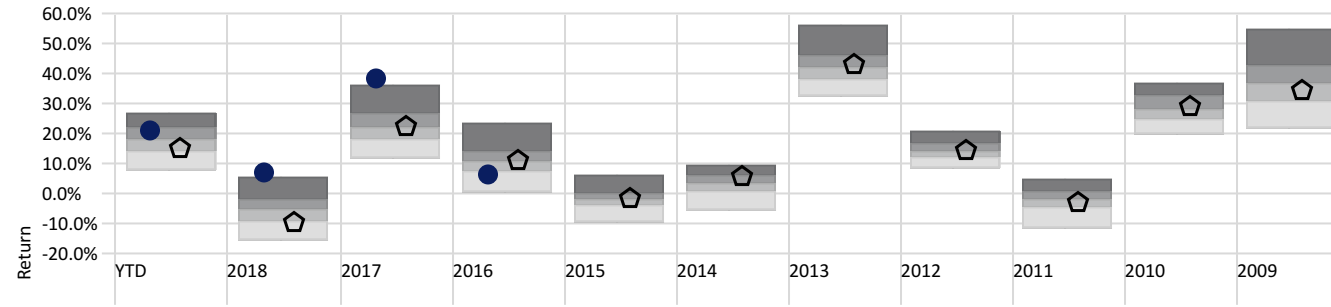
FKAIX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Small Growth Calculation Benchmark: Russell 2000 Growth TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



Federated Kaufmann Small Cap Instl

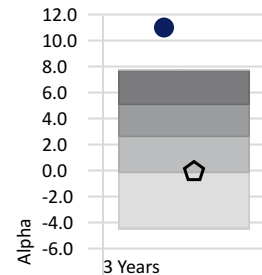
Russell 2000 Growth TR USD

As of Date: 9/30/2019 Calculation Benchmark: Russell 2000 Growth TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Federated Kaufmann Small Cap Instl	21.18	7.40	38.46	6.27							
Russell 2000 Growth TR USD	15.34	-9.31	22.17	11.32	-1.38	5.60	43.30	14.59	-2.91	29.09	34.47
Count	650	630	578	547	519	490	468	435	415	396	374
25th Percentile	21.90	-1.91	26.41	13.95	-0.09	5.85	45.54	16.24	0.56	32.45	42.25
50th Percentile	18.09	-5.34	22.10	10.14	-2.19	3.21	41.80	14.09	-2.00	27.73	36.22
75th Percentile	14.08	-9.23	17.96	7.17	-4.35	0.49	37.79	11.86	-5.17	24.56	30.72

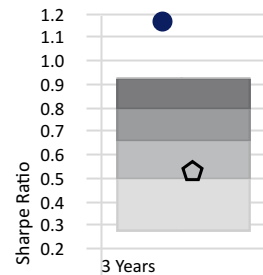
3 Yr Alpha

Peer Group (5-95%): US OE Small Growth



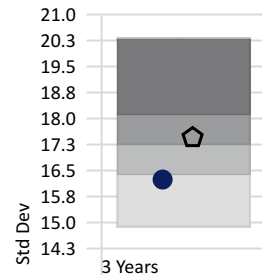
3 Yr Sharpe

Peer Group (5-95%): US OE Small Growth



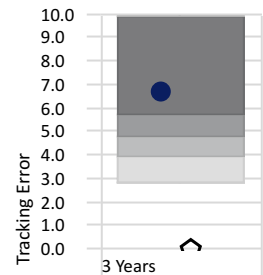
3 Yr Std Deviation

Peer Group (5-95%): US OE Small Growth



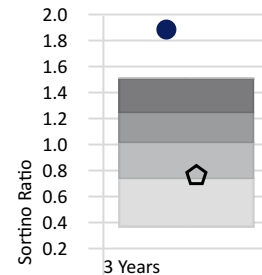
3 Yr Tracking Error

Peer Group (5-95%): US OE Small Growth



3 Yr Sortino

Peer Group (5-95%): US OE Small Growth



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years

US OE Small Growth

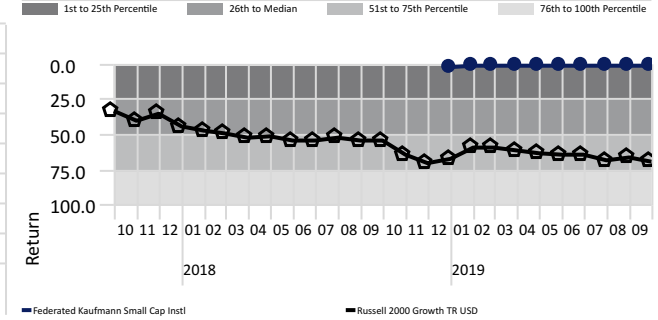
Federated Kaufmann Small Cap Instl	16.27	1.17	11.07	0.86	1.90	1.68	69.44	6.77
Russell 2000 Growth TR USD	17.47	0.53			0.76			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

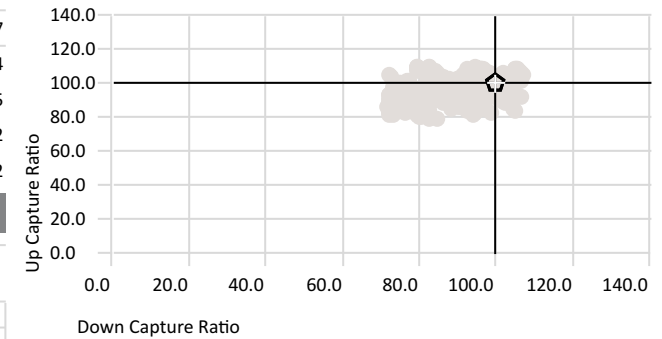
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: Russell 2000 Growth TR USD



Up/Down Market Capture Ratio

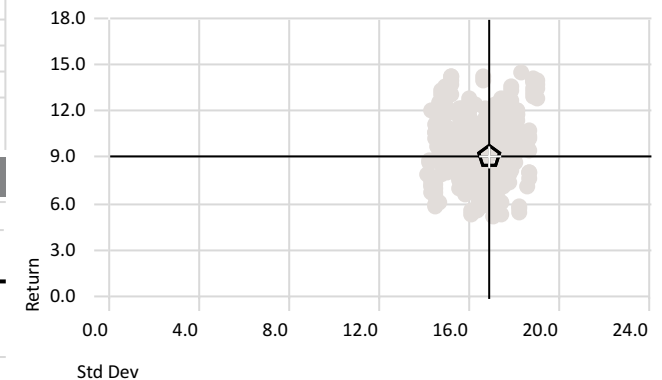
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: Russell 2000 Growth TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



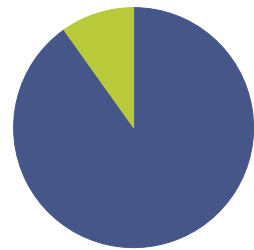
Morgan Stanley Inst Intl Advtg I

MFAIX



Asset Allocation

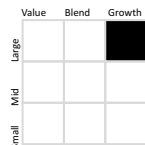
Portfolio Date: 6/30/2019



• Stock	90.1
• Bond	0.0
• Cash	9.9
• Other	0.0
Total	100.0

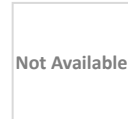
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	3.1	2.9
Consumer Cyclical %	18.7	15.7
Financial Services %	13.4	11.7
Real Estate %	0.0	1.1
Consumer Defensive %	25.9	9.8
Healthcare %	2.8	13.1
Utilities %	3.1	0.5
Communication Services %	0.0	1.9
Energy %	0.0	1.8
Industrials %	10.4	11.9
Technology %	22.4	29.5

Credit Quality

	Avg Eff Duration
	Avg Eff Maturity
	Avg Cred Qual
	Cred Qual AAA%
	Cred Qual AA%
	Cred Qual A%
	Cred Qual BBB %
	Cred Qual BB %
	Cred Qual B %
	Cred Qual Below B %

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
Morgan Stanley InstLqdy TrsSecsInstl		156	0.48	9.70%
DSV A/S		105	-2.02	6.56%
Moncler SpA		98	-13.97	6.07%
Hermes International SA		87	-2.07	5.41%
EPAM Systems Inc		79	-3.80	4.92%
Keyence Corp		79	0.27	4.91%
HDFC Bank Ltd		64	-1.39	3.97%
Rightmove PLC		58	11.92	3.61%
Booking Holdings Inc		56	7.34	3.46%
Pigeon Corp		54	19.31	3.35%
Turnover Ratio %				29.00
% Asset in Top 10 Holdings				45.53

Key Information

Ticker	MFAIX
Morningstar Category	US Fund Foreign Large Growth
Firm Name	Morgan Stanley
Advisor	Morgan Stanley Investment Management, Inc.
Manager Name	Multiple
Inception Date	12/28/2010
Fund Size (Mil)	1,941.28
Prospectus Net Expense Ratio	1.00
Firm Name	Morgan Stanley
Web Address	www.morganstanley.com

Key Information

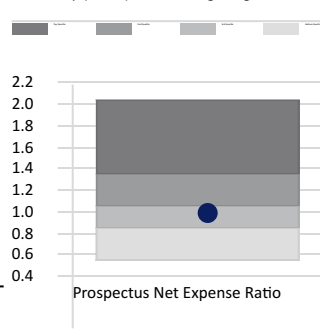
Morningstar Rating Overall	★★★★★
Morningstar Rating 3 Yr	★★★★★
Morningstar Return % Rank Cat 3 Yr	0
Morningstar Rating 5 Yr	★★★★★
Morningstar Return % Rank Cat 5 Yr	0
Morningstar Rating 10 Yr	
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	

Key Statistics

Arithmetic Mean 3 Yr (Mo-End)	1.33
Std Dev 3 Yr (Mo-End)	11.99
Alpha 3 Yr (Mo-End)	9.90
Sharpe Ratio 3 Yr (Mo-End)	1.20
Arithmetic Mean 5 Yr (Mo-End)	1.12
Std Dev 5 Yr (Mo-End)	11.87
Alpha 5 Yr (Mo-End)	10.24
Sharpe Ratio 5 Yr (Mo-End)	1.04

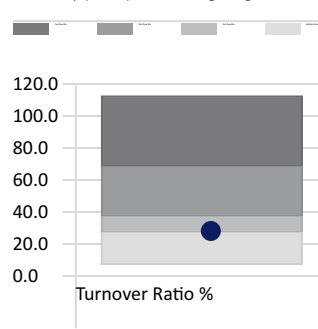
Expense vs Peer Group

Peer Group (5-95%): US OE Foreign Large Growth



Turnover vs Peer Group

Peer Group (5-95%): US OE Foreign Large Growth

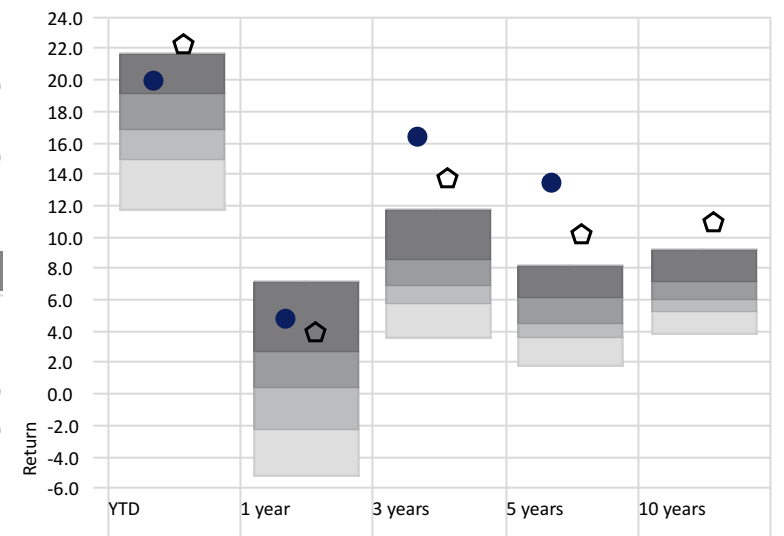


Investment Strategy

The investment seeks long-term capital appreciation. The fund invests primarily in established companies on an international basis, with capitalizations within the range of companies included in the MSCI All Country World ex USA Index. It typically invests at least 80% of its assets in the securities of issuers located outside of the United States. The fund may invest in foreign securities, which may include emerging market securities. It may invest in equity securities. The fund may also invest in privately placed and restricted securities.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Foreign Large Growth



As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Morgan Stanley Inst Intl Advtg I	20.08	4.90	16.41	13.47	
MSCI World Large Growth NR USD	22.29	4.02	13.72	10.20	10.96
Median	16.83	0.36	6.86	4.49	6.07
5th Percentile	21.72	7.10	11.68	8.23	9.19
25th Percentile	19.17	2.67	8.56	6.18	7.12
50th Percentile	16.83	0.36	6.86	4.49	6.07
75th Percentile	14.92	-2.33	5.76	3.57	5.22
95th Percentile	11.72	-5.25	3.62	1.81	3.78

Morgan Stanley Inst Intl Advtg I

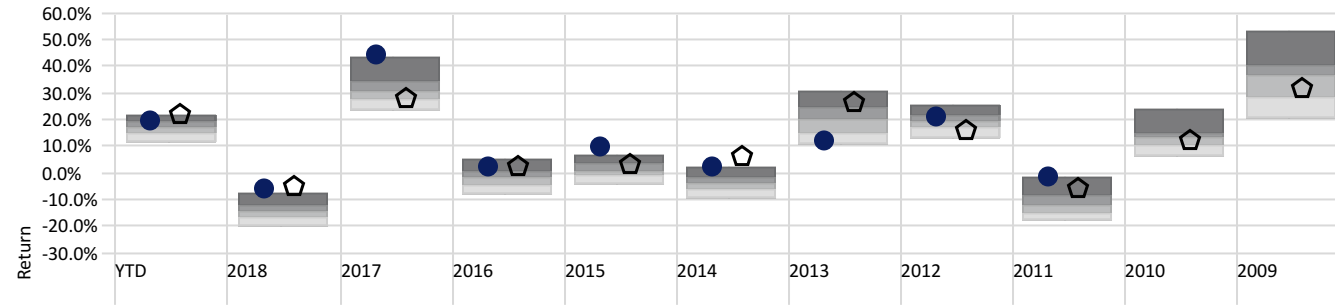
MFAIX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Foreign Large Growth Calculation Benchmark: MSCI World Large Growth NR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



● Morgan Stanley Inst Intl Advtg I

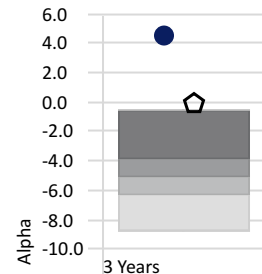
★ MSCI World Large Growth NR USD

As of Date: 9/30/2019 Calculation Benchmark: MSCI World Large Growth NR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Morgan Stanley Inst Intl Advtg I	20.08	-5.19	44.75	2.47	10.23	2.58	12.72	21.27	-1.31		
MSCI World Large Growth NR USD	22.29	-5.02	28.64	2.76	3.47	6.54	26.55	16.33	-5.12	12.62	32.18
Count	460	434	397	364	334	319	297	272	262	248	235
25th Percentile	19.17	-12.15	34.41	0.82	3.40	-1.63	24.79	21.18	-8.81	14.92	40.27
50th Percentile	16.83	-14.84	30.78	-1.70	0.77	-3.70	20.35	19.24	-12.57	12.95	36.74
75th Percentile	14.92	-16.74	27.34	-5.06	-0.94	-5.99	14.80	17.02	-14.89	10.03	28.14

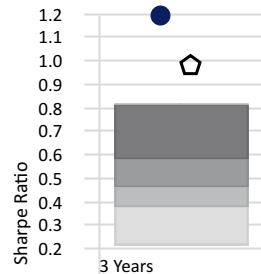
3 Yr Alpha

Peer Group (5-95%): US OE Foreign Large Growth



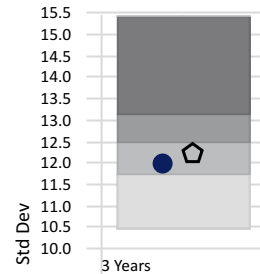
3 Yr Sharpe

Peer Group (5-95%): US OE Foreign Large Growth



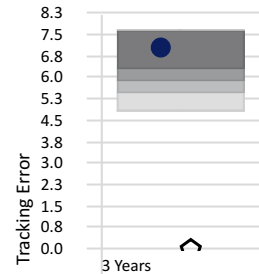
3 Yr Std Deviation

Peer Group (5-95%): US OE Foreign Large Growth



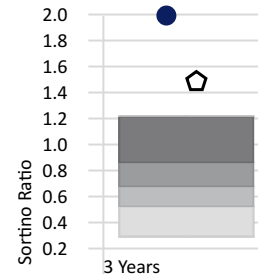
3 Yr Tracking Error

Peer Group (5-95%): US OE Foreign Large Growth



3 Yr Sortino

Peer Group (5-95%): US OE Foreign Large Growth



Performance Reporting

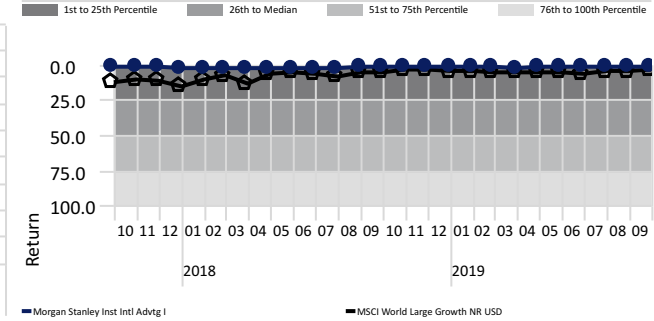
	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Morgan Stanley Inst Intl Advtg I	11.99	1.20	4.55	0.82	1.99	0.38	52.78	7.04
MSCI World Large Growth NR USD	12.25	0.98			1.48			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

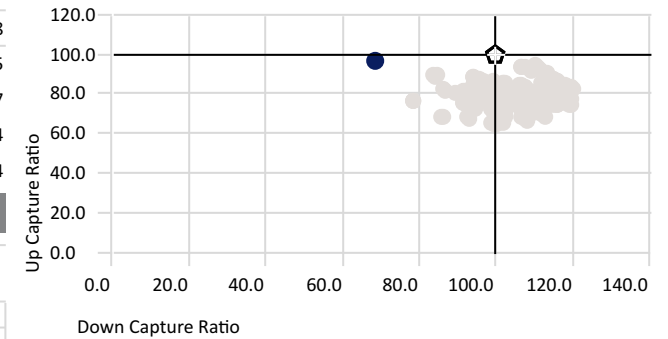
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: MSCI World Large Growth NR USD



Up/Down Market Capture Ratio

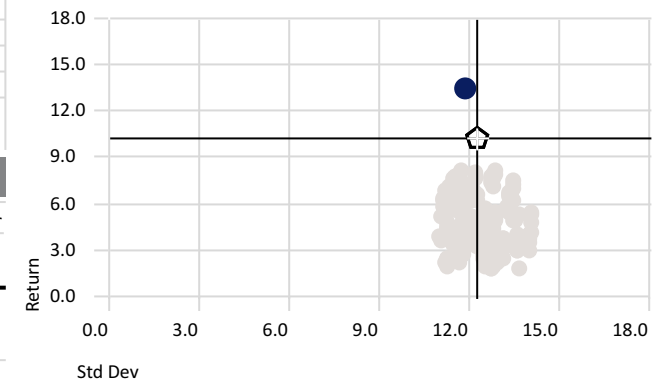
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: MSCI World Large Growth NR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



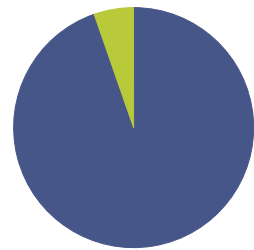
American Funds New Perspective R6

RNPGX



Asset Allocation

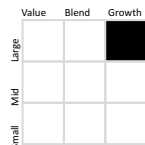
Portfolio Date: 9/30/2019



• Stock	94.7	%
• Bond	0.0	
• Cash	5.3	
• Other	0.0	
Total	100.0	

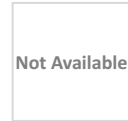
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	5.8	4.8
Consumer Cyclical %	14.9	11.6
Financial Services %	16.0	18.1
Real Estate %	1.0	3.5
Consumer Defensive %	8.2	9.0
Healthcare %	13.3	11.3
Utilities %	1.2	3.4
Communication Services %	1.5	3.7
Energy %	3.4	5.5
Industrials %	9.8	10.5
Technology %	24.9	18.7

Credit Quality

	Avg Eff Duration
	Avg Eff Maturity
	Avg Cred Qual
	Cred Qual AAA%
	Cred Qual AA%
	Cred Qual A%
	Credit Qual BBB %
	Credit Qual BB %
	Credit Qual B %
	Credit Qual Below B %

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
Capital Group Central Cash Fund		4,745		5.31%
Amazon.com Inc		3,077	-11.57	3.45%
Facebook Inc A		2,431	-7.01	2.72%
Microsoft Corp		2,360	2.76	2.64%
Mastercard Inc A		1,826	0.72	2.04%
Taiwan Semiconductor Manufacturing Co Ltd		1,793	18.78	2.01%
JPMorgan Chase & Co		1,520	4.74	1.70%
Broadcom Inc		1,454	2.46	1.63%
Visa Inc Class A		1,363	-0.66	1.53%
CME Group Inc Class A		1,358	4.56	1.52%
Turnover Ratio %				23.00
% Asset in Top 10 Holdings				20.53

Source: Morningstar Direct

Key Information

Ticker	RNPGX
Morningstar Category	US Fund World Large Stock
Firm Name	American Funds
Advisor	Capital Research and Management Company
Manager Name	Multiple
Inception Date	5/1/2009
Fund Size (Mil)	89,937.04
Prospectus Net Expense Ratio	0.45
Firm Name	American Funds
Web Address	www.americanfunds.com

Key Information

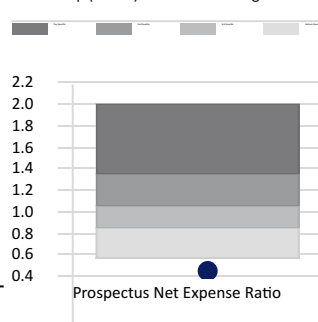
Morningstar Rating Overall	★★★★★
Morningstar Rating 3 Yr	★★★★
Morningstar Return % Rank Cat 3 Yr	13
Morningstar Rating 5 Yr	★★★★
Morningstar Return % Rank Cat 5 Yr	10
Morningstar Rating 10 Yr	★★★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	9

Key Statistics

Arithmetic Mean 3 Yr (Mo-End)	1.04
Std Dev 3 Yr (Mo-End)	11.98
Alpha 3 Yr (Mo-End)	5.82
Sharpe Ratio 3 Yr (Mo-End)	0.90
Arithmetic Mean 5 Yr (Mo-End)	0.83
Std Dev 5 Yr (Mo-End)	11.92
Alpha 5 Yr (Mo-End)	6.68
Sharpe Ratio 5 Yr (Mo-End)	0.75

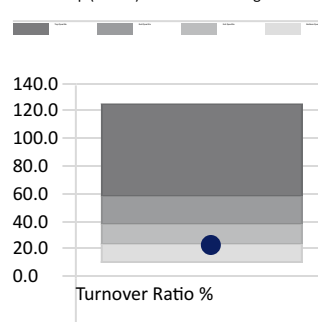
Expense vs Peer Group

Peer Group (5-95%): US OE World Large Stock



Turnover vs Peer Group

Peer Group (5-95%): US OE World Large Stock

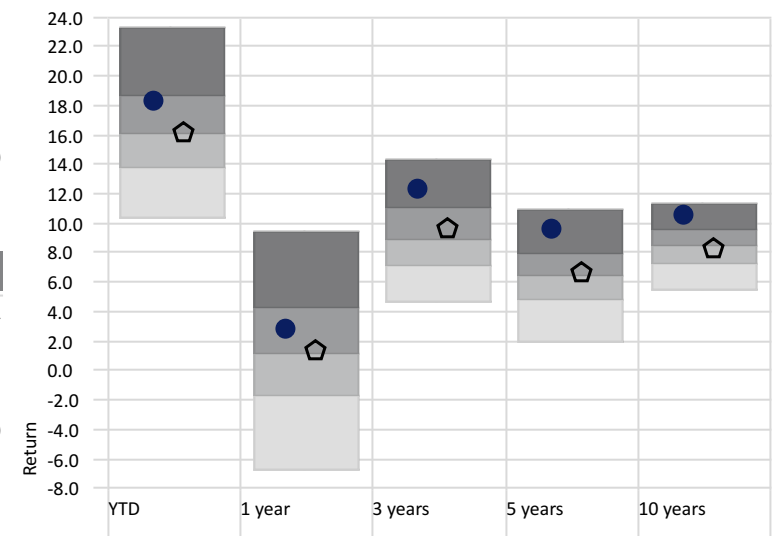


Investment Strategy

The investment seeks long-term growth of capital; future income is a secondary objective. The fund seeks to take advantage of investment opportunities generated by changes in international trade patterns and economic and political relationships by investing in common stocks of companies located around the world. In pursuing its primary investment objective, it invests primarily in common stocks that the investment adviser believes have the potential for growth. In pursuing its secondary objective, the fund invests in common stocks of companies with the potential to pay dividends in the future.

Performance Relative to Peer Group

Peer Group (5-95%): US OE World Large Stock



As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
American Funds New Perspective R6	18.45	2.88	12.38	9.72	10.67
MSCI ACWI NR USD	16.20	1.38	9.71	6.65	8.35
Median	16.10	1.14	8.84	6.39	8.49
5th Percentile	23.29	9.39	14.29	10.93	11.31
25th Percentile	18.73	4.27	11.09	7.90	9.60
50th Percentile	16.10	1.14	8.84	6.39	8.49
75th Percentile	13.81	-1.75	7.10	4.85	7.18
95th Percentile	10.42	-6.75	4.62	1.95	5.47

American Funds New Perspective R6

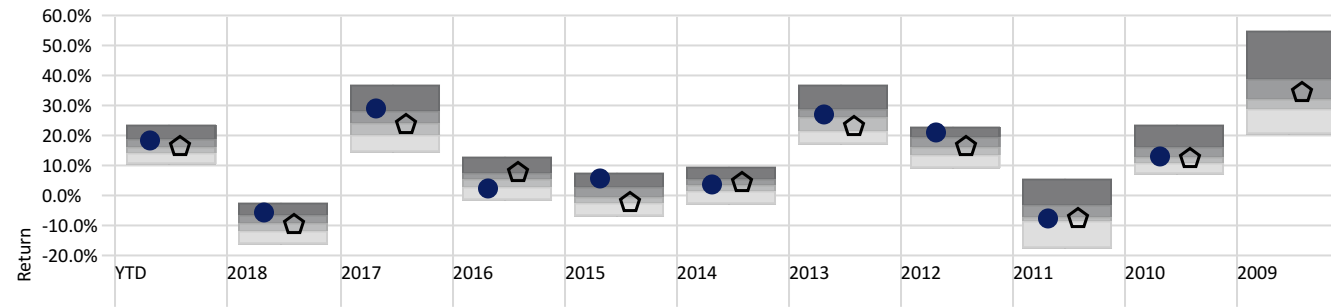
RNPGX



Performance Relative to Peer Group

Peer Group (5-95%): US OE World Large Stock Calculation Benchmark: MSCI ACWI NR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



American Funds New Perspective R6

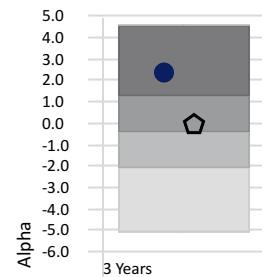
MSCI ACWI NR USD

As of Date: 9/30/2019 Calculation Benchmark: MSCI ACWI NR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
American Funds New Perspective R6	18.45	-5.56	29.30	2.19	5.63	3.56	27.23	21.19	-7.33	13.11	
MSCI ACWI NR USD	16.20	-9.41	23.97	7.86	-2.36	4.16	22.80	16.13	-7.35	12.67	34.63
Count	858	800	715	662	611	564	503	430	398	376	335
25th Percentile	18.73	-6.61	27.87	7.28	2.13	5.07	28.77	19.21	-3.66	15.52	38.67
50th Percentile	16.10	-9.66	24.04	5.42	-1.09	3.35	25.53	16.05	-7.26	12.72	31.88
75th Percentile	13.81	-12.05	20.07	2.73	-2.82	1.16	21.37	13.33	-9.03	10.60	28.16

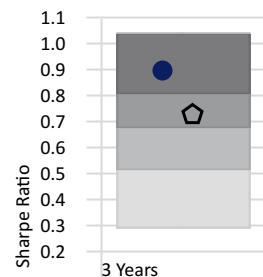
3 Yr Alpha

Peer Group (5-95%): US OE World Large Stock



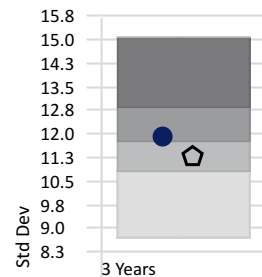
3 Yr Sharpe

Peer Group (5-95%): US OE World Large Stock



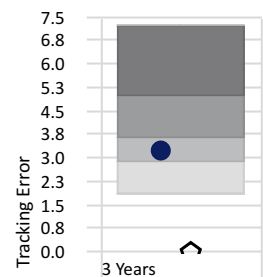
3 Yr Std Deviation

Peer Group (5-95%): US OE World Large Stock



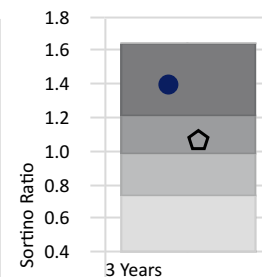
3 Yr Tracking Error

Peer Group (5-95%): US OE World Large Stock



3 Yr Sortino

Peer Group (5-95%): US OE World Large Stock



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years

US OE World Large Stock

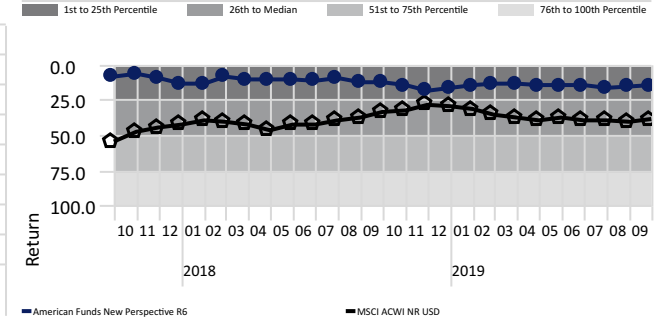
American Funds New Perspective R6	11.98	0.90	2.36	1.02	1.40	0.82	61.11	3.27
MSCI ACWI NR USD	11.32	0.73			1.07			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

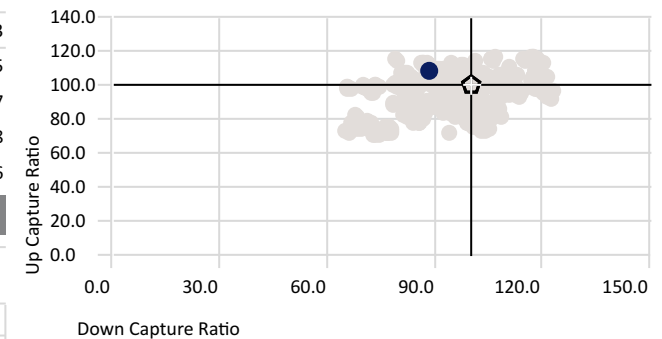
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: MSCI ACWI NR USD



Up/Down Market Capture Ratio

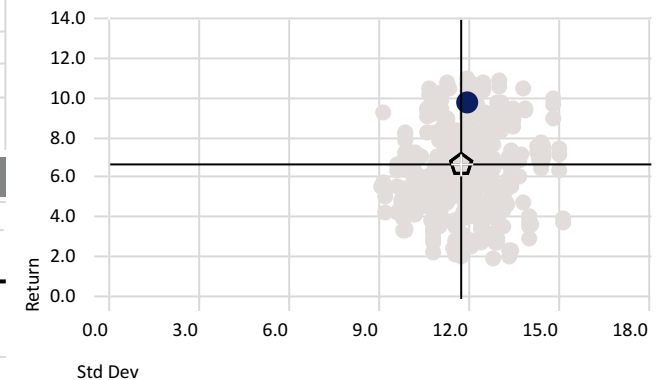
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: MSCI ACWI NR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



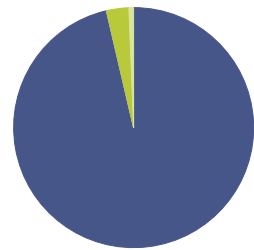
Vanguard Emerging Mkts Stock Idx Instl

VEMIX



Asset Allocation

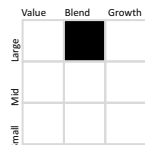
Portfolio Date: 9/30/2019



• Stock	96.3	%
• Bond	0.0	
• Cash	3.0	
• Other	0.6	
Total	100.0	

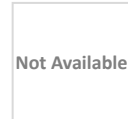
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	7.9	8.3
Consumer Cyclical %	11.9	11.9
Financial Services %	24.9	24.7
Real Estate %	4.1	4.0
Consumer Defensive %	7.1	7.0
Healthcare %	3.1	3.1
Utilities %	3.1	3.2
Communication Services %	4.5	4.6
Energy %	7.5	7.4
Industrials %	6.0	6.0
Technology %	19.9	19.6

Credit Quality

	Avg Eff Duration
	Avg Eff Maturity
	Avg Cred Qual
	Cred Qual AAA%
	Cred Qual AA%
	Cred Qual A%
	Credit Qual BBB %
	Credit Qual BB %
	Credit Qual B %
	Credit Qual Below B %

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
Tencent Holdings Ltd		3,574	-9.22	4.25%
Alibaba Group Holding Ltd ADR		3,491	1.68	4.15%
Cmt Market Liquidity Rate		2,433		2.89%
Taiwan Semiconductor Manufacturing Co Ltd		1,983	18.78	2.36%
Taiwan Semiconductor Manufacturing Co Ltd ADR		1,242	20.78	1.48%
China Construction Bank Corp Class H		1,056	1.05	1.25%
Naspers Ltd Class N		986	-10.55	1.17%
Ping An Insurance (Group) Co. of China Ltd Class H		936	1.02	1.11%
Reliance Industries Ltd		877	5.83	1.04%
Industrial And Commercial Bank Of China Ltd Class H		802	-1.29	0.95%
Turnover Ratio %				11.00
% Asset in Top 10 Holdings				18.62

Key Information

Ticker	VEMIX
Morningstar Category	US Fund Diversified Emerging Mkts
Firm Name	Vanguard
Advisor	Vanguard Group Inc
Manager Name	Multiple
Inception Date	6/22/2000
Fund Size (Mil)	83,541.08
Prospectus Net Expense Ratio	0.10
Firm Name	Vanguard
Web Address	www.vanguard.com

Key Information

Morningstar Rating Overall	★★★
Morningstar Rating 3 Yr	★★★
Morningstar Return % Rank Cat 3 Yr	49
Morningstar Rating 5 Yr	★★★
Morningstar Return % Rank Cat 5 Yr	46
Morningstar Rating 10 Yr	★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	54

Key Statistics

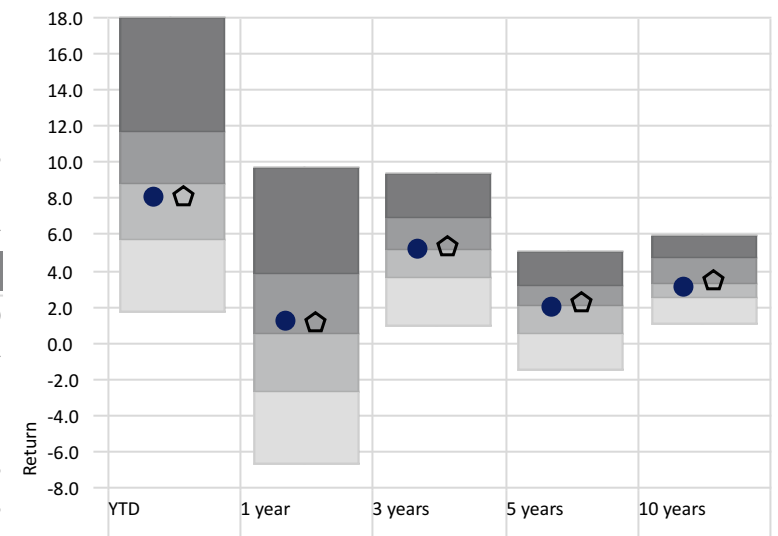
Arithmetic Mean 3 Yr (Mo-End)	0.50
Std Dev 3 Yr (Mo-End)	13.34
Alpha 3 Yr (Mo-End)	-0.98
Sharpe Ratio 3 Yr (Mo-End)	0.33
Arithmetic Mean 5 Yr (Mo-End)	0.26
Std Dev 5 Yr (Mo-End)	15.06
Alpha 5 Yr (Mo-End)	-0.64
Sharpe Ratio 5 Yr (Mo-End)	0.14

Investment Strategy

The investment seeks to track the performance of a benchmark index that measures the investment return of stocks issued by companies located in emerging market countries. The fund employs an indexing investment approach designed to track the performance of the FTSE Emerging Markets All Cap China A Inclusion Index. It invests by sampling the index, meaning that it holds a broadly diversified collection of securities that, in the aggregate, approximates the index in terms of key characteristics.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Diversified Emerging Markets

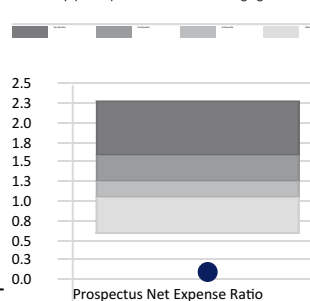


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Vanguard Emerging Mkts Stock Idx Instl	8.12	1.31	5.31	2.05	3.21
FTSE EMs AC China A Incl (US RIC) NR USD	8.11	1.16	5.41	2.34	3.55
Median	8.85	0.51	5.17	2.06	3.32
5th Percentile	17.97	9.66	9.31	5.08	5.96
25th Percentile	11.72	3.81	6.88	3.16	4.75
50th Percentile	8.85	0.51	5.17	2.06	3.32
75th Percentile	5.76	-2.66	3.57	0.57	2.46
95th Percentile	1.77	-6.70	0.99	-1.48	1.06

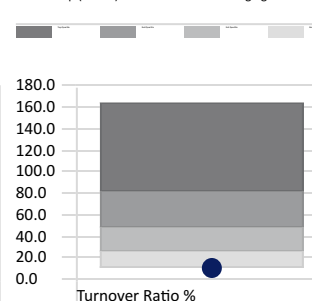
Expense vs Peer Group

Peer Group (5-95%): US OE Diversified Emerging Markets



Turnover vs Peer Group

Peer Group (5-95%): US OE Diversified Emerging Markets



Vanguard Emerging Mkts Stock Idx Instl

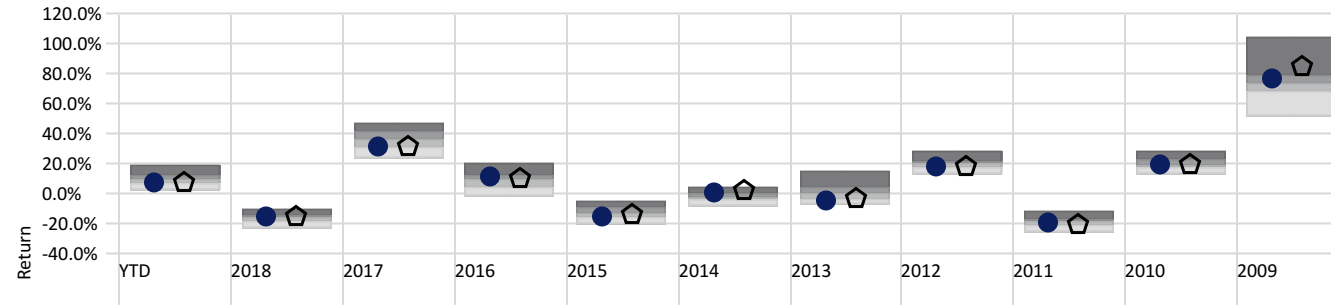
VEMIX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Diversified Emerging Markets Calculation Benchmark: FTSE EMs AC China A Incl (US RIC) NR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



● Vanguard Emerging Mkts Stock Idx Instl

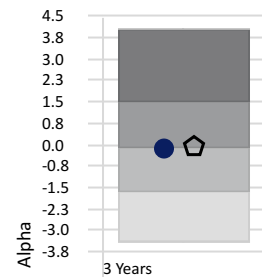
★ FTSE EMs AC China A Incl (US RIC) NR USD

As of Date: 9/30/2019 Calculation Benchmark: FTSE EMs AC China A Incl (US RIC) NR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Vanguard Emerging Mkts Stock Idx Instl	8.12	-14.54	31.43	11.76	-15.34	0.67	-4.99	18.91	-18.63	19.06	76.35
FTSE EMs AC China A Incl (US RIC) NR USD	8.11	-14.77	31.06	10.30	-13.55	2.64	-3.17	18.14	-19.99	19.81	85.17
Count	777	719	671	618	547	466	402	345	276	235	224
25th Percentile	11.72	-14.57	40.74	11.68	-10.02	0.02	3.56	21.28	-17.39	22.26	78.44
50th Percentile	8.85	-16.62	36.11	8.25	-13.56	-2.82	-0.89	19.33	-18.86	18.85	72.91
75th Percentile	5.76	-19.13	30.63	3.96	-16.03	-4.76	-4.02	16.95	-21.62	17.28	67.38

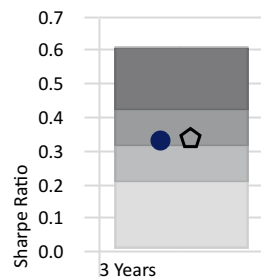
3 Yr Alpha

Peer Group (5-95%): US OE Diversified Emerging Markets



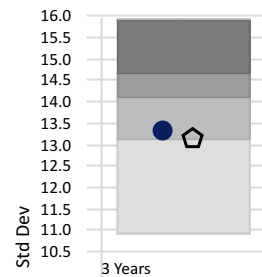
3 Yr Sharpe

Peer Group (5-95%): US OE Diversified Emerging Markets



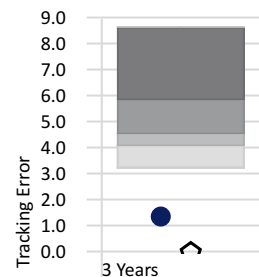
3 Yr Std Deviation

Peer Group (5-95%): US OE Diversified Emerging Markets



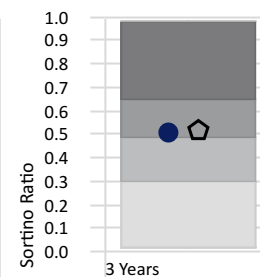
3 Yr Tracking Error

Peer Group (5-95%): US OE Diversified Emerging Markets



3 Yr Sortino

Peer Group (5-95%): US OE Diversified Emerging Markets



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Vanguard Emerging Mkts Stock Idx Instl	13.34	0.33	-0.12	1.01	0.51	-0.07	47.22	1.42
FTSE EMs AC China A Incl (US RIC) NR USD	13.15	0.34			0.52			

US OE Diversified Emerging Mkts

Vanguard Emerging Mkts Stock Idx Instl	13.34	0.33	-0.12	1.01	0.51	-0.07	47.22	1.42
FTSE EMs AC China A Incl (US RIC) NR USD	13.15	0.34			0.52			

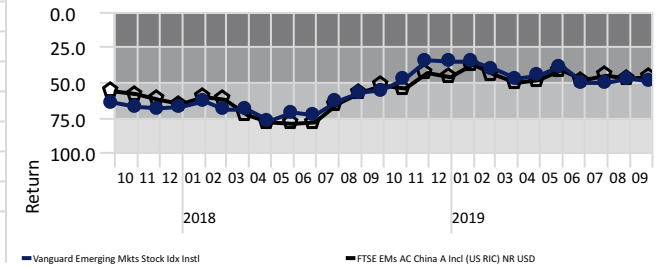
Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

Rolling Window: 3 Years 1 Month shift Calculation Benchmark: FTSE EMs AC China A Incl (US RIC) NR USD

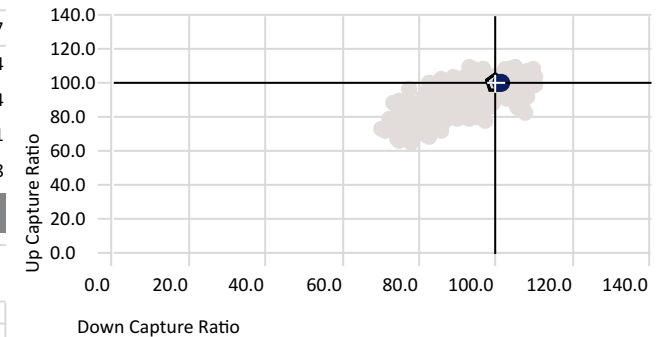
1st to 25th Percentile 26th to Median 51st to 75th Percentile 76th to 100th Percentile



Up/Down Market Capture Ratio

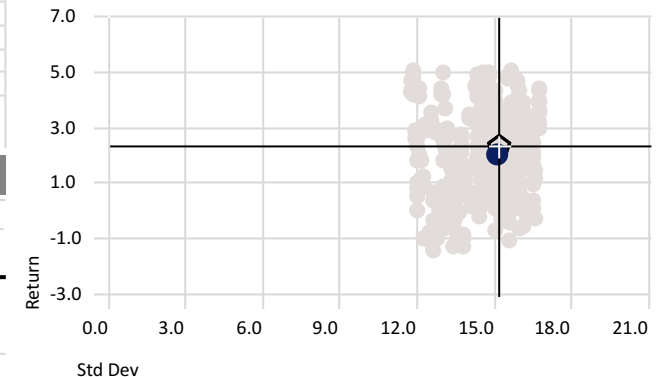
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: FTSE EMs AC China A Incl (US RIC) NR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



Vanguard Real Estate Index Institutional

Benchmark 1: Vanguard Real Estate Index
Benchmark 2: MSCI EAFE PR USD
Category: US Fund Real Estate

Return Date: 9/30/2019
Portfolio Date: 9/30/2019

Performance					
	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Year
2019	17.28	1.76	7.42		28.08
2018	-8.07	8.79	0.55	-6.46	-5.93
2017	0.96	1.63	0.87	1.39	4.93
2016	6.26	6.78	-1.48	-2.94	8.51
2015	4.74	-10.45	1.99	7.10	2.45
2014	9.96	6.99	-3.12	14.29	30.28
Trailing Returns					
	1 year	3 years	5 years	10 years	
Risk-Adj Ret	14.45	3.72	6.73	9.68	
Std Dev	4.69	12.88	14.31	15.55	
Return	19.92	7.10	9.96	12.91	
Ret +/- Index	1.34	1.24	1.28	1.30	

Performance Disclosure
The Overall Morningstar Rating is based on risk-adjusted returns, derived from a weighted average of the three-, five-, and 10-year (if applicable) Morningstar metrics. The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when sold or redeemed, may be worth more or less than their original cost.

Fees and Expenses	
Max Front Load	
Management Fee	0.09
Prospectus Gross Expense Ratio	0.10
12b-1 Fee	
Prospectus Net Expense Ratio	0.10
Deferred Load	

Morningstar Ratings			
Morningstar Rating Overall	★★★★		
Morningstar Rating 3 Yr	★★★		
Morningstar Rating 5 Yr	★★★		
Morningstar Rating 10 Yr	★★★★		
	3 years	5 years	10 years
Morningstar Return	5.39	8.85	12.30
Morningstar Risk	1.67	2.12	2.62

Risk & MPT Statistics			
	3 years	5 years	10 years
Std Dev	12.88	14.31	15.55
Median	0.75	0.81	1.29
Sharpe Ratio	0.47	0.66	0.83
Alpha	1.17	1.16	1.16
Beta	1.00	1.00	1.00
R2	99.97	99.97	99.98
12 Mo Yield	3.38		
SEC Yield			
Potential Capital Gains Exposure	6.67		

Operations	
Firm Name	Vanguard
Manager Name	Gerard C. O'Reilly
Manager Tenure (Years)	23.42
Prospectus Objective	Specialty - Real Estate



Top 15 Holdings		
	Shares	Portfolio Weighting %
Vanguard Real Estate II Index	342,382,679	11.09
American Tower Corp	21,477,160	6.83
Crown Castle International Corp	20,200,994	4.04
Prologis Inc	30,654,038	3.76
Equinix Inc	4,085,253	3.39
Simon Property Group Inc	15,012,417	3.36
Public Storage	7,627,794	2.69
Welltower Inc	19,669,931	2.57
Equity Residential	17,983,464	2.23
AvalonBay Communities Inc	6,767,651	2.10
SBA Communications Corp	5,505,053	1.91
Digital Realty Trust Inc	9,885,488	1.85
Ventas Inc	17,409,965	1.83
Realty Income Corp	15,370,280	1.70
Essex Property Trust Inc	3,190,758	1.50

Regional Exposure		
	Inv	Bmk1
Americas %	100.00	100.00
Greater Europe %	0.00	0.00
Greater Asia %	0.00	0.00

Sector Weightings		
	Inv	Bmk1
Basic Materials %	0.29	0.29
Consumer Cyclical %	0.00	0.00
Financial Services %	0.01	0.01
Real Estate %	99.67	99.67
Consumer Defensive %	0.00	0.00
Healthcare %	0.00	0.00
Utilities %	0.00	0.00
Communication Services %	0.00	0.00
Energy %	0.00	0.00
Industrials %	0.03	0.03
Technology %	0.00	0.00

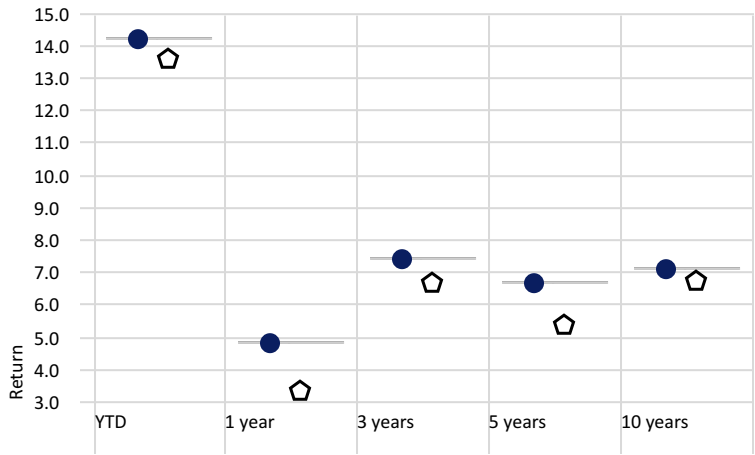
Base Currency	US Dollar	Inception Date	12/2/2003
Ticker	VGSNX	Fund Size	69,464,761,255.00
Minimum Initial Purchase	5,000,000	Investment Type	Open-End Fund
Closed to New Inv	No	Turnover Ratio %	24.00

Police Pension Plan - Return



Performance Versus Benchmark

Peer Group (5-95%): Display Group



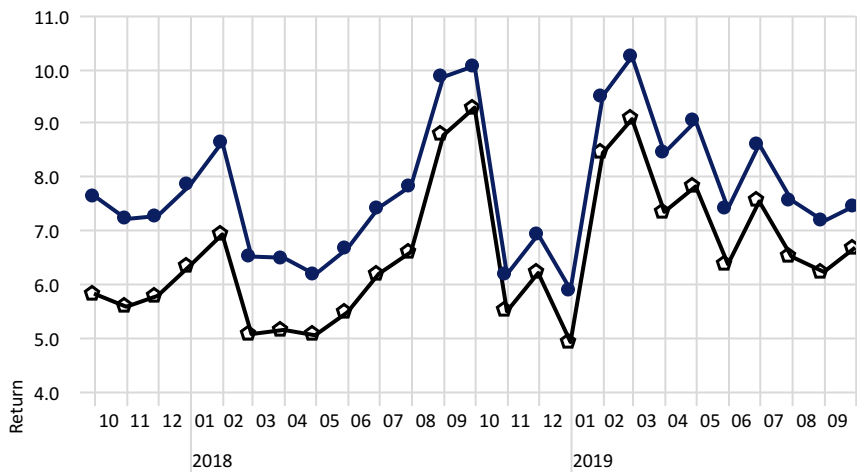
As of Date: 9/30/2019

	YTD	3 months	1 year	3 years	5 years	10 years
Police Pension Plan - Return	14.24	0.64	4.84	7.47	6.69	7.11
Dover Police Index	13.63	0.97	3.38	6.69	5.40	6.74

Rolling Returns

Time Period: 10/1/2014 to 9/30/2019

Rolling Window: 3 Years 1 Month shift Calculation Benchmark: Dover Police Index

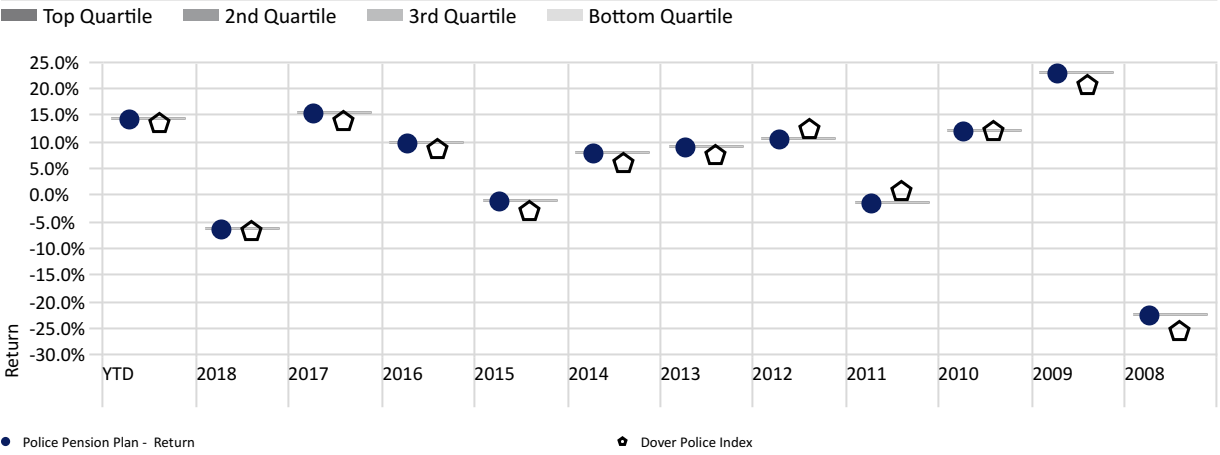


Police Pension Plan - Return Dover Police Index

Source: Morningstar Direct

Performance Versus Benchmark

Peer Group (5-95%): Display Group Calculation Benchmark: Dover Police Index



As of Date: 9/30/2019 Calculation Benchmark: Dover Police Index

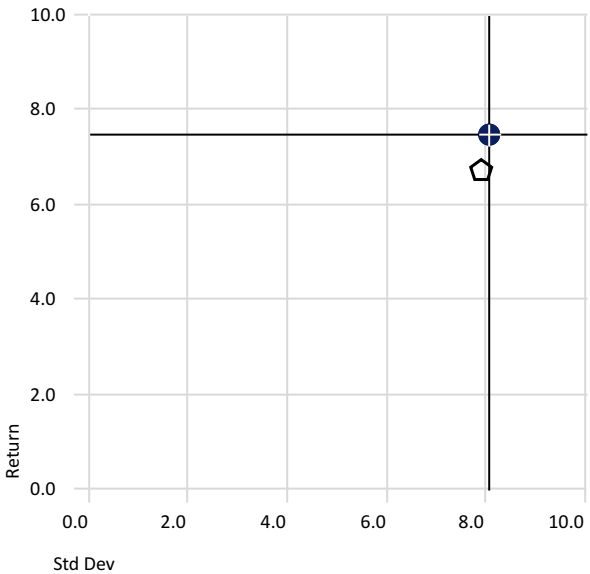
	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Police Pension Plan - Return	14.24	-6.40	15.51	9.86	-1.15	8.09	9.16	10.53	-1.53	12.07	22.92	-22.53
Dover Police Index	13.63	-6.79	14.12	8.61	-2.95	6.01	7.54	12.61	1.04	12.27	20.85	-25.24

Key Statistics

Arithmetic Mean 1 Yr (Mo-End)	0.46
Std Dev 1 Yr (Mo-End)	12.63
Alpha 1 Yr (Mo-End)	0.84
Sharpe Ratio 1 Yr (Mo-End)	0.25
Arithmetic Mean 3 Yr (Mo-End)	0.63
Std Dev 3 Yr (Mo-End)	8.06
Alpha 3 Yr (Mo-End)	-1.49
Sharpe Ratio 3 Yr (Mo-End)	0.73
Arithmetic Mean 5 Yr (Mo-End)	0.57
Std Dev 5 Yr (Mo-End)	8.14
Alpha 5 Yr (Mo-End)	-0.65
Sharpe Ratio 5 Yr (Mo-End)	0.71

Risk-Reward

Time Period: 10/1/2016 to 9/30/2019





To:	City of Dover, Delaware OPEB Plan – Board
From:	Jeff Marzinsky – Milliman
Re:	Board Meeting Notes

Enclosures: Milliman Quarterly Investment Monitor Report (QIM)

1. OPEB Plan Investment Review through quarter end:

- a. As of quarter end, the plan had approximately \$38.6 million in assets, up from \$38.4 million at the beginning of the quarter. During the quarter, the plan had no contributions, no withdrawals/payments, and fees of approximately \$2.8 thousand.
- b. Total performance of the plan portfolio was 0.64% net (0.71% gross) for the quarter, trailing the Plan's benchmark index performance of 1.06%. For the year, the plan return was 4.65% net, 4.94% gross, exceeding the benchmark performance of 3.51%.

City of Dover OPEB Trust Quarterly Return Summary									
Month End	BMV	Contribution	Withdrawals	Fees	Gain	EMV	OPEB-NET RETURN	OPEB-GROSS RETURN	
10/31/2018	\$ 34,725,962.19	\$ -	\$ -	\$ 2,552.18	\$ (2,018,678.47)	\$ 32,704,731.54	-5.81%	-5.79%	
11/30/2018	\$ 32,704,731.54	\$ -	\$ -	\$ -	\$ 517,373.02	\$ 33,222,104.56	1.58%	1.60%	
12/31/2018	\$ 33,222,104.56	\$ -	\$ -	\$ -	\$ (1,567,888.42)	\$ 31,654,216.14	-4.72%	-4.70%	
1/31/2019	\$ 31,654,216.14	\$ -	\$ -	\$ 2,301.37	\$ 2,177,270.59	\$ 33,829,185.36	6.88%	6.90%	
2/28/2019	\$ 33,829,185.36	\$ 1,915,000.00	\$ -	\$ -	\$ 777,771.11	\$ 36,521,956.47	2.21%	2.23%	
3/31/2019	\$ 36,521,956.47	\$ -	\$ -	\$ -	\$ 484,333.31	\$ 37,006,289.78	1.33%	1.35%	
4/30/2019	\$ 37,006,289.78	\$ -	\$ -	\$ 2,693.88	\$ 932,226.30	\$ 37,935,822.20	2.52%	2.54%	
5/31/2019	\$ 37,935,822.20	\$ -	\$ -	\$ -	\$ (1,532,397.10)	\$ 36,403,425.10	-4.04%	-4.02%	
6/30/2019	\$ 36,403,425.10	\$ 270,000.00	\$ -	\$ -	\$ 1,733,523.41	\$ 38,406,948.51	4.76%	4.78%	
7/31/2019	\$ 38,406,948.51	\$ -	\$ -	\$ 2,775.36	\$ 224,488.66	\$ 38,628,661.81	0.58%	0.61%	
8/31/2019	\$ 38,628,661.81	\$ -	\$ -	\$ -	\$ (407,777.36)	\$ 38,220,884.45	-1.06%	-1.03%	
9/30/2019	\$ 38,220,884.45	\$ -	\$ -	\$ -	\$ 428,356.52	\$ 38,649,240.97	1.12%	1.14%	
		\$ -	\$ -	\$ 2,775.36	\$ 245,067.82		Quarterly Return	0.64%	0.71%
		\$ 2,185,000.00	\$ -	\$ 10,322.79	\$ 1,748,601.57		One Year Return	4.65%	4.94%

- c. The chart below describes the current target allocation for the plan.

Category Description	Fund Category	Investment Name	Target Asset Allocation	Asset Allocation Range
Money Market	CA	WF TREAS PLUS MM FD-INST #793	3.00%	4-14%; target 9% Cash + STB
Short Term Bonds	STB	Vanguard Short Term Bond	6.00%	4-14%; target 9% Cash + STB
Non-traditional Bond	NTB	Columbia Strategic Income	4.50%	0-9.5%; target of 4.5% NTB
Inflation Protected Bonds	TIPS	Vanguard Inflation Prot Sec	4.00%	0-9%; target of 4% TIPS
Intermediate Term Bonds	INTB	Dodge & Cox Income	2.25%	0-9.5%; target 4.5% INTB
Intermediate Term Bonds	INTB	Vanguard Total Bond Mkt Index Adm	2.25%	0-9.5%; target 4.5% INTB
Long Term Bonds	LTB	PIMCO Long Duration	2.00%	0-9%; target 4% LTB
Long Term Bonds	LTB	Vanguard Long Duration	2.00%	0-9%; target 4% LTB
High Yield Bond	HYB	Prudential High Yield	5.00%	1-11%; target 6% HYB
Large Cap Value	LCV	American Funds Washington Mutual	8.00%	3-13%; target 8% LCV
Large Cap Growth	LCG	Vanguard Growth Index	11.00%	6-16%; target 11% LCG
Mid Cap	MCV	Vanguard Mid Cap Value Index	8.00%	2-12%; target 7% MC
Small Cap	SCV	Prudential Small Cap Value	0.00%	REPLACED 9/25/19
Small Cap	SCV	Janus Henderson Small Cap Value	7.00%	2-12%; target 7% SCV
Small Cap	SCG	Federated Kaufmann Small Cap Instl	4.00%	0-9%; target 4% SCG
Real Estate Investment	REIT	Vanguard REIT Index	5.00%	2-12%; target 7% REIT
Foreign Equity	GLB	American Funds New Perspective	7.00%	9-19%; target 14% FOR
Foreign Equity	FLG	Oppenheimer Intl Growth Y	0.00%	REPLACED 9/25/19
Foreign Equity	FLG	Morgan Stanley Intl Intl Adv	7.00%	9-19%; target 14% FOR
Emerging Markets	EMG	Vanguard Emerging Mkts	12.00%	7-17%; target 12% Emg Mkts

- d. The target allocation was unchanged during the quarter aside from the following:
- Janus Henderson Small Cap Value replaced PGIM/Prudential QMA Small Cap Value.
 - Morgan Stanley Inst Intl Advantage replaced Invesco Oppenheimer International Growth.
- e. A Portfolio Scorecard is utilized to review fund performance based on a variety of analytic measures, as well as focusing on specific asset category, investment style (active or passive), and socially conscious nature of the individual investments. The following grid indicates whether a fund meets these various quantitative measures by displaying a “√” (check) mark, or does not meet the criteria by displaying an “x” (x-mark). “Watch” means that the fund is not meeting criteria and is trailing in performance compared to both its peer group and benchmarks. A “-” mark means that the fund is trailing in some areas of review, but not currently enough to fall to “Watch”. A “*” indicates that the fund has less than 5 years of data.

In the following exhibit, Milliman’s analytic review indicates that nearly all of the funds meet the screens for each asset class peer group, as designated with “Approve” status under “Mgr Rating”.

Index Fund	Active Fund Criteria								Index Fund Criteria				Prospectus Net Expense Ratio	Mgr Rating
	3Yr-Index	3Yr-Peer	3Yr-Alpha	3Yr-Sharpe	5Yr-Index	5Yr-Peer	5Yr-Alpha	5Yr-Sharpe	3Yr-Beta	3Yr-TrackErr	5Yr-Beta	5Yr-TrackErr		
Wells Fargo Treasury Plus MMkt Inst		x	√	√	√	x	√	√	√				0.20	
Vanguard Inflation-Protected Secs I													0.07	Approve
Vanguard Short-Term Bond Index Adm	Yes								√	√	√	√	0.07	-
Dodge & Cox Income		√	√	√	√	√	√	√					0.42	Approve
Vanguard Total Bond Market Index Adm	Yes								√	√	√	√	0.05	Approve
Vanguard Long-Term Bond Index Investor	Yes								√	√	√	√	0.15	Approve
PIMCO Long Duration Total Return Instl		√	√	√	x	√	√	√					0.97	Approve
PGIM High Yield R6		√	√	√	√	√	√	√					0.42	Approve
Columbia Strategic Income Inst3		√	√	√	√	√	√	√					0.61	Approve
American Funds Washington Mutual R6		√	√	√	√	√	√	√					0.27	Approve
Vanguard Growth Index Institutional	Yes								√	√	√	√	0.04	Approve
Vanguard Mid-Cap Value Index Admiral	Yes								√	√	√	√	0.07	Approve
Janus Henderson Small Cap Value I		√	√	√	√	√	√	√					0.88	Approve
Federated Kaufmann Small Cap Instl		√	√	√	√								0.91	*
Morgan Stanley Inst Intl Advtg I		√	√	√	√	√	√	√					1.00	Approve
American Funds New Perspective R6		√	√	√	√	√	√	√					0.45	Approve
Vanguard Emerging Mkts Stock Idx Instl	Yes								√	x	√	x	0.10	-
Vanguard Real Estate Index Institutional	Yes								√	√	√	√	0.10	Approve
OPEB Plan - Return														

- f. Comments on specific funds:
- Vanguard Short Term Bond Index
 - The 1 year beta statistic of 0.93 is a little low, however 3 and 5 year statistics are closer to 1.0.
 - No formal watch is necessary.
 - Vanguard Emerging Markets Stock Index
 - This fund made a benchmark change in 2016. We will see elevated tracking error for a few more quarters as a result.
 - No formal watch is necessary.

The analysis in this report was prepared utilizing data from third parties and other sources including but not limited to internal computer software and databases, including among others mpiStylus Pro®, software designed by Markov Processes International, Morningstar. Reasonable care has been taken to assure the accuracy of the data contained herein, and comments are objectively stated and are based on facts gathered in good faith. These reports do not constitute investment advice with respect to the sale or disposition of individual securities. Milliman disclaims responsibility, financial or otherwise, for the accuracy or completeness of this report.

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These estimates are subject to the uncertainties of a regular actuarial valuation; the estimates are inexact because they are based on assumptions that are themselves necessarily inexact, even though we consider them reasonable. Thus, the emerging liabilities and market returns may vary from those presented in this report to the extent actual experience differs from that projected by the actuarial assumptions. The analysis in this report was prepared utilizing data from third parties and other sources including but not limited to internal computer software and databases. Reasonable care has been taken to assure the accuracy of the data contained herein, and comments are objectively stated and are based on facts gathered in good faith. On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this analysis is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices.

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Quarterly Investment Monitor

Prepared for:

**CITY OF DOVER, DELAWARE
OTHER POSTEMPLOYMENT
BENEFIT (OPEB)**

As of: 9/30/2019

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The One Year, Three Year, Five Year, and Ten Year rates of return are time-weighted annual rates. The One Month, Three Month, and Year to Date rates of return are rates for the period indicated. All returns include fund internal expenses, except sales charges, if any. The rates of return shown are for the mutual funds in which the retirement program participates, not for the plan specifically. Returns credited to individual accounts will vary due to the timing of contributions, transfers, and withdrawals.

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SECTION I - Market Update

Market Commentary

Markets declined during August amid increasing trade war tensions and fears of a recession in the US. Global equity markets staged a rebound during September, only to pull back at the end of the quarter.

U.S. stocks rose modestly during the quarter, with increased volatility. The Dow finished the quarter up 1.83%, while the S&P 500 rose 1.70%. The Russell Mid Cap Index rose 0.48% and the Russell 2000 fell 2.40%. Across market caps, large value and growth finished similarly, while value outpaced growth in small and mid-caps.

International equity markets finished the quarter in negative territory. The MSCI EAFE was down 1.07%, while the MSCI EAFE Small Cap Index fell 0.44%. The MSCI Emerging Markets Index fell 4.25%. Globally, we continue to see trade war tensions negatively influencing equity markets.

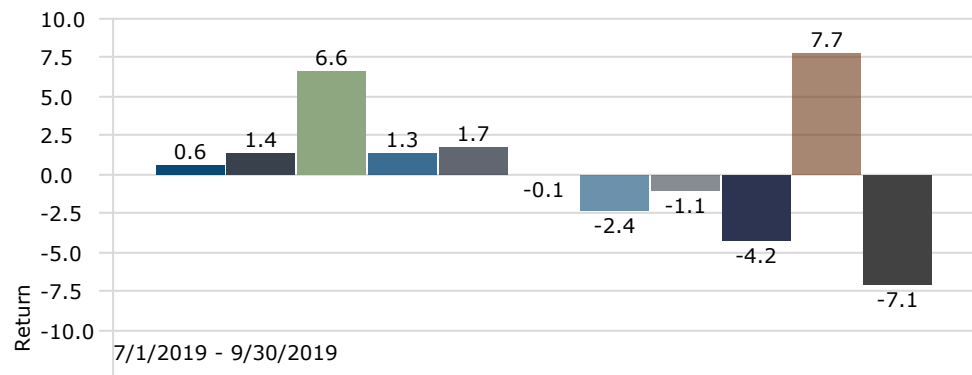
The FOMC (Fed) made a 25-basis point reduction in interest rates in both July and September. The Fed indicated that the labor market remains strong and economic activity has been rising at a moderate rate, with low unemployment and solid job gains. However, the Fed indicated business investment and exports have weakened, the global economic outlook remains uncertain and inflation is running below the 2% target.

Unemployment remained at the 3.7% achieved during June. Initial jobless claims dipped earlier in the quarter, but have trended back up to the 215,000 range. GDP growth has indicated some slowing in the economy with a current rate in the 2% range.

Crude oil rose prices averaged \$55 a barrel during the quarter, even with the attack on Saudi facilities during September. Oil was \$54 a barrel at the end of the quarter.

Milliman - Periodic Table

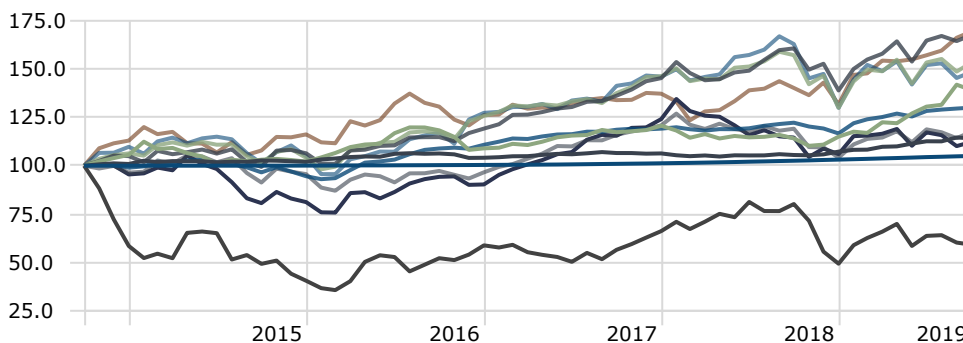
As of Date: 9/30/2019



■ BofAML US Treasury Bill 3 Mon TR USD
 ■ BBgBarc US Corporate High Yield TR USD
 ■ Russell 2000 TR USD
 ■ FTSE NAREIT All Equity REITs TR USD
 ■ BBgBarc US Govt/Credit Interm TR USD
 ■ S&P 500 TR USD
 ■ MSCI EAFE NR USD
 ■ WTexas Crude Int Oil BL
 ■ BBgBarc US Govt/Credit Long TR USD
 ■ S&P MidCap 400 TR
 ■ MSCI EM NR USD

Milliman - Periodic Table

Time Period: 10/1/2014 to 9/30/2019



■ BofAML US Treasury Bill 3 Mon TR USD
 ■ BBgBarc US Corporate High Yield TR USD
 ■ Russell 2000 TR USD
 ■ FTSE NAREIT All Equity REITs TR USD
 ■ BBgBarc US Govt/Credit Interm TR USD
 ■ S&P 500 TR USD
 ■ MSCI EAFE NR USD
 ■ WTexas Crude Int Oil BL
 ■ BBgBarc US Govt/Credit Long TR USD
 ■ S&P MidCap 400 TR
 ■ MSCI EM NR USD

Milliman - Market Update

Data Point: Return

	QTR	YTD	1 Year	3 Years	5 Years	10 Years	15 Years
BofAML US Treasury Bill 3 Mon TR USD	0.56	1.81	2.39	1.54	0.98	0.54	1.39
Barclays US Treasury US TIPS TR USD	1.35	7.58	7.13	2.21	2.45	3.46	3.90
Barclays US Govt/Credit 1-3 Yr TR USD	0.69	3.42	4.64	1.82	1.59	1.52	2.43
Barclays US Govt/Credit Interm TR USD	1.37	6.41	8.17	2.40	2.68	3.05	3.59
Barclays US Govt/Credit Long TR USD	6.58	20.93	21.88	5.56	6.81	7.42	6.94
Barclays US Corporate High Yield TR USD	1.33	11.41	6.36	6.07	5.37	7.94	7.33
DJ Industrial Average TR USD	1.83	17.51	4.21	16.44	12.28	13.56	9.51
Russell 1000 Value TR USD	1.36	17.81	4.00	9.43	7.79	11.46	7.82
S&P 500 TR USD	1.70	20.55	4.25	13.39	10.84	13.24	9.01
Russell 1000 Growth TR USD	1.49	23.30	3.71	16.89	13.39	14.94	10.40
S&P MidCap 400 TR	-0.09	17.87	-2.49	9.38	8.88	12.56	9.82
Russell 2000 TR USD	-2.40	14.18	-8.89	8.23	8.19	11.19	8.19
MSCI EAFE NR USD	-1.07	12.80	-1.34	6.48	3.27	4.90	5.29
MSCI EAFE Small Cap NR USD	-0.44	12.05	-5.93	5.94	6.02	7.45	7.35
MSCI EM NR USD	-4.25	5.89	-2.02	5.97	2.33	3.37	7.82
FTSE NAREIT All REITs TR	7.24	27.37	19.58	9.02	10.90	13.30	8.76
Bloomberg Commodity TR USD	-1.84	3.13	-6.57	-1.50	-7.18	-4.32	-3.13
WTexas Crude Int Oil BL	-7.06	19.80	-26.07	4.27	-9.91	-2.61	0.58

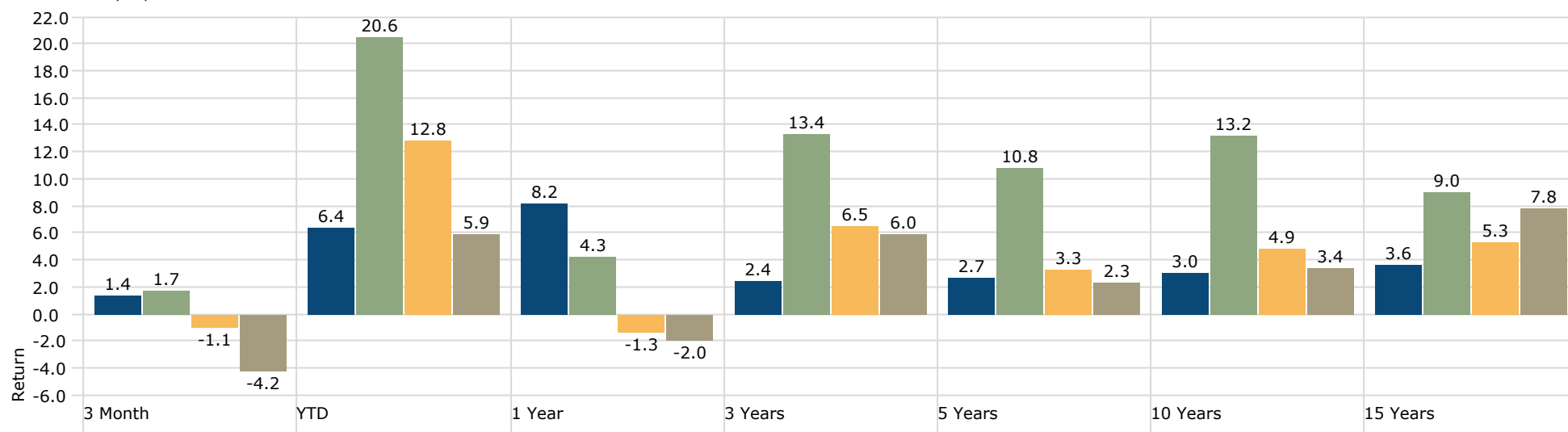
Milliman - Market Update

Time Period: 10/1/2018 to 9/30/2019

	BofAML US Treasury Bill 3 Mon TR USD	Barclays US Treasury US TIPS TR USD	Barclays US Govt/Credit 1-3 Yr TR USD	Barclays US Govt/Credit Interm TR USD	Barclays US Govt/Credit Long TR USD	Barclays US Corporate High Yield TR USD	DJ Industrial Average TR USD	Russell 1000 Value TR USD	S&P 500 TR USD	Russell 1000 Growth TR USD	S&P MidCap 400 TR	Russell 2000 TR USD	MSCI EAFE NR USD	MSCI EAFE Small Cap NR USD	MSCI EM NR USD	FTSE NAREIT All REITs TR	Bloomberg Commodity TR USD	WTexas Crude Int Oil BL
2018-10	0.17	-1.43	0.11	-0.14	-3.35	-1.60	-4.98	-5.18	-6.84	-8.94	-9.55	-10.86	-7.96	-9.63	-8.71	-2.62	-2.16	-10.73
2018-11	0.21	0.48	0.29	0.45	0.55	-0.86	2.11	2.99	2.04	1.06	3.12	1.59	-0.13	-0.70	4.12	4.49	-0.56	-22.25
2018-12	0.18	0.55	0.78	1.34	3.70	-2.14	-8.59	-9.60	-9.03	-8.60	-11.32	-11.88	-4.85	-6.45	-2.65	-7.73	-6.89	-11.09
2019-01	0.20	1.35	0.39	0.87	2.24	4.52	7.29	7.78	8.01	8.99	10.46	11.25	6.57	8.06	8.76	11.42	5.45	19.25
2019-02	0.18	-0.01	0.16	0.09	-0.55	1.66	4.03	3.20	3.21	3.58	4.24	5.20	2.55	2.24	0.22	0.50	1.01	6.26
2019-03	0.22	1.84	0.66	1.35	4.70	0.94	0.17	0.64	1.94	2.85	-0.57	-2.09	0.63	0.16	0.84	4.22	-0.18	5.21
2019-04	0.19	0.33	0.23	0.19	-0.40	1.42	2.66	3.55	4.05	4.52	4.02	3.40	2.81	3.02	2.11	-0.06	-0.42	6.05
2019-05	0.23	1.65	0.69	1.31	4.13	-1.19	-6.32	-6.43	-6.35	-6.32	-7.97	-7.78	-4.80	-5.29	-7.26	0.20	-3.36	-16.20
2019-06	0.22	0.86	0.56	1.07	2.78	2.28	7.31	7.18	7.05	6.87	7.64	7.07	5.93	4.24	6.24	1.63	2.69	8.81
2019-07	0.18	0.36	-0.06	-0.03	0.73	0.56	1.12	0.83	1.44	2.26	1.19	0.58	-1.27	-0.71	-1.22	1.58	-0.67	0.57
2019-08	0.21	2.38	0.81	1.77	7.87	0.40	-1.32	-2.94	-1.58	-0.77	-4.19	-4.94	-2.59	-2.47	-4.88	3.40	-2.32	-5.91
2019-09	0.17	-1.36	-0.05	-0.36	-1.91	0.36	2.05	3.57	1.87	0.01	3.06	2.08	2.87	2.81	1.91	2.11	1.17	-1.78

Milliman - Broad Market

As of Date: 9/30/2019



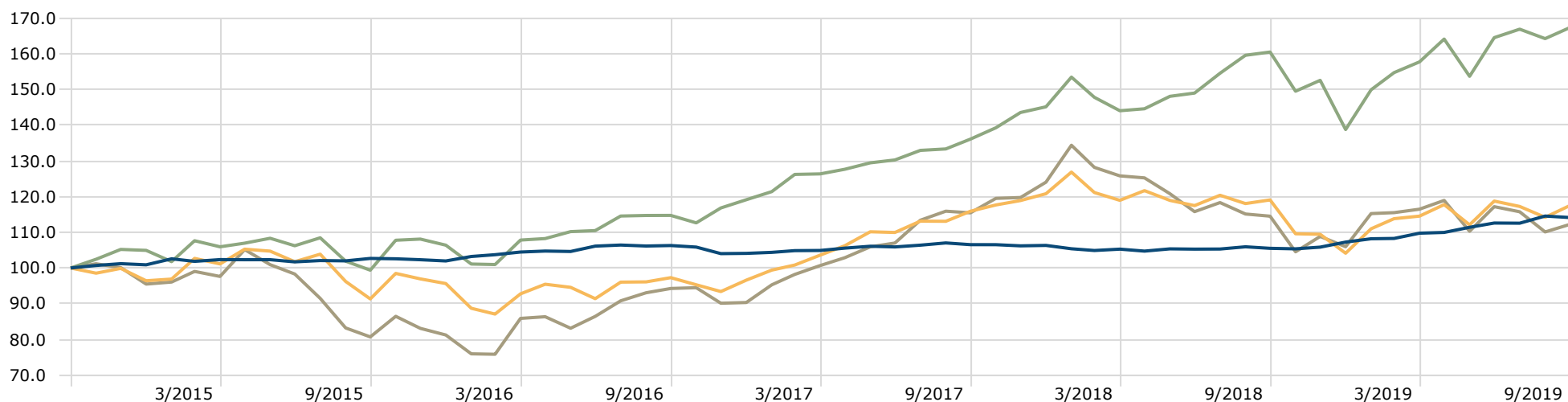
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MSCI EM NR USD

S&P 500 TR USD

MSCI EAFE NR USD

Milliman - Broad Market

Time Period: 10/1/2014 to 9/30/2019



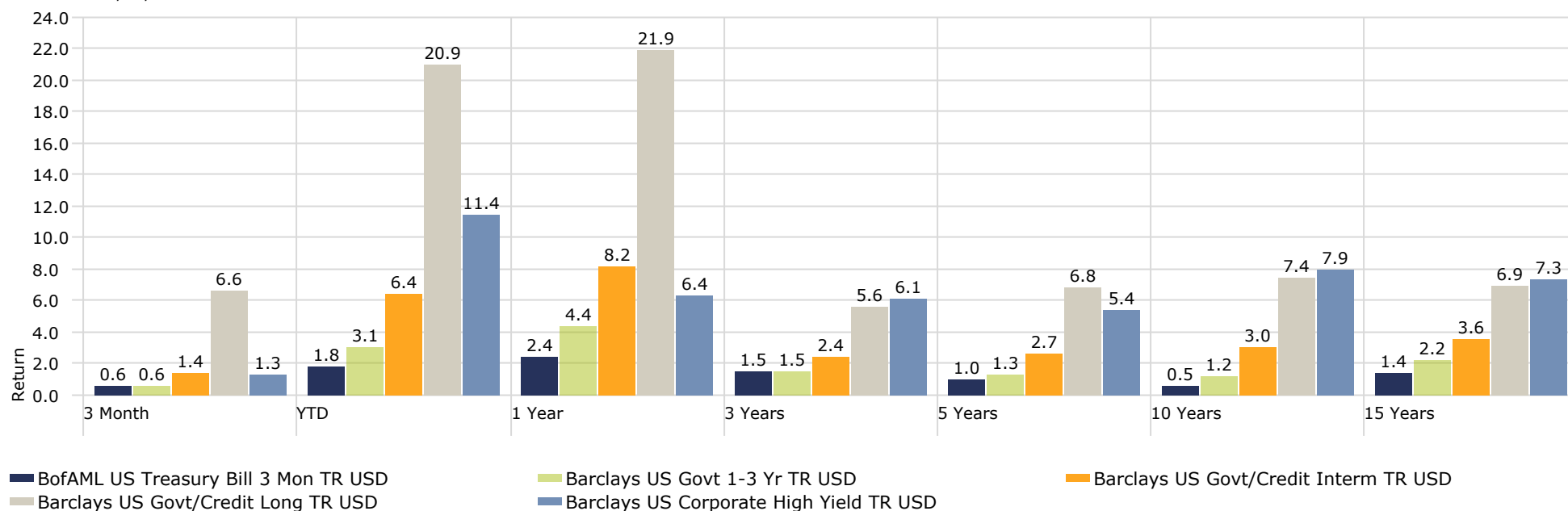
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MSCI EM NR USD

S&P 500 TR USD

MSCI EAFE NR USD

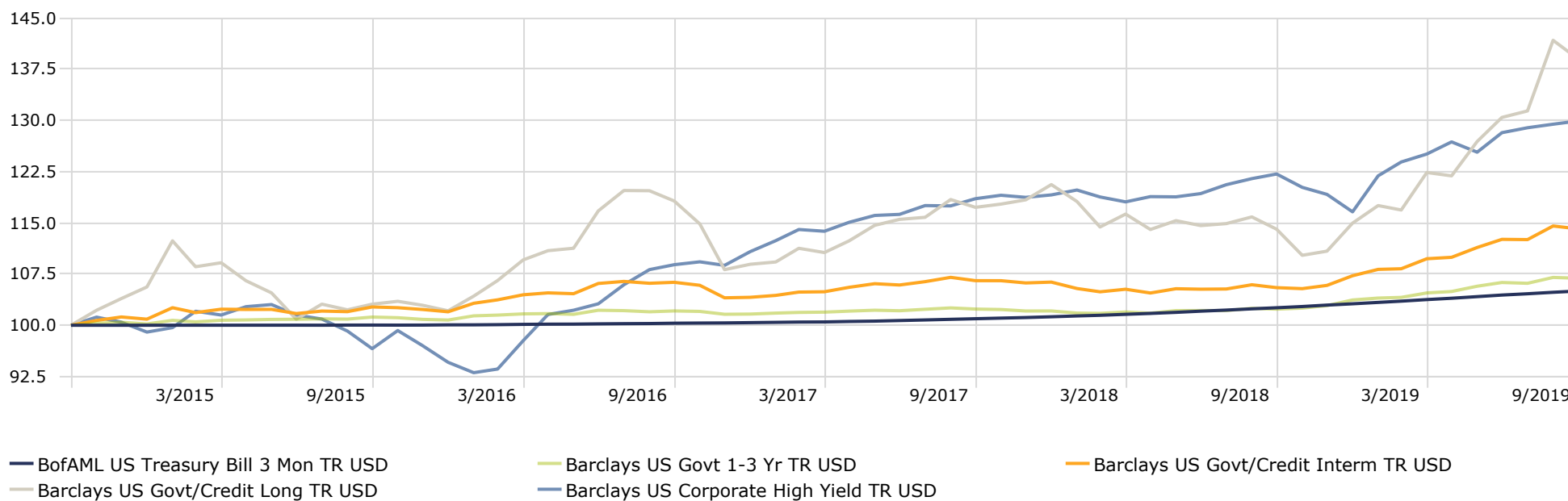
Milliman - Fixed Income Market

As of Date: 9/30/2019



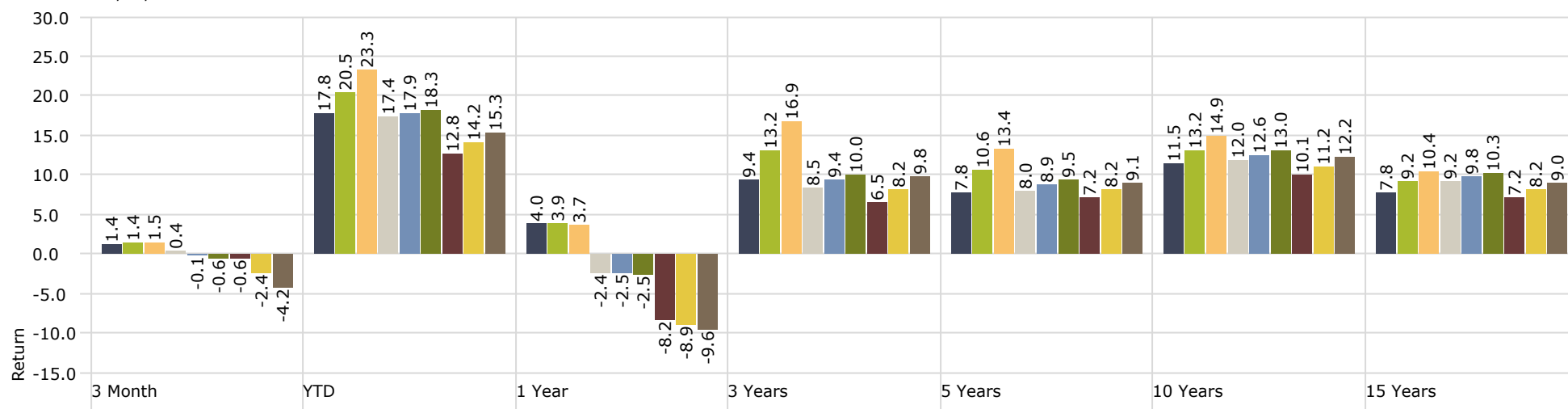
Milliman - Fixed Income Market

Time Period: 10/1/2014 to 9/30/2019



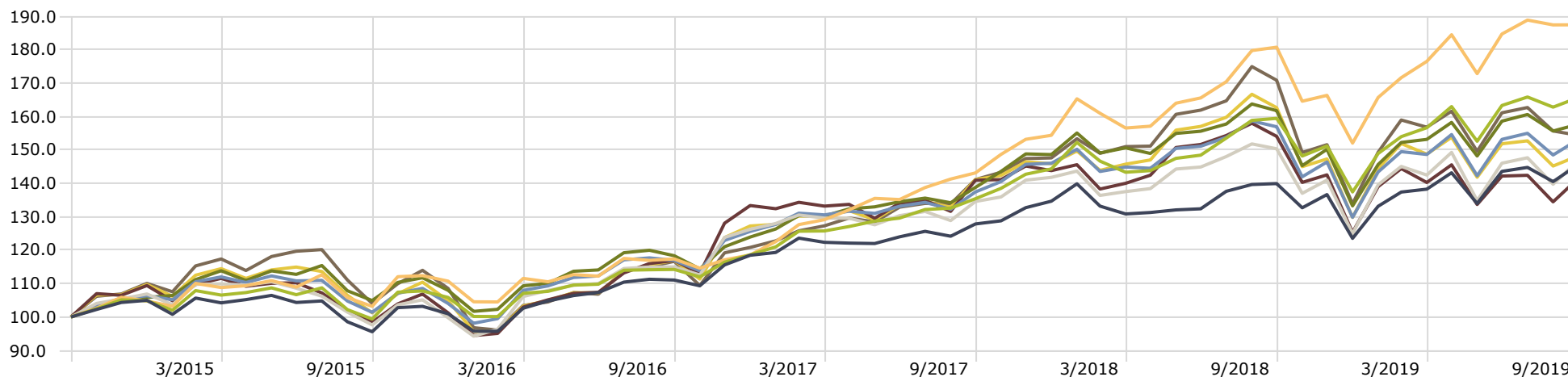
Milliman - US Equity

As of Date: 9/30/2019



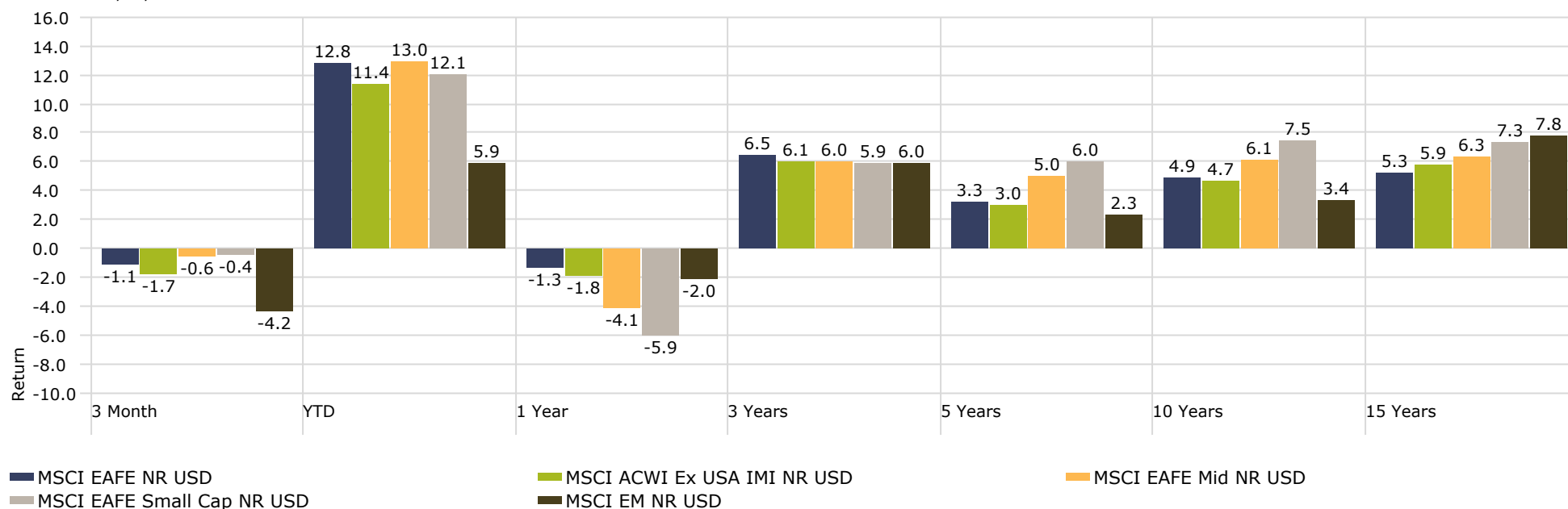
Milliman - US Equity

Time Period: 10/1/2014 to 9/30/2019



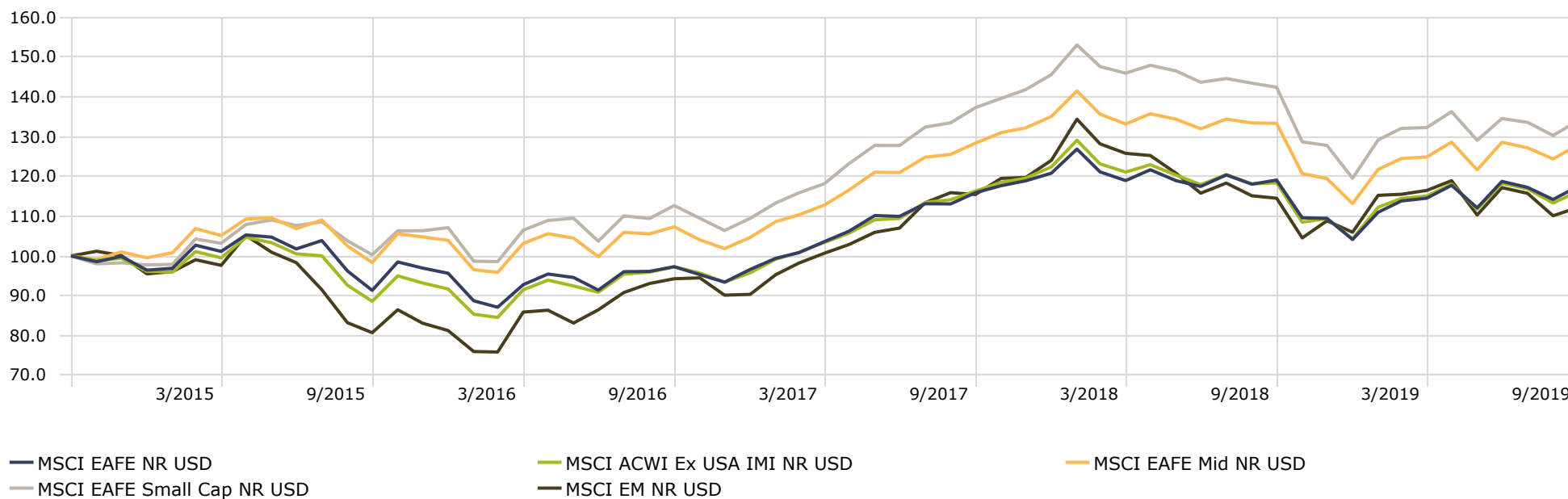
Milliman - International Equity Mkts

As of Date: 9/30/2019



Milliman - International Equity Mkts

Time Period: 10/1/2014 to 9/30/2019



Periodic Table

As of Date: 9/30/2019

Best ↑	MSCI EM NR USD 78.5	FTSE NAREIT All Equity REITs TR USD 27.9	BBgBarc US Govt/Credit Long TR USD 22.5	FTSE NAREIT All Equity REITs TR USD 19.7	Russell 2000 TR USD 38.8	FTSE NAREIT All Equity REITs TR USD 28.0	FTSE NAREIT All Equity REITs TR USD 2.8	WTexas Crude Int Oil BL 44.8	MSCI EM NR USD 37.3	BofAML US Treasury Bill 3 Mon TR USD 1.9	FTSE NAREIT All Equity REITs TR USD 28.5
	WTexas Crude Int Oil BL 78.0	Russell 2000 TR USD 26.9	FTSE NAREIT All Equity REITs TR USD 8.3	MSCI EM NR USD 18.2	S&P MidCap 400 TR 33.5	BBgBarc US Govt/Credit Long TR USD 19.3	S&P 500 TR USD 1.4	Russell 2000 TR USD 21.3	MSCI EAFE NR USD 25.0	BBgBarc US Govt/Credit Interm TR USD 0.9	BBgBarc US Govt/Credit Long TR USD 20.9
	BBgBarc US Corporate High Yield TR USD 58.2	S&P MidCap 400 TR 26.6	WTexas Crude Int Oil BL 8.2	S&P MidCap 400 TR 17.9	S&P 500 TR USD 32.4	S&P 500 TR USD 13.7	BBgBarc US Govt/Credit Interm TR USD 1.1	S&P MidCap 400 TR 20.7	S&P 500 TR USD 21.8	BBgBarc US Corporate High Yield TR USD -2.1	S&P 500 TR USD 20.6
	S&P MidCap 400 TR 37.4	MSCI EM NR USD 18.9	BBgBarc US Govt/Credit Interm TR USD 5.8	MSCI EAFE NR USD 17.3	MSCI EAFE NR USD 22.8	S&P MidCap 400 TR 9.8	BofAML US Treasury Bill 3 Mon TR USD 0.1	BBgBarc US Corporate High Yield TR USD 17.1	S&P MidCap 400 TR 16.2	FTSE NAREIT All Equity REITs TR USD -4.0	WTexas Crude Int Oil BL 19.8
	MSCI EAFE NR USD 31.8	BBgBarc US Corporate High Yield TR USD 15.1	BBgBarc US Corporate High Yield TR USD 5.0	Russell 2000 TR USD 16.3	BBgBarc US Corporate High Yield TR USD 7.4	Russell 2000 TR USD 4.9	MSCI EAFE NR USD -0.8	S&P 500 TR USD 12.0	Russell 2000 TR USD 14.6	S&P 500 TR USD -4.4	S&P MidCap 400 TR 17.9
	FTSE NAREIT All Equity REITs TR USD 28.0	WTexas Crude Int Oil BL 15.1	S&P 500 TR USD 2.1	S&P 500 TR USD 16.0	WTexas Crude Int Oil BL 6.9	BBgBarc US Govt/Credit Interm TR USD 3.1	S&P MidCap 400 TR -2.2	MSCI EM NR USD 11.2	WTexas Crude Int Oil BL 12.5	BBgBarc US Govt/Credit Long TR USD -4.7	Russell 2000 TR USD 14.2
	Russell 2000 TR USD 27.2	S&P 500 TR USD 15.1	BofAML US Treasury Bill 3 Mon TR USD 0.1	BBgBarc US Corporate High Yield TR USD 15.8	FTSE NAREIT All Equity REITs TR USD 2.9	BBgBarc US Corporate High Yield TR USD 2.5	BBgBarc US Govt/Credit Long TR USD -3.3	FTSE NAREIT All Equity REITs TR USD 8.6	BBgBarc US Govt/Credit Long TR USD 10.7	Russell 2000 TR USD -11.0	MSCI EAFE NR USD 12.8
	S&P 500 TR USD 26.5	BBgBarc US Govt/Credit Long TR USD 10.2	S&P MidCap 400 TR -1.7	BBgBarc US Govt/Credit Long TR USD 8.8	BofAML US Treasury Bill 3 Mon TR USD 0.1	BofAML US Treasury Bill 3 Mon TR USD 0.0	Russell 2000 TR USD -4.4	BBgBarc US Govt/Credit Long TR USD 6.7	FTSE NAREIT All Equity REITs TR USD 8.7	S&P MidCap 400 TR -11.1	BBgBarc US Corporate High Yield TR USD 11.4
	BBgBarc US Govt/Credit Interm TR USD 5.2	MSCI EAFE NR USD 7.8	Russell 2000 TR USD -4.2	BBgBarc US Govt/Credit Interm TR USD 3.9	BBgBarc US Govt/Credit Interm TR USD -0.9	MSCI EM NR USD -2.2	BBgBarc US Corporate High Yield TR USD -4.5	BBgBarc US Govt/Credit Interm TR USD 2.1	BBgBarc US Corporate High Yield TR USD 7.5	MSCI EAFE NR USD -13.8	BBgBarc US Govt/Credit Interm TR USD 6.4
	BBgBarc US Govt/Credit Long TR USD 1.9	BBgBarc US Govt/Credit Interm TR USD 5.9	MSCI EAFE NR USD -12.1	BofAML US Treasury Bill 3 Mon TR USD 0.1	MSCI EM NR USD -2.6	MSCI EAFE NR USD -4.9	MSCI EM NR USD -14.9	MSCI EAFE NR USD 1.0	BBgBarc US Govt/Credit Interm TR USD 2.1	MSCI EM NR USD -14.6	MSCI EM NR USD 5.9
Worst ↓	BofAML US Treasury Bill 3 Mon TR USD 0.2	BofAML US Treasury Bill 3 Mon TR USD 0.1	MSCI EM NR USD -18.4	WTexas Crude Int Oil BL -7.1	BBgBarc US Govt/Credit Long TR USD -8.8	WTexas Crude Int Oil BL -45.6	WTexas Crude Int Oil BL -30.5	BofAML US Treasury Bill 3 Mon TR USD 0.3	BofAML US Treasury Bill 3 Mon TR USD 0.9	WTexas Crude Int Oil BL -25.3	BofAML US Treasury Bill 3 Mon TR USD 1.8
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	YTD

SECTION II - Plan Level Exhibits

CITY OF DOVER, DELAWARE OTHER POSTEMPLOYMENT BENEFIT (OPEB)

Plan Assets

As of Date: 9/30/2019



	Assets (\$)	Assets (%)
Vanguard Emerging Mkts Stock Idx Instl	4,619,362.41	11.95
Vanguard Growth Index Institutional	4,268,143.78	11.04
Vanguard Mid-Cap Value Index Admiral	3,109,362.97	8.04
American Funds Washington Mutual R6	3,094,089.67	8.01
Morgan Stanley Inst Intl Advtg I	2,711,453.27	7.02
Janus Henderson Small Cap Value I	2,707,339.81	7.00
American Funds New Perspective R6	2,705,702.45	7.00
Vanguard Short-Term Bond Index Adm	2,325,901.76	6.02
Vanguard Real Estate Index Institutional	1,948,587.30	5.04
PGIM High Yield R6	1,933,113.66	5.00
Columbia Strategic Income Inst3	1,744,381.36	4.51
Vanguard Inflation-Protected Secs I	1,540,403.15	3.99
Federated Kaufmann Small Cap Instl	1,514,138.97	3.92
Wells Fargo Treasury Plus MMkt Inst	1,147,517.81	2.97
Vanguard Total Bond Market Index Adm	871,720.33	2.26
Dodge & Cox Income	870,006.59	2.25
PIMCO Long Duration Total Return Instl	770,327.76	1.99
Vanguard Long-Term Bond Index Investor	770,091.71	1.99
Total	38,651,644.76	100.00

Plan Assets

As of Date: 6/30/2019



	Assets (\$)	Assets (%)
Vanguard Emerging Mkts Stock Idx Instl	4,626,792.49	12.04
Vanguard Growth Index Institutional	4,199,319.53	10.93
Vanguard Mid-Cap Value Index Admiral	3,071,466.72	8.00
American Funds Washington Mutual R6	3,052,289.02	7.95
Invesco Oppenheimer International Gr R6	2,705,175.06	7.04
PGIM QMA Small-Cap Value R6	2,694,858.81	7.02
American Funds New Perspective R6	2,691,525.36	7.01
Vanguard Short-Term Bond Index Adm	2,253,994.27	5.87
PGIM High Yield R6	1,894,329.13	4.93
Vanguard Real Estate Index Institutional	1,850,431.39	4.82
Columbia Strategic Income Inst3	1,695,532.70	4.41
Federated Kaufmann Small Cap Instl	1,550,316.97	4.04
Vanguard Inflation-Protected Secs I	1,508,091.23	3.93
Wells Fargo Treasury Plus MMkt Inst	1,390,668.52	3.62
Vanguard Total Bond Market Index Adm	849,470.08	2.21
Dodge & Cox Income	848,988.68	2.21
Vanguard Long-Term Bond Index Investor	767,117.57	2.00
PIMCO Long Duration Total Return Instl	762,911.57	1.99
Total	38,413,279.10	100.00

Plan Style Box - Equity

As of Date: 9/30/2019

U.S Stock

	American Funds Washington M	Vanguard Growth Index Institi	Large
Vanguard Mid-Cap Value Inde:			Mid
Janus Henderson Small Cap V:		Federated Kaufmann Small Ca	Small
Value	Blend	Growth	

International Stock

Diversified Emerging Mkts Vanguard Emerging Mkts Stoc
Foreign Large Growth Morgan Stanley Inst Intl Advtg
World Large Stock American Funds New Perspect

Sector Stock

Real Estate Vanguard Real Estate Index Ir

Plan Style Box - Fixed Income

As of Date: 9/30/2019

Short Government	Intermediate Government	Long Government	Ultrashort Bond
Short-Term Bond Vanguard Short-Term Bond Index Adm	Intermediate Core Bond Vanguard Total Bond Market Index Adm	Long-Term Bond PIMCO Long Duration Total Return Instl Vanguard Long-Term Bond Index Investor	Multisector Bond
Nontraditional Bond Columbia Strategic Income Inst3	High Yield Bond PGIM High Yield R6	Inflation-Protected Bond Vanguard Inflation-Protected Secs I	Emerging Markets Bond
World Bond	Bank Loan	Diversified Emerging Mkts	Long-Only Debt
USD Government Bond	USD Diversified Bond	USD High Yield Bond	
Intermediate Core-Plus Bond Dodge & Cox Income			

Plan Style Box - Combined Groups

As of Date: 9/30/2019

Money Market - Taxable Wells Fargo Treasury Plus MMkt Inst			
--	--	--	--

Manager - Investment Policy Review

		Active Fund Criteria								Index Fund Criteria					
	Index Fund	3yr-Index	3yr-Peer	3yr-Alpha	3yr-Sharpe	5yr-Index	5yr-Peer	5yr-Alpha	5yr-Sharpe	3yr-Beta	3yr-TrackErr	5yr-Beta	5yr-TrackErr	Prospectus Net Expense Ratio	Mgr Rating
Wells Fargo Treasury Plus MMkt Inst														0.20	
Vanguard Inflation-Protected Secs I		x	✓	✓	✓	x	✓	✓	✓					0.07	Approve
Vanguard Short-Term Bond Index Adm	Yes									✓	✓	✓	✓	0.07	-
Dodge & Cox Income		✓	✓	✓	✓	✓	✓	✓	✓					0.42	Approve
Vanguard Total Bond Market Index Adm	Yes									✓	✓	✓	✓	0.05	Approve
Vanguard Long-Term Bond Index Investor	Yes									✓	✓	✓	✓	0.15	Approve
PIMCO Long Duration Total Return Instl		✓	✓	✓	x	✓	✓	✓	✓					0.97	Approve
PGIM High Yield R6		✓	✓	✓	✓	✓	✓	✓	✓					0.42	Approve
Columbia Strategic Income Inst3		✓	✓	✓	✓	✓	✓	✓	✓					0.61	Approve
American Funds Washington Mutual R6		✓	✓	✓	✓	✓	✓	✓	✓					0.27	Approve
Vanguard Growth Index Institutional	Yes									✓	✓	✓	✓	0.04	Approve
Vanguard Mid-Cap Value Index Admiral	Yes									✓	✓	✓	✓	0.07	Approve
Janus Henderson Small Cap Value I		✓	✓	✓	✓	✓	✓	✓	✓					0.88	Approve
Federated Kaufmann Small Cap Instl		✓	✓	✓	✓									0.91	*
Morgan Stanley Inst Intl Advtg I		✓	✓	✓	✓	✓	✓	✓	✓					1.00	Approve
American Funds New Perspective R6		✓	✓	✓	✓	✓	✓	✓	✓					0.45	Approve
Vanguard Emerging Mkts Stock Idx Instl	Yes									✓	x	✓	x	0.10	-
Vanguard Real Estate Index Institutional	Yes									✓	✓	✓	✓	0.10	Approve
OPEB Plan - Return															

Investment Policy Review Definitions

#Yr-Index - indicates whether the fund has beat its index over the time period
 #Yr-Peer - the fund return ranks in the top 1/2 of its peer group for the time period
 #Yr-Alpha - the fund Alpha is in the top 1/2 of its peer group for the time period
 #Yr-Sharpe - the fund Sharpe is in the top 1/2 of its peer group for the time period
 #Yr-Beta - the fund Beta is at or close to 1.0 for the time period
 #Yr-TrackErr - the fund Tracking Error is lower than 0.10 for the time period
 Expense - the fund Prospectus Net Expense Ratio

*Indicates that the fund has less than 5 years of data.

Plan Investment Performance

As of Date: 9/30/2019

	% Assets in Plan	Ticker	Expense Ratio	Morningstar Rating Overall	Return					% Rank Cat 3Mo	% Rank Cat 1Yr	% Rank Cat 3Yr	% Rank Cat 5Yr
					3 Month	1 Year	3 Years	5 Years	10 Years				
Money Market													
US Fund Money Market - Taxable													
Wells Fargo Treasury Plus MMkt Inst	2.97	PISXX	0.20		0.52	2.18	1.37	0.85	0.43				
ICE BofAML US 3M Trsy Bill TR USD					0.56	2.39	1.54	0.98	0.54				
Fixed Income													
US OE Inflation-Protected Bond													
Vanguard Inflation-Protected Secs I	3.99	VIPIX	0.07	★★★★	1.45	7.13	2.07	2.41	3.43	17	18	38	17
BBgBarc US Treasury US TIPS TR USD					1.35	7.13	2.21	2.45	3.46				
US OE Short-Term Bond													
Vanguard Short-Term Bond Index Adm	6.02	VBIRX	0.07	★★★	0.95	5.98	1.94	1.94	2.02	27	14	61	40
BBgBarc US 1-5Y GovCredit FIAdj TR USD					0.89	6.01	2.01	2.01	2.12				
US OE Intermediate-Term Bond													
Dodge & Cox Income	2.25	DODIX	0.42	★★★★	2.09	9.13	3.79	3.70	4.52	49	64	17	22
Vanguard Total Bond Market Index Adm	2.26	VBTLX	0.05	★★★	2.43	10.43	2.90	3.35	3.69	10	15	32	23
BBgBarc US Govt/Credit Interm TR USD					1.37	8.17	2.40	2.68	3.05				
US OE Long-Term Bond													
Vanguard Long-Term Bond Index Investor	1.99	VBLTX	0.15	★★★	6.74	21.93	5.37	6.70	7.29	4	9	68	52
PIMCO Long Duration Total Return Instl	1.99	PLRIX	0.97	★★★★	6.51	21.02	6.23	7.21	7.69	7	29	21	9
BBgBarc US L Govt/Credit FI Adj TR USD					6.59	21.88	5.56	6.81	7.42				
US OE High Yield Bond													
PGIM High Yield R6	5.00	PHYQX	0.42	★★★★★	1.61	8.11	6.85	6.09		20	7	3	2
BBgBarc High Yield Corporate TR USD					1.33	6.36	6.07	5.37	7.94				
US OE Nontraditional Bond													
Columbia Strategic Income Inst3	4.51	CPHUX	0.61	★★★★★	0.89	7.11	4.54	4.43		40	9	20	6
BBgBarc Global Aggregate TR USD					0.71	7.60	1.59	1.99	2.34				

Plan Investment Performance

As of Date: 9/30/2019

	% Assets in Plan	Ticker	Expense Ratio	Morningstar Rating Overall	Return					% Rank Cat 3Mo	% Rank Cat 1Yr	% Rank Cat 3Yr	% Rank Cat 5Yr
					3 Month	1 Year	3 Years	5 Years	10 Years				
Equity													
US OE Large Value													
American Funds Washington Mutual R6	8.01	RWMGX	0.27	★★★★★	1.69	6.14	13.19	10.09	13.08	41	19	23	36
Russell 1000 Value TR USD					1.36	4.00	9.43	7.79	11.46				
US OE Large Growth													
Vanguard Growth Index Institutional	11.04	VIGIX	0.04	★★★★	1.99	4.52	15.39	12.20	14.40	12	26	41	36
CRSP US Large Cap Growth TR USD					2.01	4.55	15.42	12.24	13.87				
US OE Mid-Cap Value													
Vanguard Mid-Cap Value Index Admiral	8.04	VMVAX	0.07	★★★★	1.88	2.30	8.83	8.37		28	21	21	16
CRSP US Mid Cap Value TR USD					1.88	2.34	8.87	8.41	12.97				
US OE Small Value													
Janus Henderson Small Cap Value I	7.00	JSCOX	0.88	★★★★★	1.21	1.49	8.44	8.83	10.11	22	3	8	4
Russell 2000 Value TR USD					-0.57	-8.24	6.54	7.17	10.06				
US OE Small Growth													
Federated Kaufmann Small Cap Instl	3.92	FKAIX	0.91	★★★★★	-6.38	1.91	21.16			79	6	1	
Russell 2000 Growth TR USD					-4.17	-9.63	9.79	9.08	12.25				
US OE Foreign Large Growth													
Morgan Stanley Inst Intl Advtg I	7.02	MFAIX	1.00	★★★★★	-0.63	4.90	16.41	13.47		33	16	1	1
MSCI World Large Growth NR USD					0.97	4.02	13.72	10.20	10.96				
US OE World Large Stock													
American Funds New Perspective R6	7.00	RNPGX	0.45	★★★★★	-0.42	2.88	12.38	9.72	10.67	59	36	14	11
MSCI ACWI NR USD					-0.03	1.38	9.71	6.65	8.35				
US OE Diversified Emerging Mkts													
Vanguard Emerging Mkts Stock Idx Instl	11.95	VEMIX	0.10	★★★	-3.57	1.31	5.31	2.05	3.21	48	34	49	47
FTSE EMs AC China A Incl (US RIC) NR USD					-3.63	1.16	5.41	2.34	3.55				

Plan Investment Performance

As of Date: 9/30/2019

	% Assets in Plan	Ticker	Expense Ratio	Morningstar Rating Overall	Return					% Rank Cat 3Mo	% Rank Cat 1Yr	% Rank Cat 3Yr	% Rank Cat 5Yr
					3 Month	1 Year	3 Years	5 Years	10 Years				
Equity													
US OE Real Estate													
Vanguard Real Estate Index Institutional	5.04	VGSNX	0.10	★★★★	7.42	19.92	7.10	9.96	12.91	41	26	49	36
Vanguard Real Estate Index					7.15	18.58	5.85	8.68	11.61				
Not Classified													
Miscellaneous													
OPEB Plan - Return	—				0.55	4.56	7.68	6.70					
Dover OPEB Index					1.06	3.51	7.20	6.21	7.44				

Plan Risk Analytics

As of Date: 9/30/2019

	Alpha				Beta		Sharpe Ratio			
	3 Years	3 Year % Rank	5 Years	5 Year % Rank	3 Years	5 Years	3 Years	3 Year % Rank	5 Years	5 Year % Rank
Money Market										
US Fund Money Market - Taxable										
Wells Fargo Treasury Plus MMkt Inst	-0.22	17	-0.16	18	0.35	0.36	-6.98	23	-4.54	34
Fixed Income										
US OE Inflation-Protected Bond										
Vanguard Inflation-Protected Secs I	-0.13	30	-0.05	13	0.99	1.01	0.16	24	0.40	9
US OE Short-Term Bond										
Vanguard Short-Term Bond Index Adm	-0.06	62	-0.07	63	0.97	1.00	0.23	58	0.64	49
US OE Intermediate-Term Bond										
Dodge & Cox Income	1.45	1	1.27	1	0.88	0.84	0.92	1	1.06	2
Vanguard Total Bond Market Index Adm	-0.06	39	-0.09	43	1.01	1.01	0.39	37	0.73	39
US OE Long-Term Bond										
Vanguard Long-Term Bond Index Investor	-0.22	93	-0.22	91	1.01	1.02	0.45	89	0.67	79
PIMCO Long Duration Total Return Instl	0.78	52	0.55	42	0.96	0.97	0.57	55	0.76	46
US OE High Yield Bond										
PGIM High Yield R6	0.70	9	0.98	6	1.01	0.93	1.22	7	1.00	8
US OE Nontraditional Bond										
Columbia Strategic Income Inst3	2.86	20	3.09	9	0.26	0.27	1.12	26	1.03	16
Equity										
US OE Large Value										
American Funds Washington Mutual R6	4.61	2	2.92	4	0.83	0.87	1.08	2	0.86	4
US OE Large Growth										
Vanguard Growth Index Institutional	-0.02	43	-0.03	36	1.00	1.00	1.03	35	0.87	29
US OE Mid-Cap Value										
Vanguard Mid-Cap Value Index Admiral	-0.03	24	-0.03	20	1.00	1.00	0.57	20	0.61	13

Plan Risk Analytics

As of Date: 9/30/2019

	Alpha				Beta		Sharpe Ratio			
	3 Years	3 Year % Rank	5 Years	5 Year % Rank	3 Years	5 Years	3 Years	3 Year % Rank	5 Years	5 Year % Rank
Equity										
US OE Small Value										
Janus Henderson Small Cap Value I	2.66	6	2.69	5	0.77	0.78	0.54	5	0.64	4
US OE Small Growth										
Federated Kaufmann Small Cap Instl	11.07	1			0.86		1.17	1		
US OE Foreign Large Growth										
Morgan Stanley Inst Intl Advtg I	4.55	1	4.51	1	0.82	0.83	1.20	1	1.04	1
US OE World Large Stock										
American Funds New Perspective R6	2.36	15	2.97	14	1.02	0.98	0.90	14	0.75	13
US OE Diversified Emerging Mkts										
Vanguard Emerging Mkts Stock Idx Instl	-0.12	50	-0.27	53	1.01	0.98	0.33	46	0.14	51
US OE Real Estate										
Vanguard Real Estate Index Institutional	1.17	50	1.16	46	1.00	1.00	0.47	49	0.66	44
Not Classified										
Miscellaneous										
OPEB Plan - Return	0.37	1	0.38	1	1.02	1.02	0.74	1	0.70	1

Plan Risk Analytics

As of Date: 9/30/2019

	Std Dev		Sortino Ratio		Information Ratio (arith)		Up Capture Ratio		Down Capture Ratio	
	3 Years	5 Years	3 Years	5 Years	3 Years	5 Years	3 Years	Peer group percentile	3 Years	Peer group percentile
Money Market										
US Fund Money Market - Taxable										
Wells Fargo Treasury Plus MMkt Inst	0.21	0.24	-3.11	-2.76	-3.50	-2.82	88.90	17		
Fixed Income										
US OE Inflation-Protected Bond										
Vanguard Inflation-Protected Secs I	3.27	3.57	0.22	0.67	-0.40	-0.09	98.16	11	100.96	71
US OE Short-Term Bond										
Vanguard Short-Term Bond Index Adm	1.51	1.47	0.36	1.16	-0.38	-0.39	96.44	16	96.06	87
US OE Intermediate-Term Bond										
Dodge & Cox Income	2.38	2.53	1.59	2.08	1.19	0.60	113.41	74	61.67	1
Vanguard Total Bond Market Index Adm	3.45	3.21	0.61	1.26	-0.22	-0.22	98.52	19	98.96	69
US OE Long-Term Bond										
Vanguard Long-Term Bond Index Investor	8.90	8.73	0.74	1.15	-0.31	-0.15	98.97	18	100.40	96
PIMCO Long Duration Total Return Instl	8.49	8.30	0.91	1.30	0.66	0.37	99.59	4	92.11	79
US OE High Yield Bond										
PGIM High Yield R6	4.20	5.02	2.55	1.94	1.12	0.81	106.35	5	93.34	35
US OE Nontraditional Bond										
Columbia Strategic Income Inst3	2.58	3.29	2.15	2.04	0.72	0.55	49.25	11	-16.33	57
Equity										
US OE Large Value										
American Funds Washington Mutual R6	10.50	10.67	1.66	1.39	1.14	0.77	98.15	57	68.80	8
US OE Large Growth										
Vanguard Growth Index Institutional	13.28	13.04	1.56	1.41	-0.98	-1.50	99.95	37	100.06	58
US OE Mid-Cap Value										
Vanguard Mid-Cap Value Index Admiral	13.75	12.88	0.83	0.92	-1.13	-1.20	99.81	47	99.97	29

Plan Risk Analytics

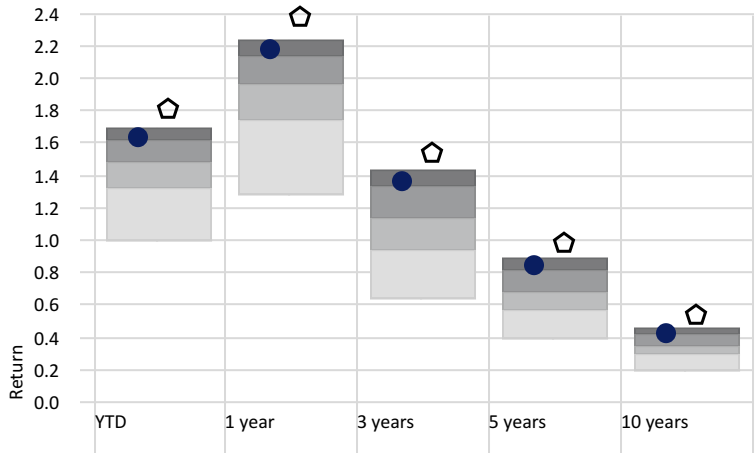
As of Date: 9/30/2019

	Std Dev		Sortino Ratio		Information Ratio (arith)		Up Capture Ratio		Down Capture Ratio	
	3 Years	5 Years	3 Years	5 Years	3 Years	5 Years	3 Years	Peer group percentile	3 Years	Peer group percentile
Equity										
US OE Small Value										
Janus Henderson Small Cap Value I	13.93	12.95	0.81	1.00	0.36	0.34	83.21	89	69.52	3
US OE Small Growth										
Federated Kaufmann Small Cap Instl	16.27		1.90		1.68		116.36	9	69.27	4
US OE Foreign Large Growth										
Morgan Stanley Inst Intl Advtg I	11.99	11.87	1.99	1.83	0.38	0.51	94.13	4	66.30	1
US OE World Large Stock										
American Funds New Perspective R6	11.98	11.92	1.40	1.20	0.82	1.01	107.82	20	92.15	34
US OE Diversified Emerging Mkts										
Vanguard Emerging Mkts Stock Idx Instl	13.34	15.06	0.51	0.22	-0.07	-0.15	100.28	47	100.98	53
US OE Real Estate										
Vanguard Real Estate Index Institutional	12.88	14.31	0.73	1.14	5.48	5.15	103.76	15	96.57	78
Not Classified										
Miscellaneous										
OPEB Plan - Return	8.27	8.31	1.09	1.09	0.61	0.68	103.56	1	100.70	1

SECTION III - Investment Detail Pages

Performance Versus Benchmark

Peer Group (5-95%): US Fund Money Market - Taxable



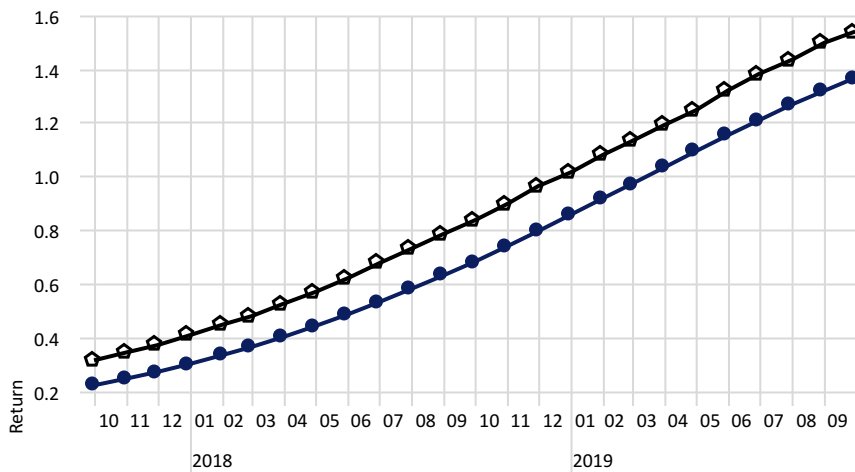
As of Date: 9/30/2019

	YTD	3 months	1 year	3 years	5 years	10 years
Wells Fargo Treasury Plus MMkt Inst	1.64	0.52	2.18	1.37	0.85	0.43
ICE BofAML US 3M Trsy Bill TR USD	1.81	0.56	2.39	1.54	0.98	0.54

Rolling Returns

Time Period: 10/1/2014 to 9/30/2019

Rolling Window: 3 Years 1 Month shift Calculation Benchmark: ICE BofAML US 3M Trsy Bill TR USD

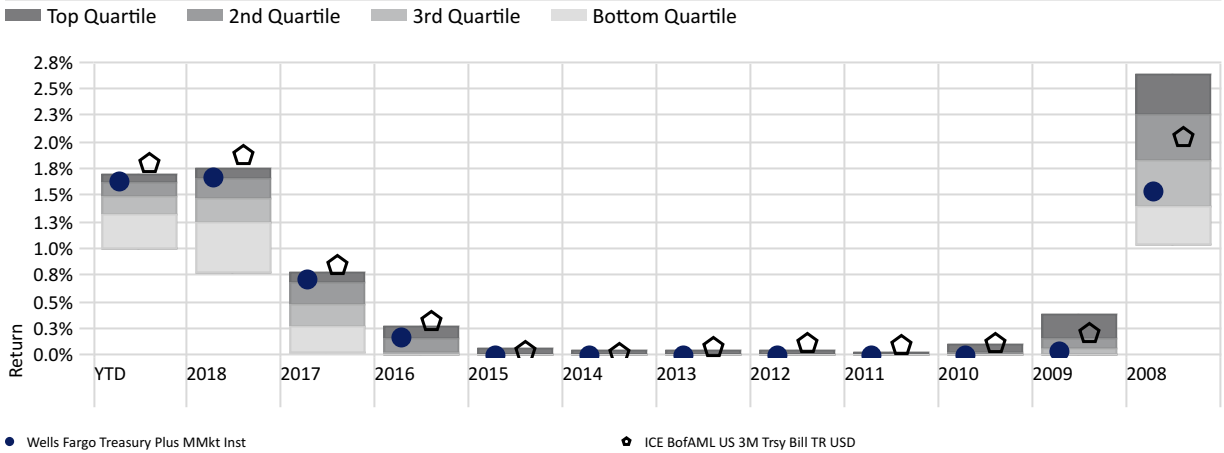


Wells Fargo Treasury Plus MMkt Inst ICE BofAML US 3M Trsy Bill TR USD

Source: Morningstar Direct

Performance Versus Benchmark

Peer Group (5-95%): US Fund Money Market - Taxable Calculation Benchmark: ICE BofAML US 3M Trsy Bill TR USD



As of Date: 9/30/2019 Calculation Benchmark: ICE BofAML US 3M Trsy Bill TR USD

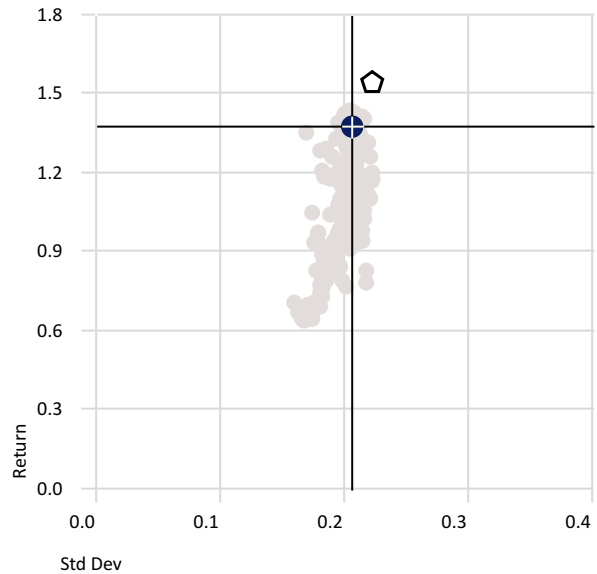
	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Wells Fargo Treasury Plus MMkt Inst	1.64	1.68	0.72	0.18	0.01	0.01	0.01	0.01	0.01	0.01	0.04	1.54
ICE BofAML US 3M Trsy Bill TR USD	1.81	1.87	0.86	0.33	0.05	0.03	0.07	0.11	0.10	0.13	0.21	2.06

Key Statistics

Arithmetic Mean 1 Yr (Mo-End)
Std Dev 1 Yr (Mo-End)
Alpha 1 Yr (Mo-End)
Sharpe Ratio 1 Yr (Mo-End)
Arithmetic Mean 3 Yr (Mo-End)
Std Dev 3 Yr (Mo-End)
Alpha 3 Yr (Mo-End)
Sharpe Ratio 3 Yr (Mo-End)
Arithmetic Mean 5 Yr (Mo-End)
Std Dev 5 Yr (Mo-End)
Alpha 5 Yr (Mo-End)
Sharpe Ratio 5 Yr (Mo-End)

Risk-Reward

Time Period: 10/1/2016 to 9/30/2019



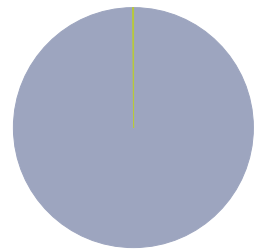
Vanguard Inflation-Protected Secs I

VIPIX



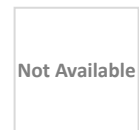
Asset Allocation

Portfolio Date: 8/31/2019



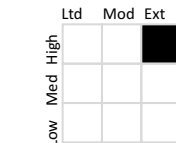
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %		
Consumer Cyclical %		
Financial Services %		
Real Estate %		
Consumer Defensive %		
Healthcare %		
Utilities %		
Communication Services %		
Energy %		
Industrials %		
Technology %		

Credit Quality

Avg Eff Duration	7.9
Avg Eff Maturity	8.7
Avg Cred Qual	AAA
Cred Qual AAA%	100.0
Cred Qual AA%	0.0
Cred Qual A%	0.0
Credit Qual BBB %	0.00
Credit Qual BB %	0.00
Credit Qual B %	0.00
Credit Qual Below B %	0.00

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
United States Treasury Notes 0.62%		1,371		4.78%
United States Treasury Notes 0.38%		1,106		3.86%
United States Treasury Notes 0.12%		1,087		3.79%
United States Treasury Notes 0.38%		1,073		3.74%
United States Treasury Notes 0.25%		1,056		3.68%
United States Treasury Notes 0.62%		1,036		3.61%
United States Treasury Notes 0.12%		1,015		3.54%
United States Treasury Notes 0.12%		1,010		3.52%
United States Treasury Notes 0.12%		969		3.38%
United States Treasury Notes 0.62%		937		3.27%
Turnover Ratio %			27.00	
% Asset in Top 10 Holdings			37.17	

Key Information

Ticker	VIPIX
Morningstar Category	US Fund Inflation-Protected Bond
Firm Name	Vanguard
Advisor	Vanguard Group Inc
Manager Name	Gemma Wright-Casparius
Inception Date	12/12/2003
Fund Size (Mil)	28,255.15
Prospectus Net Expense Ratio	0.07
Firm Name	Vanguard
Web Address	www.vanguard.com

Key Information

Morningstar Rating Overall	★★★★
Morningstar Rating 3 Yr	★★★
Morningstar Return % Rank Cat 3 Yr	37
Morningstar Rating 5 Yr	★★★★
Morningstar Return % Rank Cat 5 Yr	16
Morningstar Rating 10 Yr	★★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	14

Key Statistics

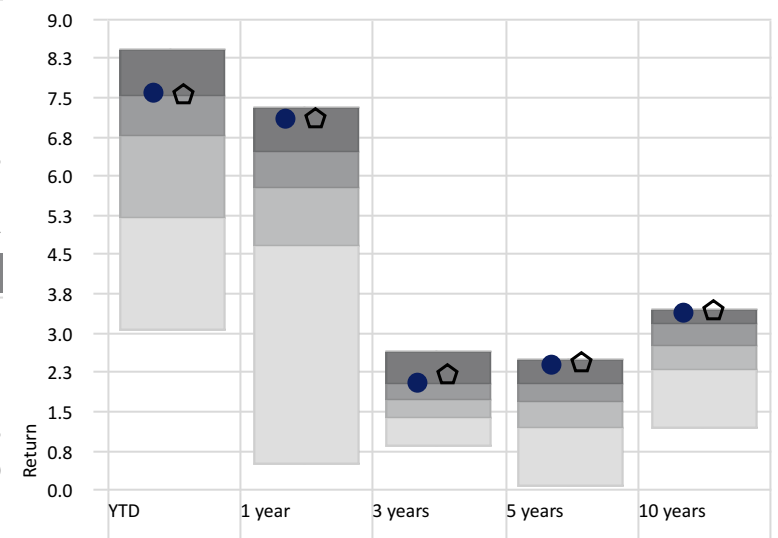
Arithmetic Mean 3 Yr (Mo-End)	0.18
Std Dev 3 Yr (Mo-End)	3.28
Alpha 3 Yr (Mo-End)	-0.67
Sharpe Ratio 3 Yr (Mo-End)	0.16
Arithmetic Mean 5 Yr (Mo-End)	0.20
Std Dev 5 Yr (Mo-End)	3.57
Alpha 5 Yr (Mo-End)	-0.91
Sharpe Ratio 5 Yr (Mo-End)	0.40

Investment Strategy

The investment seeks to provide inflation protection and income consistent with investment in inflation-indexed securities. The fund invests at least 80% of its assets in inflation-indexed bonds issued by the U.S. government, its agencies and instrumentalities, and corporations. It may invest in bonds of any maturity; however, its dollar-weighted average maturity is expected to be in the range of 7 to 20 years. At a minimum, all bonds purchased by the fund will be rated investment-grade or, if unrated, will be considered by the advisor to be investment-grade.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Infl Adj Bond

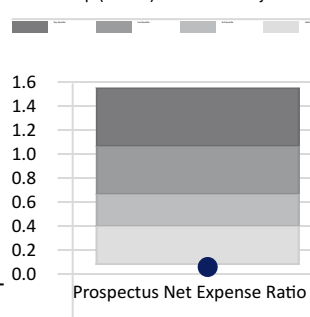


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Vanguard Inflation-Protected Secs I	7.63	7.13	2.07	2.41	3.43
BBgBarc US Treasury US TIPS TR USD	7.58	7.13	2.21	2.45	3.46
Median	6.77	5.76	1.73	1.71	2.78
5th Percentile	8.42	7.32	2.64	2.47	3.46
25th Percentile	7.53	6.48	2.04	2.03	3.17
50th Percentile	6.77	5.76	1.73	1.71	2.78
75th Percentile	5.21	4.68	1.40	1.20	2.32
95th Percentile	3.05	0.52	0.86	0.10	1.18

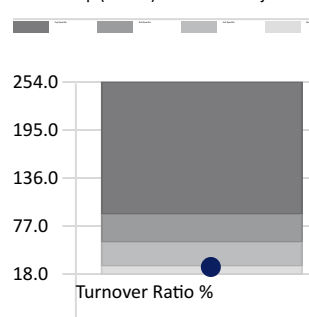
Expense vs Peer Group

Peer Group (5-95%): US OE Infl Adj Bond



Turnover vs Peer Group

Peer Group (5-95%): US OE Infl Adj Bond



Vanguard Inflation-Protected Secs I

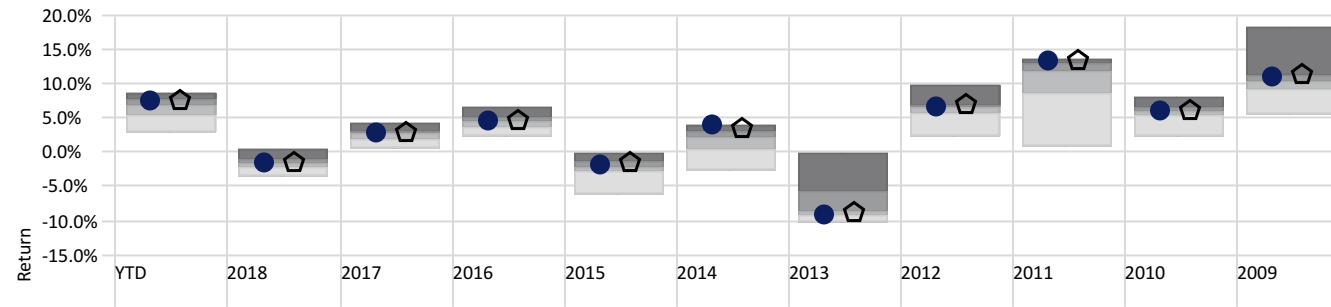
VIPIX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Infl Adj Bond Calculation Benchmark: BBgBarc US Treasury US TIPS TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



● Vanguard Inflation-Protected Secs I

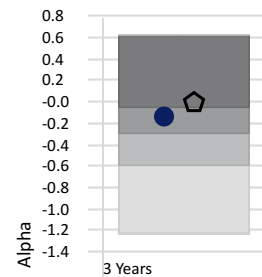
★ BBgBarc US Treasury US TIPS TR USD

As of Date: 9/30/2019 Calculation Benchmark: BBgBarc US Treasury US TIPS TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Vanguard Inflation-Protected Secs I	7.63	-1.40	2.97	4.63	-1.67	4.07	-8.83	6.87	13.39	6.33	11.03
BBgBarc US Treasury US TIPS TR USD	7.58	-1.26	3.01	4.68	-1.44	3.64	-8.61	6.98	13.56	6.31	11.41
Count	212	201	187	178	156	149	144	131	124	103	99
25th Percentile	7.53	-1.04	3.07	4.93	-1.30	2.98	-5.66	6.91	12.82	6.42	11.17
50th Percentile	6.77	-1.63	2.57	4.37	-2.14	2.22	-8.70	6.51	11.84	5.88	10.28
75th Percentile	5.21	-2.23	1.72	3.57	-2.88	0.23	-9.13	5.70	8.55	5.21	9.19

3 Yr Alpha

Peer Group (5-95%): US OE Infl Adj Bond



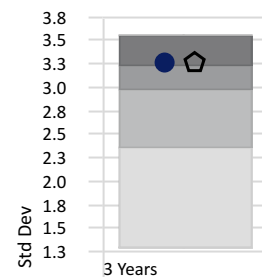
3 Yr Sharpe

Peer Group (5-95%): US OE Infl Adj Bond



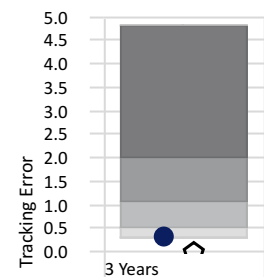
3 Yr Std Deviation

Peer Group (5-95%): US OE Infl Adj Bond



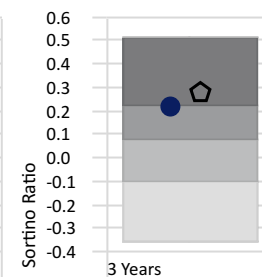
3 Yr Tracking Error

Peer Group (5-95%): US OE Infl Adj Bond



3 Yr Sortino

Peer Group (5-95%): US OE Infl Adj Bond



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years

US OE Inflation-Protected Bond

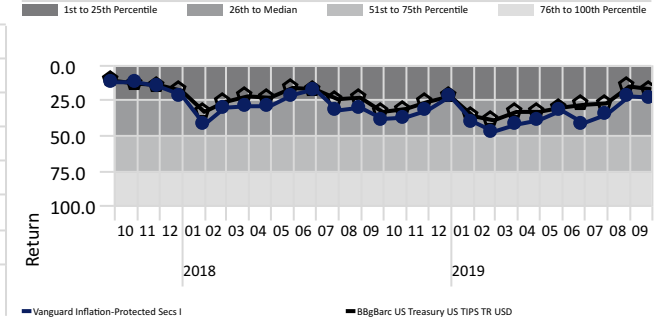
Vanguard Inflation-Protected Secs I	3.27	0.16	-0.13	0.99	0.22	-0.40	41.67	0.35
BBgBarc US Treasury US TIPS TR USD	3.28	0.20			0.29			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

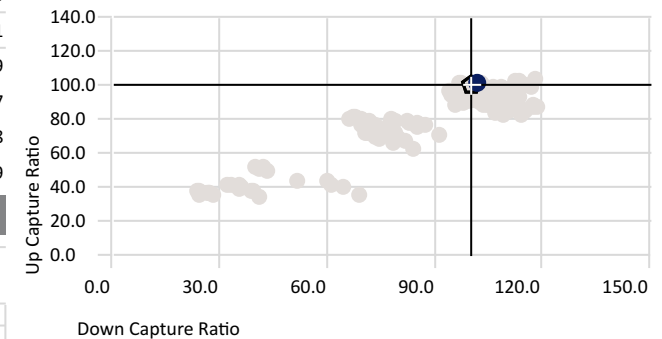
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: BBgBarc US Treasury US TIPS TR USD



Up/Down Market Capture Ratio

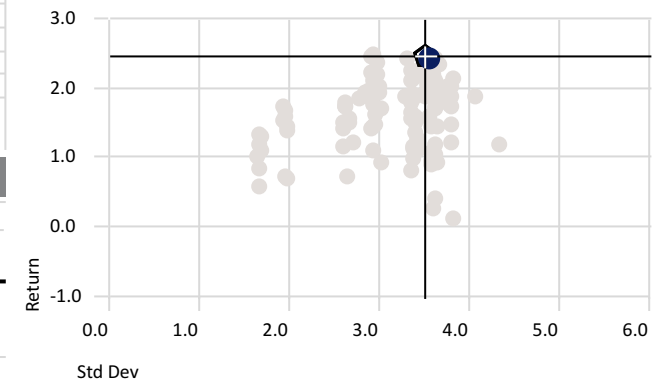
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: BBgBarc US Treasury US TIPS TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



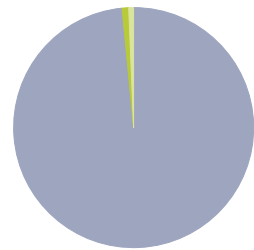
Vanguard Short-Term Bond Index Adm

VBIRX



Asset Allocation

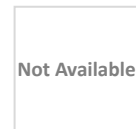
Portfolio Date: 9/30/2019



• Stock	0.0	%
• Bond	98.5	
• Cash	0.9	
• Other	0.7	
Total	100.0	

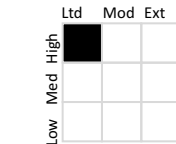
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv Bmk1
Basic Materials %	0.0
Consumer Cyclical %	0.0
Financial Services %	100.0
Real Estate %	0.0
Consumer Defensive %	0.0
Healthcare %	0.0
Utilities %	0.0
Communication Services %	0.0
Energy %	0.0
Industrials %	0.0
Technology %	0.0

Credit Quality

Avg Eff Duration	2.7
Avg Eff Maturity	2.9
Avg Cred Qual	AA
Cred Qual AAA%	
Cred Qual AA%	
Cred Qual A%	
Credit Qual BBB %	
Credit Qual BB %	
Credit Qual B %	
Credit Qual Below B %	

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
United States Treasury Notes 1.25%		1,076		2.23%
United States Treasury Notes 1.25%		863		1.79%
United States Treasury Notes 1.12%		607		1.26%
United States Treasury Notes 1.12%		543		1.13%
United States Treasury Notes 2.12%		531		1.10%
United States Treasury Notes 1.38%		511		1.06%
United States Treasury Notes 1.38%		503		1.04%
United States Treasury Notes 2.62%		495		1.02%
United States Treasury Notes 2.75%		487		1.01%
United States Treasury Notes 1.88%		482		1.00%
Turnover Ratio %			48.00	
% Asset in Top 10 Holdings			13.21	

Key Information

Ticker	VBIRX
Morningstar Category	US Fund Short-Term Bond
Firm Name	Vanguard
Advisor	Vanguard Group Inc
Manager Name	Joshua C. Barrickman
Inception Date	11/12/2001
Fund Size (Mil)	48,182.60
Prospectus Net Expense Ratio	0.07
Firm Name	Vanguard
Web Address	www.vanguard.com

Key Information

Morningstar Rating Overall	★★★
Morningstar Rating 3 Yr	★★★
Morningstar Return % Rank Cat 3 Yr	61
Morningstar Rating 5 Yr	★★★
Morningstar Return % Rank Cat 5 Yr	40
Morningstar Rating 10 Yr	★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	57

Key Statistics

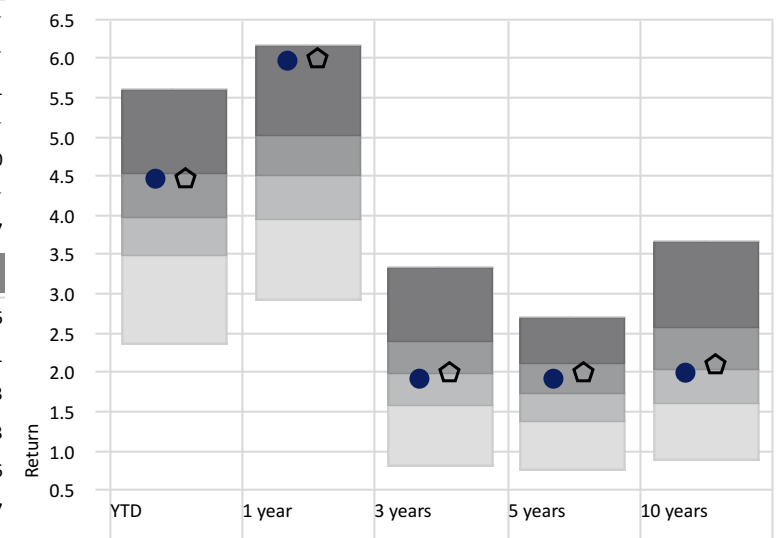
Arithmetic Mean 3 Yr (Mo-End)	0.16
Std Dev 3 Yr (Mo-End)	1.51
Alpha 3 Yr (Mo-End)	-0.23
Sharpe Ratio 3 Yr (Mo-End)	0.23
Arithmetic Mean 5 Yr (Mo-End)	0.16
Std Dev 5 Yr (Mo-End)	1.47
Alpha 5 Yr (Mo-End)	-0.11
Sharpe Ratio 5 Yr (Mo-End)	0.64

Investment Strategy

The investment seeks to track the performance of Bloomberg Barclays U.S. 1-5 Year Government/Credit Float Adjusted Index. Bloomberg Barclays U.S. 1-5 Year Government/Credit Float Adjusted Index includes all medium and larger issues of U.S. government, investment-grade corporate, and investment-grade international dollar-denominated bonds that have maturities between 1 and 5 years and are publicly issued. All of its investments will be selected through the sampling process, and at least 80% of its assets will be invested in bonds held in the index.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Short Term Bond

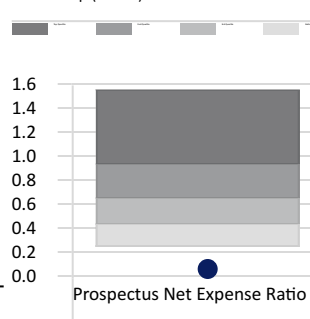


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Vanguard Short-Term Bond Index Adm	4.47	5.98	1.94	1.94	2.02
BBgBarc US 1-5Y GovCredit FIAAdj TR USD	4.48	6.01	2.01	2.01	2.12
Median	3.98	4.51	1.98	1.74	2.04
5th Percentile	5.60	6.16	3.32	2.70	3.67
25th Percentile	4.52	5.00	2.39	2.10	2.57
50th Percentile	3.98	4.51	1.98	1.74	2.04
75th Percentile	3.48	3.96	1.57	1.37	1.60
95th Percentile	2.38	2.91	0.81	0.75	0.89

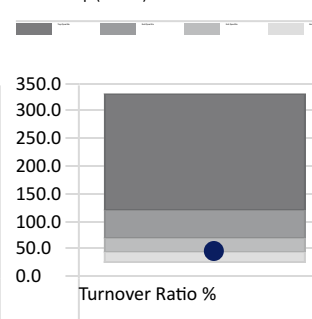
Expense vs Peer Group

Peer Group (5-95%): US OE Short Term Bond



Turnover vs Peer Group

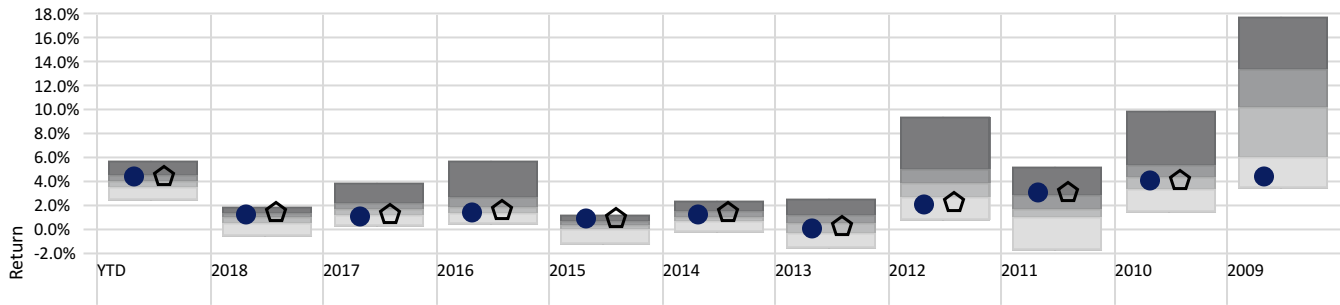
Peer Group (5-95%): US OE Short Term Bond



Performance Relative to Peer Group

Peer Group (5-95%): US OE Short Term Bond Calculation Benchmark: BBgBarc US 1-5Y GovCredit FIAdj TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



● Vanguard Short-Term Bond Index Adm

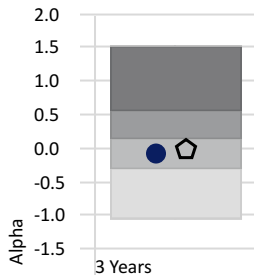
⬠ BBgBarc US 1-5Y GovCredit FIAdj TR USD

As of Date: 9/30/2019 Calculation Benchmark: BBgBarc US 1-5Y GovCredit FIAdj TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Vanguard Short-Term Bond Index Adm	4.47	1.35	1.18	1.49	0.92	1.26	0.17	2.05	3.08	4.03	4.38
BBgBarc US 1-5Y GovCredit FIAdj TR USD	4.48	1.38	1.27	1.57	0.97	1.43	0.29	2.24	3.13	4.08	
Count	546	507	473	457	427	396	370	320	304	284	268
25th Percentile	4.52	1.28	2.17	2.65	0.66	1.45	1.14	5.00	2.71	5.35	13.35
50th Percentile	3.98	0.94	1.54	1.80	0.32	0.94	0.39	3.86	1.67	4.23	10.10
75th Percentile	3.48	0.41	1.08	1.25	-0.12	0.55	-0.33	2.62	0.99	3.26	6.00

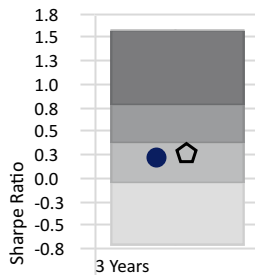
3 Yr Alpha

Peer Group (5-95%): US OE Short Term Bond



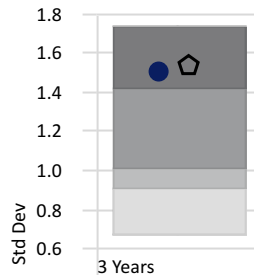
3 Yr Sharpe

Peer Group (5-95%): US OE Short Term Bond



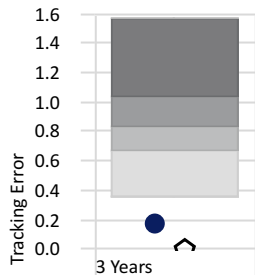
3 Yr Std Deviation

Peer Group (5-95%): US OE Short Term Bond



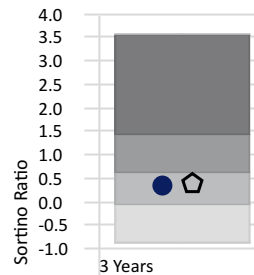
3 Yr Tracking Error

Peer Group (5-95%): US OE Short Term Bond



3 Yr Sortino

Peer Group (5-95%): US OE Short Term Bond



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Vanguard Short-Term Bond Index Adm	1.51	0.23	-0.06	0.97	0.36	-0.38	44.44	0.18
BBgBarc US 1-5Y GovCredit FIAdj TR USD	1.54	0.27			0.43			

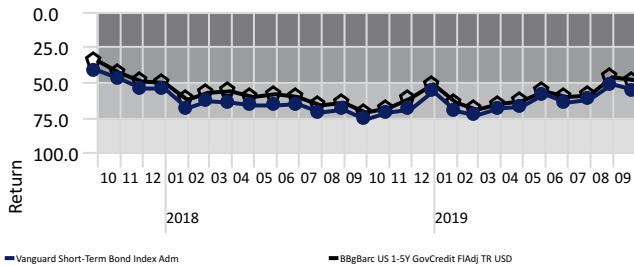
Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

Rolling Window: 3 Years 1 Month shift Calculation Benchmark: BBgBarc US 1-5Y GovCredit FIAdj TR USD

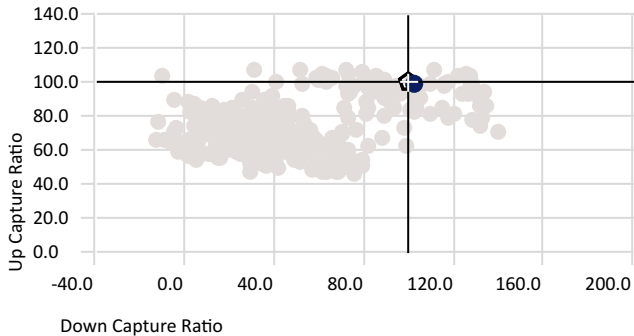
1st to 25th Percentile 26th to Median 51st to 75th Percentile 76th to 100th Percentile



Up/Down Market Capture Ratio

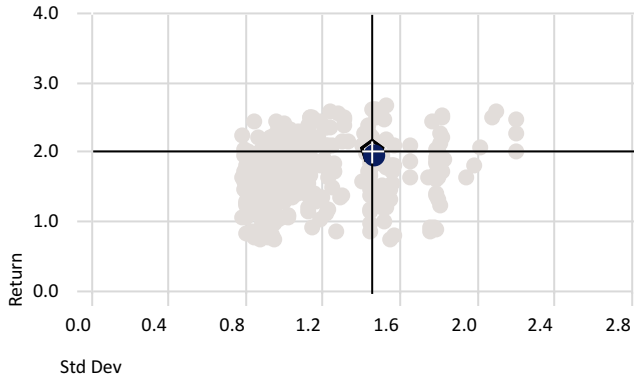
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: BBgBarc US 1-5Y GovCredit FIAdj TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



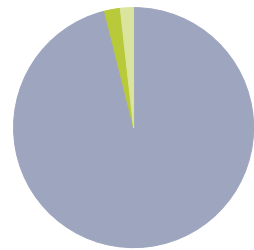
Dodge & Cox Income

DODIX



Asset Allocation

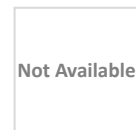
Portfolio Date: 6/30/2019



• Stock	0.0	%
• Bond	96.1	
• Cash	2.1	
• Other	1.8	
Total	100.0	

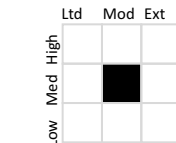
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %		
Consumer Cyclical %		
Financial Services %		
Real Estate %		
Consumer Defensive %		
Healthcare %		
Utilities %		
Communication Services %		
Energy %		
Industrials %		
Technology %		

Credit Quality

Avg Eff Duration	4.2
Avg Eff Maturity	8.2
Avg Cred Qual	A
Cred Qual AAA%	49.0
Cred Qual AA%	5.9
Cred Qual A%	6.8
Credit Qual BBB %	32.30
Credit Qual BB %	6.00
Credit Qual B %	0.00
Credit Qual Below B %	0.01

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
Federal National Mortgage Association 4.5%		842		1.41%
Federal National Mortgage Association 4.5%		761		1.27%
United States Treasury Notes 2.5%		728		1.21%
Imperial Tobacco Finance plc 4.25%		623		1.04%
United States Treasury Notes 2.38%		619		1.03%
United States Treasury Notes 1.75%		608		1.02%
Federal National Mortgage Association 4.5%		608		1.02%
United States Treasury Notes 3%		600		1.00%
Verizon Communications Inc. 5.01%		572		0.95%
Federal Home Loan Mortgage Corporation 4.5%		539		0.90%
Turnover Ratio %				37.00
% Asset in Top 10 Holdings				10.72

Key Information

Ticker	DODIX
Morningstar Category	US Fund Intermediate Core-Plus Bond
Firm Name	Dodge & Cox
Advisor	Dodge & Cox
Manager Name	Multiple
Inception Date	1/3/1989
Fund Size (Mil)	62,311.08
Prospectus Net Expense Ratio	0.42
Firm Name	Dodge & Cox
Web Address	www.dodgeandcox.com

Key Information

Morningstar Rating Overall	★★★★
Morningstar Rating 3 Yr	★★★★
Morningstar Return % Rank Cat 3 Yr	16
Morningstar Rating 5 Yr	★★★★
Morningstar Return % Rank Cat 5 Yr	21
Morningstar Rating 10 Yr	★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	36

Key Statistics

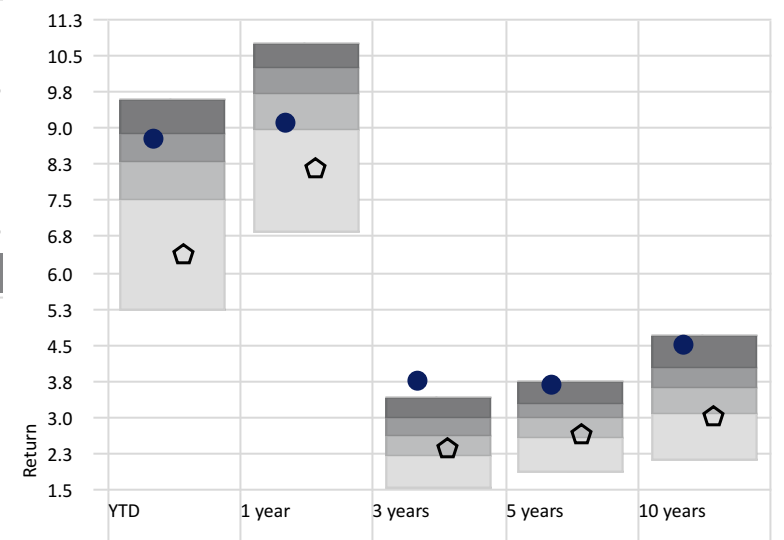
Arithmetic Mean 3 Yr (Mo-End)	0.31
Std Dev 3 Yr (Mo-End)	2.38
Alpha 3 Yr (Mo-End)	1.31
Sharpe Ratio 3 Yr (Mo-End)	0.92
Arithmetic Mean 5 Yr (Mo-End)	0.31
Std Dev 5 Yr (Mo-End)	2.53
Alpha 5 Yr (Mo-End)	1.15
Sharpe Ratio 5 Yr (Mo-End)	1.06

Investment Strategy

The investment seeks a high and stable rate of current income, consistent with long-term preservation of capital. The fund invests in a diversified portfolio of bonds and other debt securities. Under normal circumstances, the fund will invest at least 80% of its total assets in (1) investment-grade debt securities and (2) cash equivalents. "Investment grade" means securities rated Baa3 or higher by Moody's Investors Service, or BBB- or higher by Standard & Poor's Ratings Group or Fitch Ratings, or equivalently rated by any nationally recognized statistical rating organization, or, if unrated, deemed to be of similar quality by Dodge & Cox.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Intermediate Term Bond

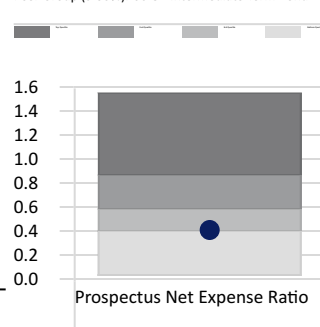


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Dodge & Cox Income	8.81	9.13	3.79	3.70	4.52
BBgBarc US Govt/Credit Interm TR USD	6.41	8.17	2.40	2.68	3.05
Median	8.31	9.69	2.62	2.98	3.61
5th Percentile	9.57	10.73	3.40	3.73	4.70
25th Percentile	8.87	10.25	3.00	3.28	4.02
50th Percentile	8.31	9.69	2.62	2.98	3.61
75th Percentile	7.52	8.95	2.20	2.60	3.08
95th Percentile	5.25	6.83	1.56	1.90	2.11

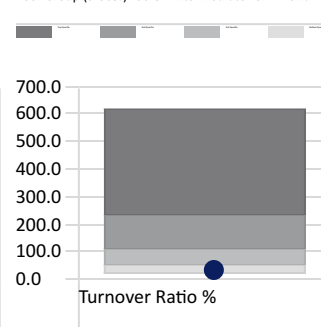
Expense vs Peer Group

Peer Group (5-95%): US OE Intermediate Term Bond



Turnover vs Peer Group

Peer Group (5-95%): US OE Intermediate Term Bond



Dodge & Cox Income

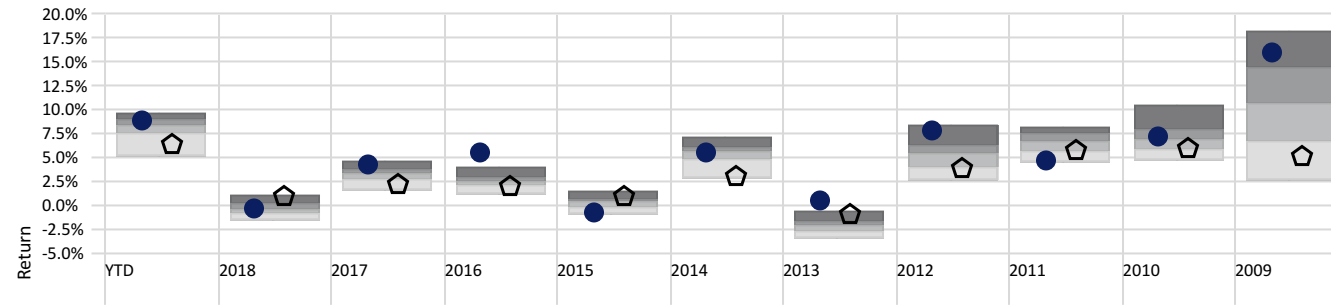
DODIX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Intermediate Term Bond Calculation Benchmark: BBgBarc US Govt/Credit Interm TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



Dodge & Cox Income

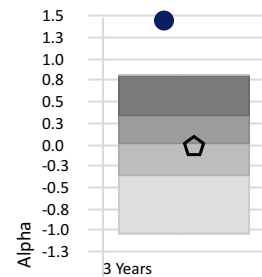
BBgBarc US Govt/Credit Interm TR USD

As of Date: 9/30/2019 Calculation Benchmark: BBgBarc US Govt/Credit Interm TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Dodge & Cox Income	8.81	-0.31	4.36	5.61	-0.59	5.48	0.64	7.94	4.76	7.17	16.05
BBgBarc US Govt/Credit Interm TR USD	6.41	0.88	2.14	2.08	1.07	3.13	-0.86	3.89	5.80	5.89	5.24
Count	394	375	354	330	307	299	291	269	252	240	223
25th Percentile	8.87	0.05	3.76	2.89	0.60	5.99	-1.64	6.24	7.39	7.86	14.40
50th Percentile	8.31	-0.41	3.26	2.46	0.26	5.55	-2.18	5.31	6.63	6.85	10.48
75th Percentile	7.52	-0.83	2.73	2.01	-0.18	4.76	-2.69	3.90	5.65	5.87	6.57

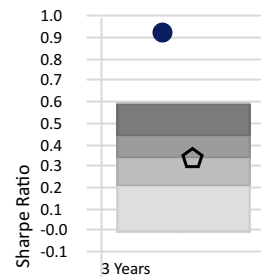
3 Yr Alpha

Peer Group (5-95%): US OE Intermediate Term Bond



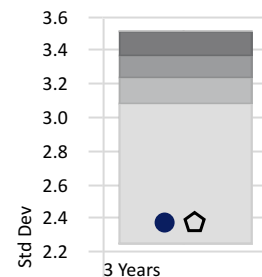
3 Yr Sharpe

Peer Group (5-95%): US OE Intermediate Term Bond



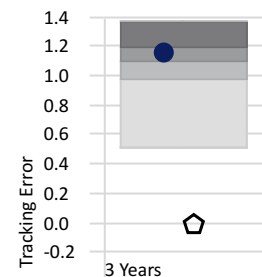
3 Yr Std Deviation

Peer Group (5-95%): US OE Intermediate Term Bond



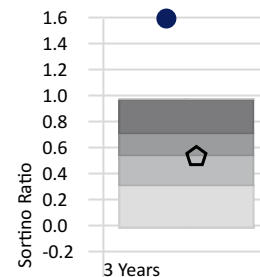
3 Yr Tracking Error

Peer Group (5-95%): US OE Intermediate Term Bond



3 Yr Sortino

Peer Group (5-95%): US OE Intermediate Term Bond



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Dodge & Cox Income	2.38	0.92	1.45	0.88	1.59	1.19	69.44	1.16
BBgBarc US Govt/Credit Interm TR USD	2.38	0.34			0.54			

US OE Intermediate-Term Bond

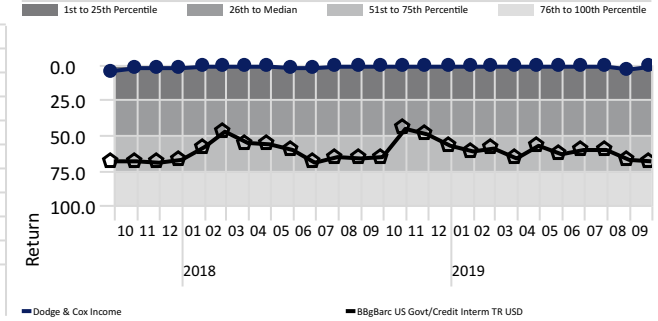
Dodge & Cox Income	2.38	0.92	1.45	0.88	1.59	1.19	69.44	1.16
BBgBarc US Govt/Credit Interm TR USD	2.38	0.34			0.54			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

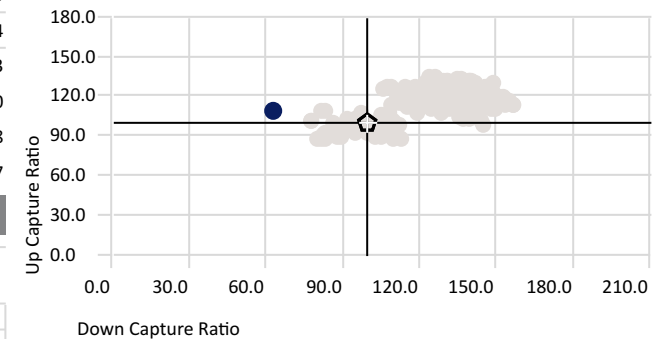
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: BBgBarc US Govt/Credit Interm TR USD



Up/Down Market Capture Ratio

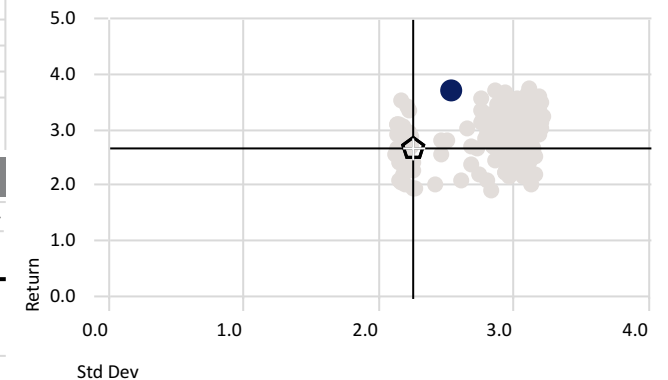
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: BBgBarc US Govt/Credit Interm TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



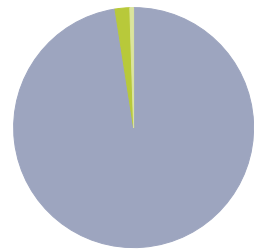
Vanguard Total Bond Market Index Adm

VBTLX



Asset Allocation

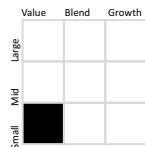
Portfolio Date: 8/31/2019



Stock	0.0	%
Bond	97.5	
Cash	2.0	
Other	0.5	
Total	100.0	

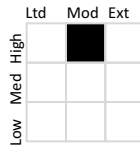
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	0.0	
Consumer Cyclical %	0.0	
Financial Services %	0.0	
Real Estate %	0.0	
Consumer Defensive %	0.0	
Healthcare %	100.0	
Utilities %	0.0	
Communication Services %	0.0	
Energy %	0.0	
Industrials %	0.0	
Technology %	0.0	

Credit Quality

Avg Eff Duration	6.2
Avg Eff Maturity	8.3
Avg Cred Qual	AA
Cred Qual AAA%	67.7
Cred Qual AA%	3.5
Cred Qual A%	11.2
Credit Qual BBB %	17.72
Credit Qual BB %	0.00
Credit Qual B %	0.00
Credit Qual Below B %	0.00

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
Cmt Market Liquidity Rate		4,817		1.97%
Federal National Mortgage Association 3.5%		1,073		0.44%
United States Treasury Notes 2.88%		1,049		0.43%
United States Treasury Notes 2.12%		1,012		0.41%
United States Treasury Notes 2.12%		992		0.41%
United States Treasury Bonds 2.88%		991		0.41%
United States Treasury Notes 3.12%		987		0.40%
United States Treasury Notes 1.75%		971		0.40%
United States Treasury Notes 2%		955		0.39%
United States Treasury Notes 2.38%		912		0.37%
Turnover Ratio %				54.00
% Asset in Top 10 Holdings				4.03

Key Information

Ticker	VBTLX
Morningstar Category	US Fund Intermediate Core Bond
Firm Name	Vanguard
Advisor	Vanguard Group Inc
Manager Name	Joshua C. Barrickman
Inception Date	11/12/2001
Fund Size (Mil)	241,308.56
Prospectus Net Expense Ratio	0.05
Firm Name	Vanguard
Web Address	www.vanguard.com

Key Information

Morningstar Rating Overall	★★★
Morningstar Rating 3 Yr	★★★
Morningstar Return % Rank Cat 3 Yr	32
Morningstar Rating 5 Yr	★★★★
Morningstar Return % Rank Cat 5 Yr	23
Morningstar Rating 10 Yr	★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	48

Key Statistics

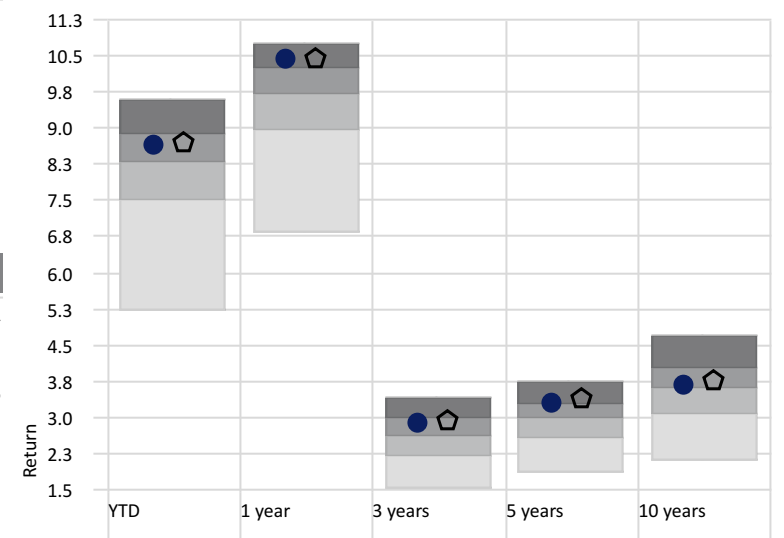
Arithmetic Mean 3 Yr (Mo-End)	0.24
Std Dev 3 Yr (Mo-End)	3.45
Alpha 3 Yr (Mo-End)	-0.06
Sharpe Ratio 3 Yr (Mo-End)	0.39
Arithmetic Mean 5 Yr (Mo-End)	0.28
Std Dev 5 Yr (Mo-End)	3.22
Alpha 5 Yr (Mo-End)	-0.12
Sharpe Ratio 5 Yr (Mo-End)	0.73

Investment Strategy

The investment seeks the performance of Bloomberg Barclays U.S. Aggregate Float Adjusted Index. Bloomberg Barclays U.S. Aggregate Float Adjusted Index represents a wide spectrum of public, investment-grade, taxable, fixed income securities in the United States-including government, corporate, and international dollar-denominated bonds, as well as mortgage-backed and asset-backed securities-all with maturities of more than 1 year. All of its investments will be selected through the sampling process, and at least 80% of its assets will be invested in bonds held in the index.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Intermediate Term Bond

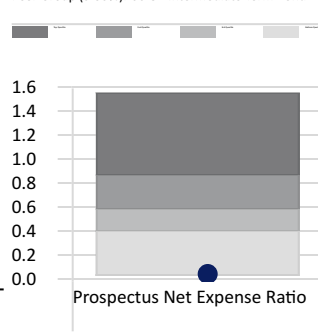


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Vanguard Total Bond Market Index Adm	8.68	10.43	2.90	3.35	3.69
BBgBarc US Agg Float Adj TR USD	8.72	10.44	2.96	3.40	3.79
Median	8.31	9.69	2.62	2.98	3.61
5th Percentile	9.57	10.73	3.40	3.73	4.70
25th Percentile	8.87	10.25	3.00	3.28	4.02
50th Percentile	8.31	9.69	2.62	2.98	3.61
75th Percentile	7.52	8.95	2.20	2.60	3.08
95th Percentile	5.25	6.83	1.56	1.90	2.11

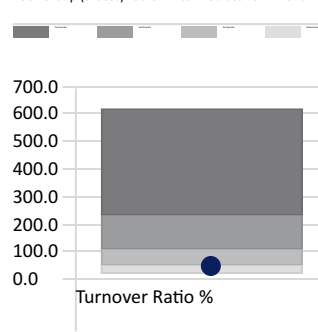
Expense vs Peer Group

Peer Group (5-95%): US OE Intermediate Term Bond



Turnover vs Peer Group

Peer Group (5-95%): US OE Intermediate Term Bond



Vanguard Total Bond Market Index Adm

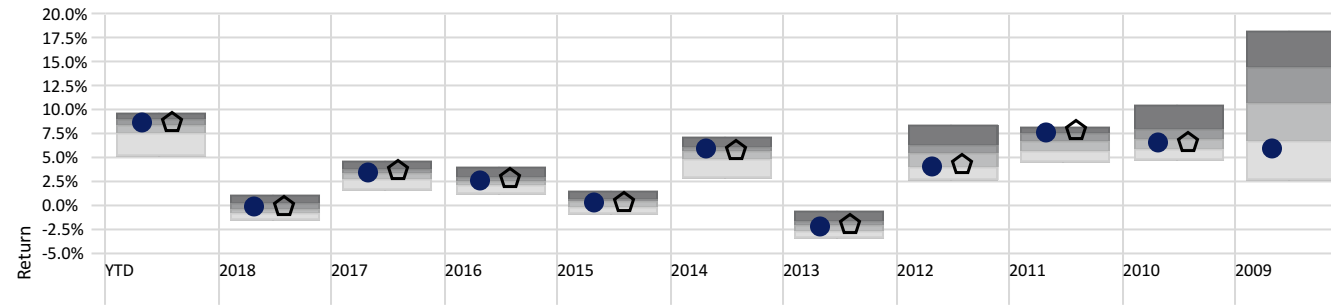
VBTLX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Intermediate Term Bond Calculation Benchmark: BBgBarc US Agg Float Adj TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



● Vanguard Total Bond Market Index Adm

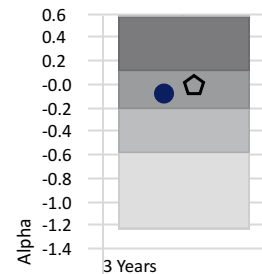
⬠ BBgBarc US Agg Float Adj TR USD

As of Date: 9/30/2019 Calculation Benchmark: BBgBarc US Agg Float Adj TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Vanguard Total Bond Market Index Adm	8.68	-0.03	3.56	2.60	0.40	5.89	-2.15	4.15	7.69	6.54	6.04
BBgBarc US Agg Float Adj TR USD	8.72	-0.08	3.63	2.75	0.44	5.85	-1.97	4.32	7.92	6.58	6.58
Count	394	375	354	330	307	299	291	269	252	240	223
25th Percentile	8.87	0.05	3.76	2.89	0.60	5.99	-1.64	6.24	7.39	7.86	14.40
50th Percentile	8.31	-0.41	3.26	2.46	0.26	5.55	-2.18	5.31	6.63	6.85	10.48
75th Percentile	7.52	-0.83	2.73	2.01	-0.18	4.76	-2.69	3.90	5.65	5.87	6.57

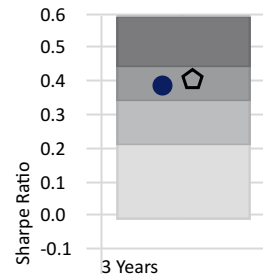
3 Yr Alpha

Peer Group (5-95%): US OE Intermediate Term Bond



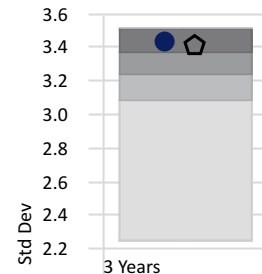
3 Yr Sharpe

Peer Group (5-95%): US OE Intermediate Term Bond



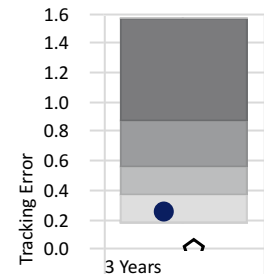
3 Yr Std Deviation

Peer Group (5-95%): US OE Intermediate Term Bond



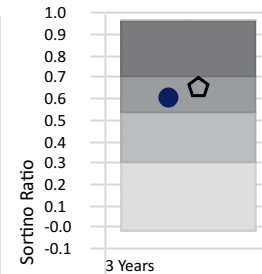
3 Yr Tracking Error

Peer Group (5-95%): US OE Intermediate Term Bond



3 Yr Sortino

Peer Group (5-95%): US OE Intermediate Term Bond



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Vanguard Total Bond Market Index Adm	3.45	0.39	-0.06	1.01	0.61	-0.22	41.67	0.27
BBgBarc US Agg Float Adj TR USD	3.41	0.41			0.65			

US OE Intermediate-Term Bond

Vanguard Total Bond Market Index Adm	3.45	0.39	-0.06	1.01	0.61	-0.22	41.67	0.27
BBgBarc US Agg Float Adj TR USD	3.41	0.41			0.65			

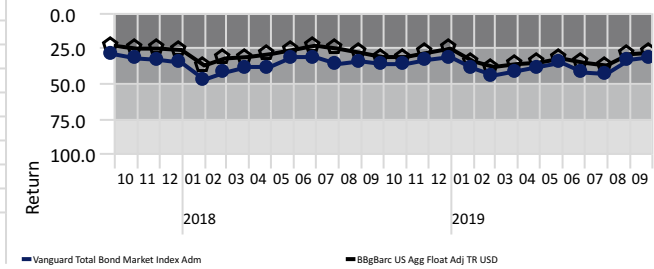
Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

Rolling Window: 3 Years 1 Month shift Calculation Benchmark: BBgBarc US Agg Float Adj TR USD

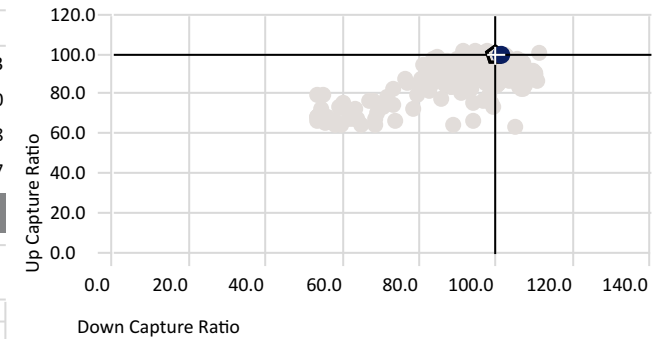
1st to 25th Percentile 26th to Median 51st to 75th Percentile 76th to 100th Percentile



Up/Down Market Capture Ratio

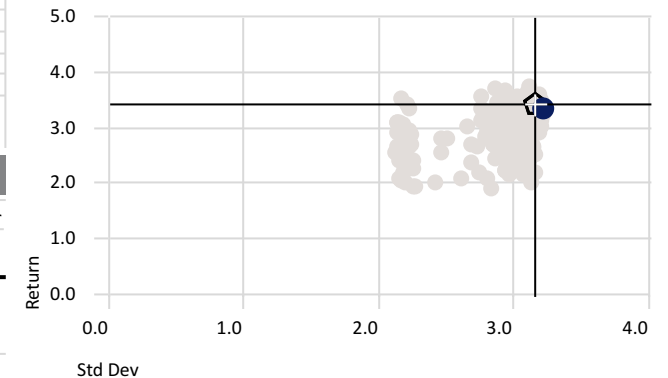
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: BBgBarc US Agg Float Adj TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



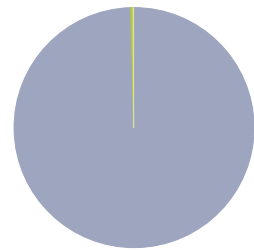
Vanguard Long-Term Bond Index Investor

VBLTX



Asset Allocation

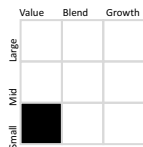
Portfolio Date: 8/31/2019



• Stock	0.0	%
• Bond	99.6	
• Cash	0.3	
• Other	0.1	
Total	100.0	

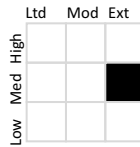
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	0.0	
Consumer Cyclical %	0.0	
Financial Services %	0.0	
Real Estate %	0.0	
Consumer Defensive %	0.0	
Healthcare %	100.0	
Utilities %	0.0	
Communication Services %	0.0	
Energy %	0.0	
Industrials %	0.0	
Technology %	0.0	

Credit Quality

Avg Eff Duration	15.8
Avg Eff Maturity	24.4
Avg Cred Qual	A
Cred Qual AAA%	45.5
Cred Qual AA%	6.0
Cred Qual A%	20.2
Credit Qual BBB %	28.22
Credit Qual BB %	0.00
Credit Qual B %	0.00
Credit Qual Below B %	0.00

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
United States Treasury Bonds 2.88%		216		1.67%
United States Treasury Bonds 3%		212		1.64%
United States Treasury Bonds 3.12%		195		1.50%
United States Treasury Bonds 3.38%		189		1.45%
United States Treasury Bonds 3%		184		1.41%
United States Treasury Bonds 3%		171		1.32%
United States Treasury Bonds 3.62%		168		1.30%
United States Treasury Bonds 3.38%		167		1.28%
United States Treasury Bonds 2.75%		165		1.27%
United States Treasury Bonds 2.88%		163		1.26%
Turnover Ratio %			38.00	
% Asset in Top 10 Holdings			14.10	

Key Information

Ticker	VBLTX
Morningstar Category	US Fund Long-Term Bond
Firm Name	Vanguard
Advisor	Vanguard Group Inc
Manager Name	Joshua C. Barrickman
Inception Date	3/1/1994
Fund Size (Mil)	12,667.52
Prospectus Net Expense Ratio	0.15
Firm Name	Vanguard
Web Address	www.vanguard.com

Key Information

Morningstar Rating Overall	★★★
Morningstar Rating 3 Yr	★★
Morningstar Return % Rank Cat 3 Yr	67
Morningstar Rating 5 Yr	★★★
Morningstar Return % Rank Cat 5 Yr	51
Morningstar Rating 10 Yr	★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	64

Key Statistics

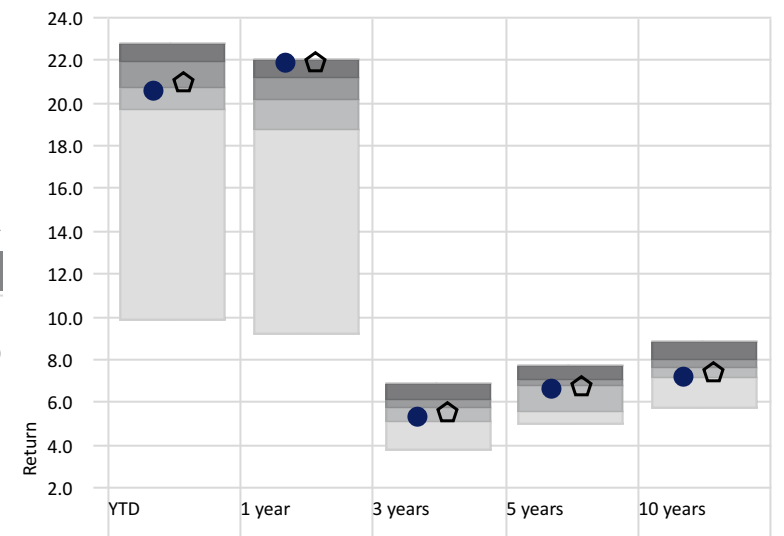
Arithmetic Mean 3 Yr (Mo-End)	0.47
Std Dev 3 Yr (Mo-End)	8.90
Alpha 3 Yr (Mo-End)	0.53
Sharpe Ratio 3 Yr (Mo-End)	0.45
Arithmetic Mean 5 Yr (Mo-End)	0.57
Std Dev 5 Yr (Mo-End)	8.73
Alpha 5 Yr (Mo-End)	-0.59
Sharpe Ratio 5 Yr (Mo-End)	0.67

Investment Strategy

The investment seeks to track the performance of the Bloomberg Barclays U.S. Long Government/Credit Float Adjusted Index. Bloomberg Barclays U.S. Long Government/Credit Float Adjusted Index includes all medium and larger issues of U.S. government, investment-grade corporate, and investment-grade international dollar-denominated bonds that have maturities of greater than 10 years and are publicly issued. All of its investments will be selected through the sampling process, and at least 80% of the fund's assets will be invested in bonds held in the index.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Long-Term Bond

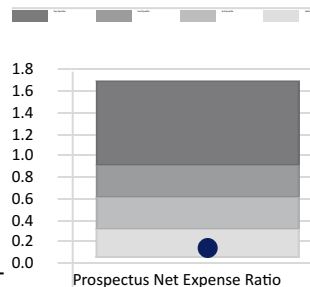


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Vanguard Long-Term Bond Index Investor	20.62	21.93	5.37	6.70	7.29
BBgBarc US L Govt/Credit Fl Adj TR USD	20.94	21.88	5.56	6.81	7.42
Median	20.72	20.14	5.80	6.76	7.59
5th Percentile	22.79	22.01	6.85	7.73	8.80
25th Percentile	21.88	21.15	6.15	7.11	8.00
50th Percentile	20.72	20.14	5.80	6.76	7.59
75th Percentile	19.68	18.78	5.10	5.54	7.19
95th Percentile	9.90	9.21	3.84	5.00	5.77

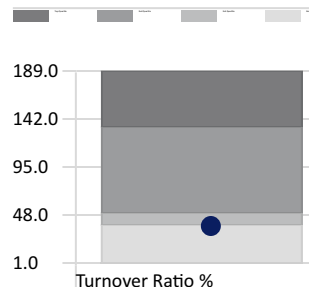
Expense vs Peer Group

Peer Group (5-95%): US OE Long-Term Bond



Turnover vs Peer Group

Peer Group (5-95%): US OE Long-Term Bond



Vanguard Long-Term Bond Index Investor

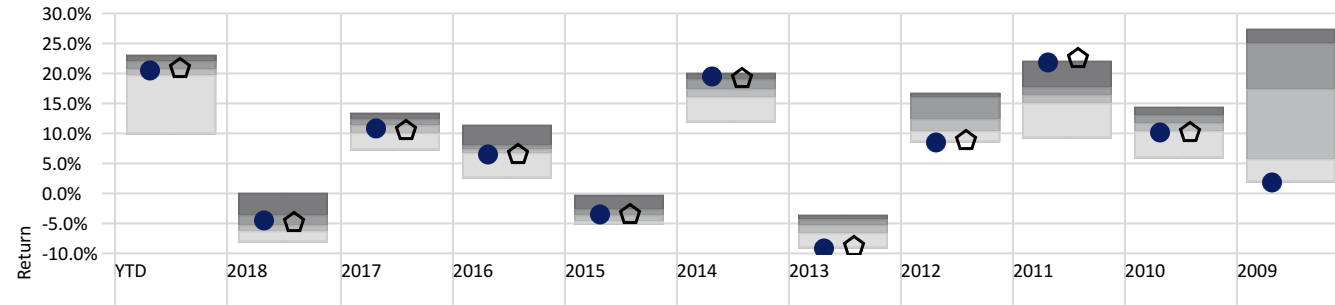
VB�TX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Long-Term Bond Calculation Benchmark: BBgBarc US L Govt/Credit FI Adj TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



● Vanguard Long-Term Bond Index Investor

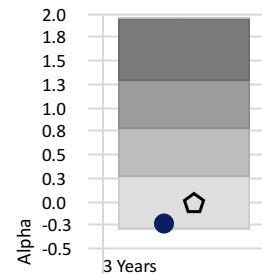
★ BBgBarc US L Govt/Credit FI Adj TR USD

As of Date: 9/30/2019 Calculation Benchmark: BBgBarc US L Govt/Credit FI Adj TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Vanguard Long-Term Bond Index Investor	20.62	-4.51	10.76	6.41	-3.47	19.72	-9.13	8.49	22.05	10.27	1.76
BBgBarc US L Govt/Credit FI Adj TR USD	20.94	-4.68	10.72	6.68	-3.31	19.31	-8.83	8.79	22.49	10.16	
Count	32	31	30	28	25	25	24	22	20	19	17
25th Percentile	21.88	-3.91	12.31	8.00	-2.74	18.90	-4.35	15.78	17.59	12.91	24.97
50th Percentile	20.72	-5.32	11.35	7.23	-3.64	17.39	-5.55	12.11	16.36	11.53	17.09
75th Percentile	19.68	-6.58	9.97	6.52	-4.63	15.88	-6.64	10.32	15.06	10.36	5.62

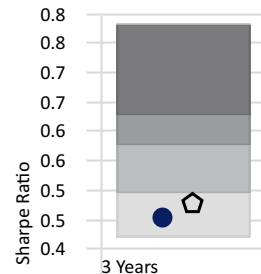
3 Yr Alpha

Peer Group (5-95%): US OE Long-Term Bond



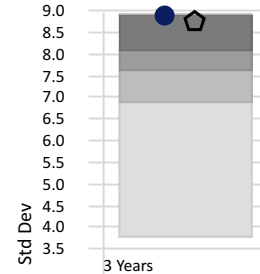
3 Yr Sharpe

Peer Group (5-95%): US OE Long-Term Bond



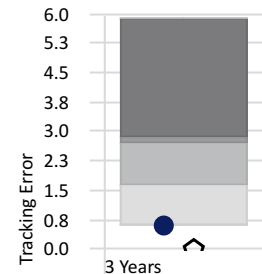
3 Yr Std Deviation

Peer Group (5-95%): US OE Long-Term Bond



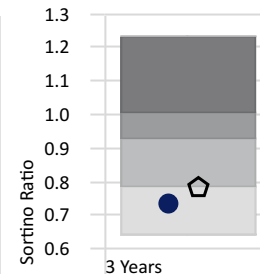
3 Yr Tracking Error

Peer Group (5-95%): US OE Long-Term Bond



3 Yr Sortino

Peer Group (5-95%): US OE Long-Term Bond



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Vanguard Long-Term Bond Index Investor	8.90	0.45	-0.22	1.01	0.74	-0.31	41.67	0.62
BBgBarc US L Govt/Credit FI Adj TR USD	8.77	0.48			0.78			

US OE Long-Term Bond

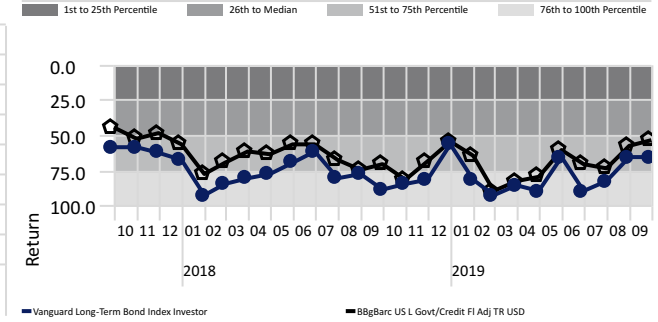
Vanguard Long-Term Bond Index Investor	8.90	0.45	-0.22	1.01	0.74	-0.31	41.67	0.62
BBgBarc US L Govt/Credit FI Adj TR USD	8.77	0.48			0.78			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

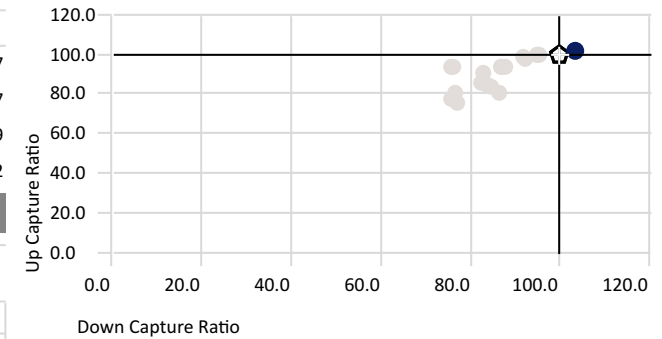
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: BBgBarc US L Govt/Credit FI Adj TR USD



Up/Down Market Capture Ratio

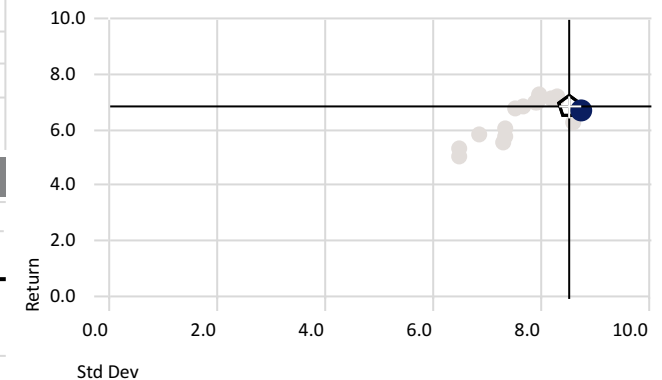
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: BBgBarc US L Govt/Credit FI Adj TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



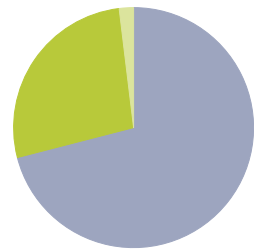
PIMCO Long Duration Total Return Instl

PLRIX



Asset Allocation

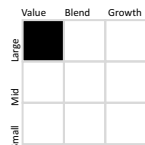
Portfolio Date: 6/30/2019



Stock	0.0
Bond	71.0
Cash	27.1
Other	1.9
Total	100.0

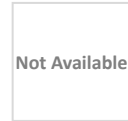
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	0.0	
Consumer Cyclical %	0.0	
Financial Services %	100.0	
Real Estate %	0.0	
Consumer Defensive %	0.0	
Healthcare %	0.0	
Utilities %	0.0	
Communication Services %	0.0	
Energy %	0.0	
Industrials %	0.0	
Technology %	0.0	

Credit Quality

Avg Eff Duration	15.0
Avg Eff Maturity	25.9
Avg Cred Qual	
Cred Qual AAA%	
Cred Qual AA%	
Cred Qual A%	
Credit Qual BBB %	
Credit Qual BB %	
Credit Qual B %	
Credit Qual Below B %	

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
US Ultra Bond (CBT) Sept19		2,051		54.98%
Irs Usd 2.60000 03/16/20-1y (Red) Cme		1,730		46.37%
Federal National Mortgage Association 4%		309		8.29%
Federal National Mortgage Association 4%		243		6.51%
Iro Usd 2y C 2.45000 M 05/11/20 Myc		160		4.29%
United States Treasury Notes 1.12%		138		3.69%
Federal National Mortgage Association 3.5%		115		3.09%
United States Treasury Notes 1.38%		113		3.03%
Irs Usd 2.74000 12/05/18-5y Cme		111		2.98%
Pimco Fds		110		2.96%
Turnover Ratio %				189.00
% Asset in Top 10 Holdings				-15.29

Key Information

Ticker	PLRIX
Morningstar Category	US Fund Long-Term Bond
Firm Name	PIMCO
Advisor	Pacific Investment Management Company, LLC
Manager Name	Multiple
Inception Date	8/31/2006
Fund Size (Mil)	3,395.75
Prospectus Net Expense Ratio	0.97
Firm Name	PIMCO
Web Address	www.pimco.com

Key Information

Morningstar Rating Overall	★★★★
Morningstar Rating 3 Yr	★★★★
Morningstar Return % Rank Cat 3 Yr	20
Morningstar Rating 5 Yr	★★★★★
Morningstar Return % Rank Cat 5 Yr	8
Morningstar Rating 10 Yr	★★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	32

Key Statistics

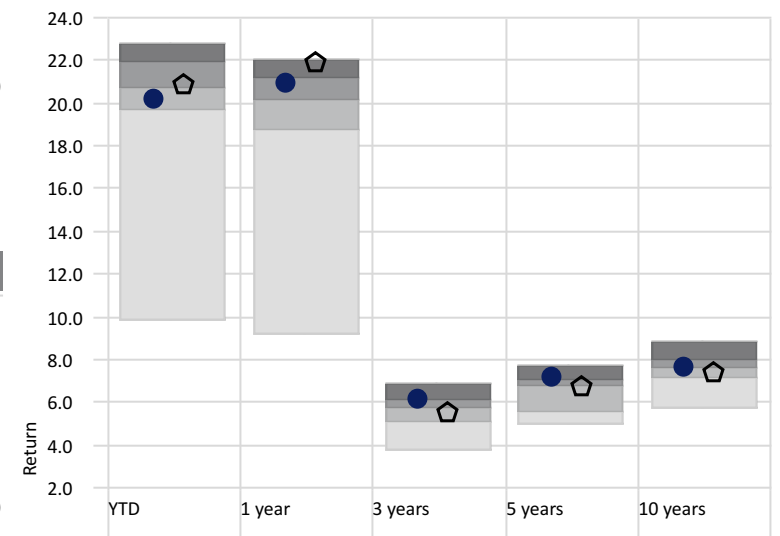
Arithmetic Mean 3 Yr (Mo-End)	0.53
Std Dev 3 Yr (Mo-End)	8.49
Alpha 3 Yr (Mo-End)	1.48
Sharpe Ratio 3 Yr (Mo-End)	0.57
Arithmetic Mean 5 Yr (Mo-End)	0.61
Std Dev 5 Yr (Mo-End)	8.30
Alpha 5 Yr (Mo-End)	0.20
Sharpe Ratio 5 Yr (Mo-End)	0.76

Investment Strategy

The investment seeks maximum total return, consistent with prudent investment management. The fund invests at least 65% of its total assets in a diversified portfolio of Fixed Income Instruments of varying maturities, which may be represented by forwards or derivatives such as options, futures contracts or swap agreements. "Fixed Income Instruments" include bonds, debt securities and other similar instruments issued by various U.S. and non-U.S. public- or private-sector entities. It may invest up to 30% of its total assets in securities denominated in foreign currencies, and may invest beyond this limit in U.S. dollar-denominated securities of foreign issuers.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Long-Term Bond

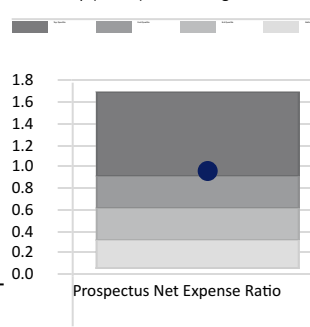


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
PIMCO Long Duration Total Return Instl	20.19	21.02	6.23	7.21	7.69
BBgBarc US Govt/Credit Long TR USD	20.93	21.88	5.56	6.81	7.42
Median	20.72	20.14	5.80	6.76	7.59
5th Percentile	22.79	22.01	6.85	7.73	8.80
25th Percentile	21.88	21.15	6.15	7.11	8.00
50th Percentile	20.72	20.14	5.80	6.76	7.59
75th Percentile	19.68	18.78	5.10	5.54	7.19
95th Percentile	9.90	9.21	3.84	5.00	5.77

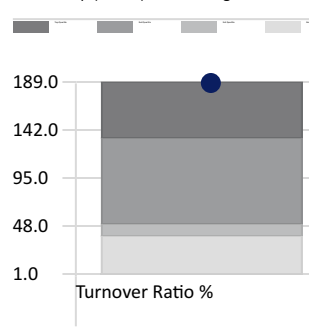
Expense vs Peer Group

Peer Group (5-95%): US OE Long-Term Bond



Turnover vs Peer Group

Peer Group (5-95%): US OE Long-Term Bond



PIMCO Long Duration Total Return Instl

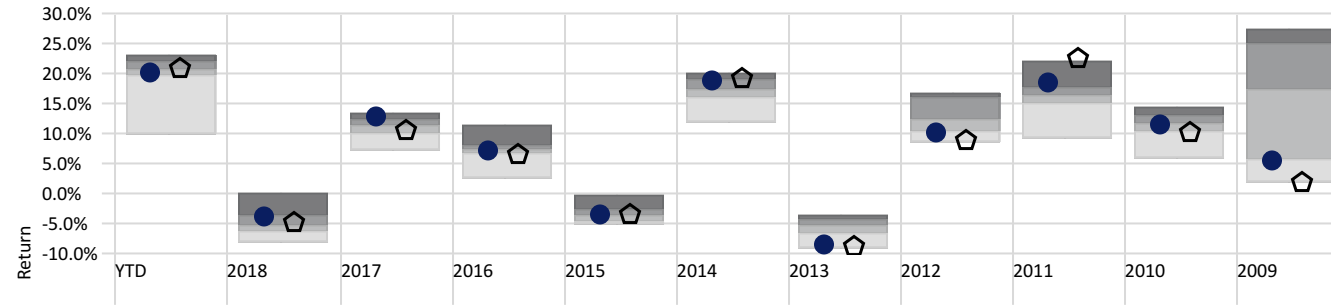
PLRIX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Long-Term Bond Calculation Benchmark: BBgBarc US Govt/Credit Long TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



PIMCO Long Duration Total Return Instl

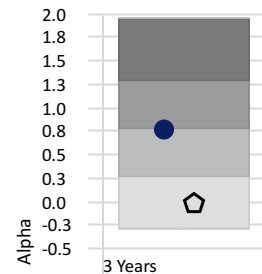
BBgBarc US Govt/Credit Long TR USD

As of Date: 9/30/2019 Calculation Benchmark: BBgBarc US Govt/Credit Long TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
PIMCO Long Duration Total Return Instl	20.19	-3.86	12.75	7.18	-3.44	19.02	-8.56	10.28	18.57	11.64	5.62
BBgBarc US Govt/Credit Long TR USD	20.93	-4.68	10.71	6.67	-3.30	19.31	-8.83	8.78	22.49	10.16	1.92
Count	32	31	30	28	25	25	24	22	20	19	17
25th Percentile	21.88	-3.91	12.31	8.00	-2.74	18.90	-4.35	15.78	17.59	12.91	24.97
50th Percentile	20.72	-5.32	11.35	7.23	-3.64	17.39	-5.55	12.11	16.36	11.53	17.09
75th Percentile	19.68	-6.58	9.97	6.52	-4.63	15.88	-6.64	10.32	15.06	10.36	5.62

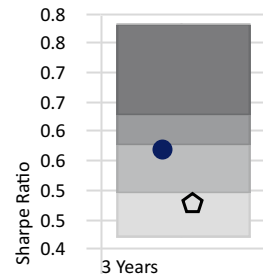
3 Yr Alpha

Peer Group (5-95%): US OE Long-Term Bond



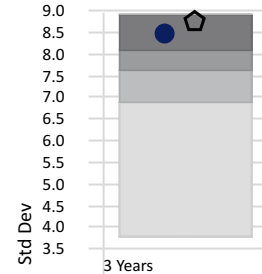
3 Yr Sharpe

Peer Group (5-95%): US OE Long-Term Bond



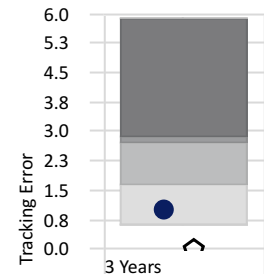
3 Yr Std Deviation

Peer Group (5-95%): US OE Long-Term Bond



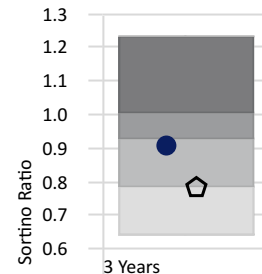
3 Yr Tracking Error

Peer Group (5-95%): US OE Long-Term Bond



3 Yr Sortino

Peer Group (5-95%): US OE Long-Term Bond



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
PIMCO Long Duration Total Return Instl	8.49	0.57	0.78	0.96	0.91	0.66	61.11	1.02
BBgBarc US Govt/Credit Long TR USD	8.77	0.48			0.78			

US OE Long-Term Bond

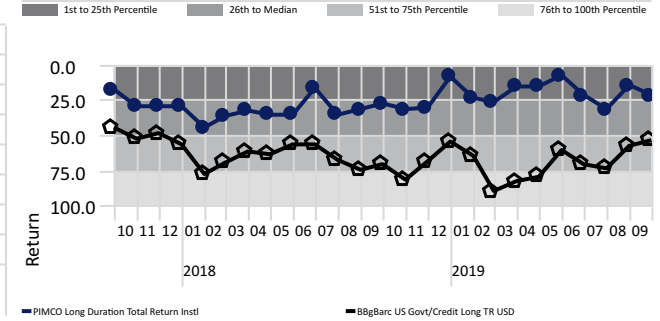
PIMCO Long Duration Total Return Instl	8.49	0.57	0.78	0.96	0.91	0.66	61.11	1.02
BBgBarc US Govt/Credit Long TR USD	8.77	0.48			0.78			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

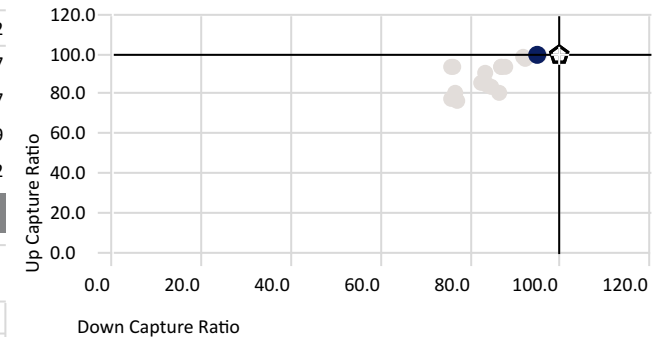
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: BBgBarc US Govt/Credit Long TR USD



Up/Down Market Capture Ratio

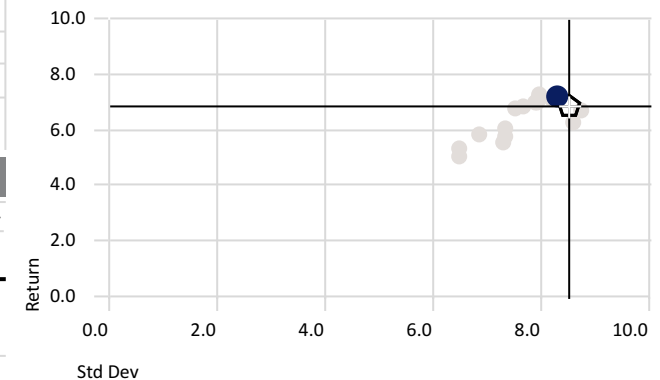
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: BBgBarc US Govt/Credit Long TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



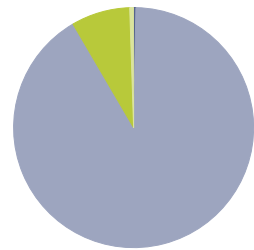
PGIM High Yield R6

PHYQX



Asset Allocation

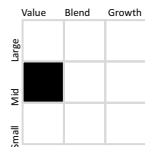
Portfolio Date: 8/31/2019



• Stock	0.3	%
• Bond	91.3	
• Cash	7.9	
• Other	0.5	
Total	100.0	

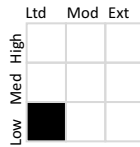
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv Bmk1
Basic Materials %	0.0
Consumer Cyclical %	0.2
Financial Services %	0.0
Real Estate %	0.0
Consumer Defensive %	0.0
Healthcare %	0.0
Utilities %	94.8
Communication Services %	0.0
Energy %	5.0
Industrials %	0.0
Technology %	0.0

Credit Quality

	Avg Eff Duration	3.5
	Avg Eff Maturity	B
	Avg Cred Qual	
	Cred Qual AAA%	
	Cred Qual AA%	
	Cred Qual A%	
	Credit Qual BBB %	
	Credit Qual BB %	
	Credit Qual B %	
	Credit Qual Below B %	

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
Pgim Core Ultra Short Bond Fund		710		7.38%
DISH DBS Corporation 7.75%		149		1.55%
Calpine Corporation 5.75%		112		1.17%
Financial & Risk US Holdings Inc 8.25%		92		0.95%
Wand Merger Corporation 9.12%		87		0.90%
Clear Channel Worldwide Holdings Inc. 9.25%		81		0.84%
Sprint Capital Corporation 8.75%		79		0.82%
Banff Merger Sub Inc 9.75%		76		0.79%
Bombardier Inc. 7.88%		76		0.79%
United Rentals (North America), Inc. 4.88%		74		0.77%
Turnover Ratio %				44.00
% Asset in Top 10 Holdings				9.32

Key Information

Ticker	PHYQX
Morningstar Category	US Fund High Yield Bond
Firm Name	PGIM Funds (Prudential)
Advisor	PGIM Investments LLC
Manager Name	Multiple
Inception Date	10/31/2011
Fund Size (Mil)	10,852.90
Prospectus Net Expense Ratio	0.42
Firm Name	PGIM Funds (Prudential)
Web Address	www.pgiminvestments.com

Key Information

Morningstar Rating Overall	★★★★★
Morningstar Rating 3 Yr	★★★★★
Morningstar Return % Rank Cat 3 Yr	3
Morningstar Rating 5 Yr	★★★★★
Morningstar Return % Rank Cat 5 Yr	2
Morningstar Rating 10 Yr	
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	

Key Statistics

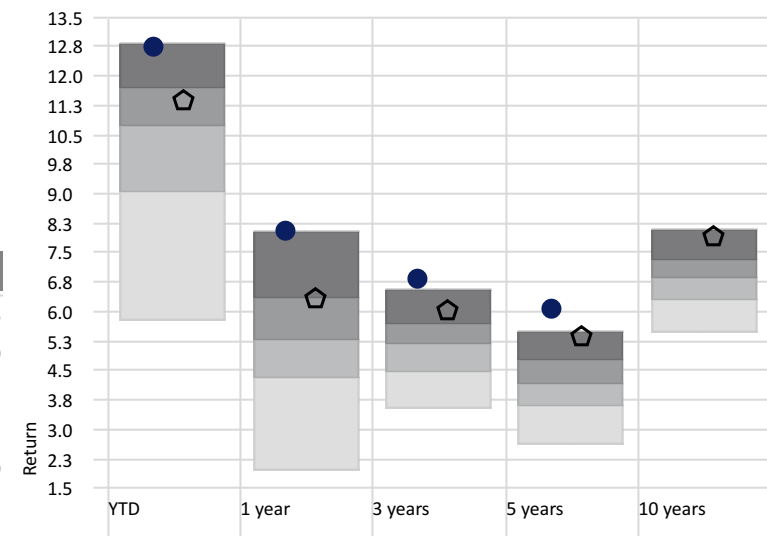
Arithmetic Mean 3 Yr (Mo-End)	0.56
Std Dev 3 Yr (Mo-End)	4.20
Alpha 3 Yr (Mo-End)	4.88
Sharpe Ratio 3 Yr (Mo-End)	1.22
Arithmetic Mean 5 Yr (Mo-End)	0.50
Std Dev 5 Yr (Mo-End)	5.02
Alpha 5 Yr (Mo-End)	4.61
Sharpe Ratio 5 Yr (Mo-End)	1.00

Investment Strategy

The investment seeks to maximize current income; and capital appreciation is a secondary objective. The fund normally invests at least 80% of its investable assets in a diversified portfolio of high yield fixed-income instruments rated Ba or lower by Moody's Investors Service (Moody's) or BB or lower by S&P Global Ratings (Standard & Poor's), and instruments either rated by another nationally recognized statistical rating organization (NRSRO), or considered to be of comparable quality, that is, junk bonds.

Performance Relative to Peer Group

Peer Group (5-95%): US OE High Yield Bond

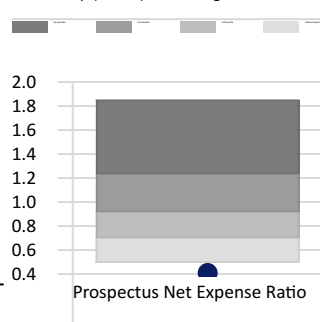


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
PGIM High Yield R6	12.78	8.11	6.85	6.09	
BBGBarc High Yield Corporate TR USD	11.41	6.36	6.07	5.37	7.94
Median	10.75	5.29	5.20	4.15	6.85
5th Percentile	12.85	8.01	6.54	5.49	8.07
25th Percentile	11.71	6.35	5.69	4.79	7.30
50th Percentile	10.75	5.29	5.20	4.15	6.85
75th Percentile	9.05	4.31	4.48	3.58	6.29
95th Percentile	5.77	1.99	3.55	2.62	5.50

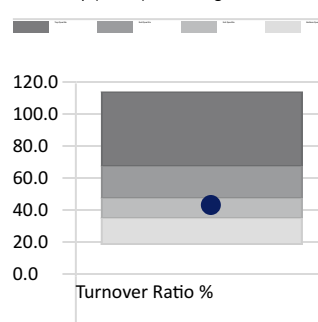
Expense vs Peer Group

Peer Group (5-95%): US OE High Yield Bond



Turnover vs Peer Group

Peer Group (5-95%): US OE High Yield Bond



PGIM High Yield R6

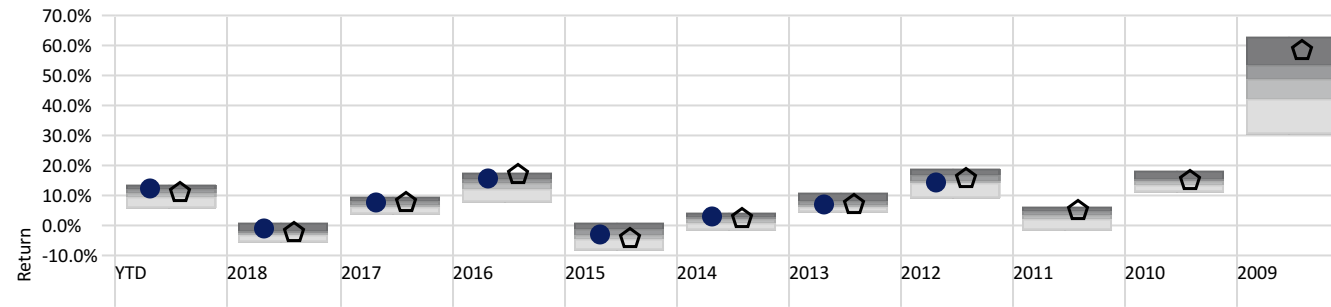
PHYQX



Performance Relative to Peer Group

Peer Group (5-95%): US OE High Yield Bond Calculation Benchmark: BBgBarc High Yield Corporate TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



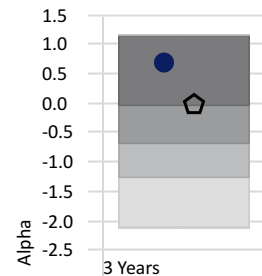
PGIM High Yield R6 BBgBarc High Yield Corporate TR USD

As of Date: 9/30/2019 Calculation Benchmark: BBgBarc High Yield Corporate TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
PGIM High Yield R6	12.78	-1.18	7.70	15.61	-2.68	2.95	7.15	14.45			
BBgBarc High Yield Corporate TR USD	11.41	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12	58.21
Count	677	651	594	573	528	485	447	393	361	340	319
25th Percentile	11.71	-2.01	7.52	15.33	-1.82	2.48	7.82	16.30	4.48	15.45	53.10
50th Percentile	10.75	-2.94	6.70	13.53	-3.75	1.62	6.55	14.64	3.34	14.27	48.42
75th Percentile	9.05	-3.84	5.92	11.74	-5.18	0.49	5.55	13.48	2.02	13.24	41.68

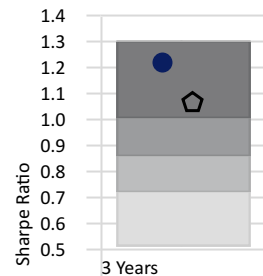
3 Yr Alpha

Peer Group (5-95%): US OE High Yield Bond



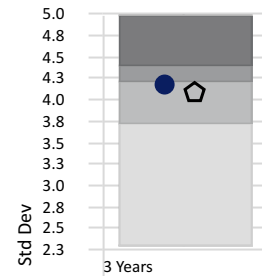
3 Yr Sharpe

Peer Group (5-95%): US OE High Yield Bond



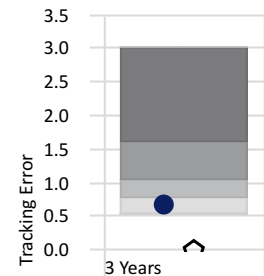
3 Yr Std Deviation

Peer Group (5-95%): US OE High Yield Bond



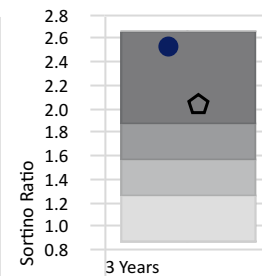
3 Yr Tracking Error

Peer Group (5-95%): US OE High Yield Bond



3 Yr Sortino

Peer Group (5-95%): US OE High Yield Bond



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years

US OE High Yield Bond

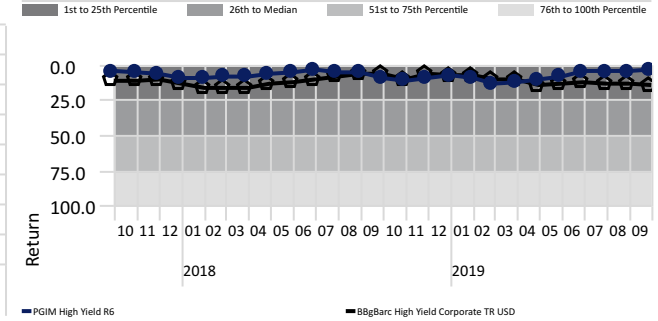
PGIM High Yield R6	4.20	1.22	0.70	1.01	2.55	1.12	61.11	0.70
BBgBarc High Yield Corporate TR USD	4.09	1.07			2.04			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

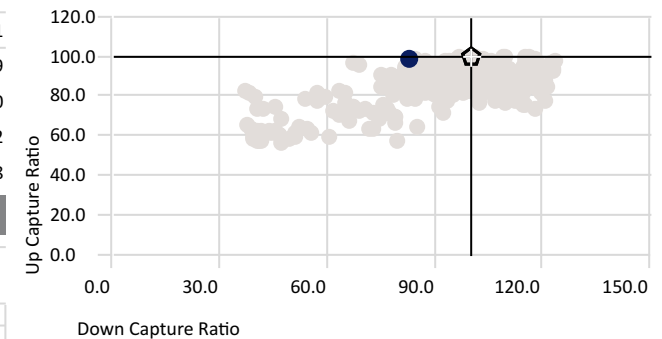
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: BBgBarc High Yield Corporate TR USD



Up/Down Market Capture Ratio

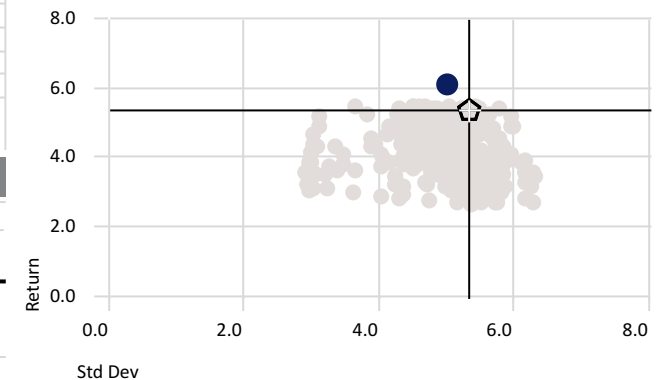
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: BBgBarc High Yield Corporate TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



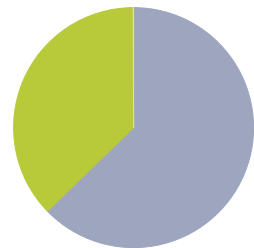
Columbia Strategic Income Inst3

CPHUX



Asset Allocation

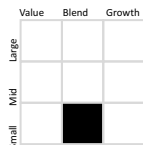
Portfolio Date: 6/30/2019



• Stock	0.0
• Bond	62.7
• Cash	37.2
• Other	0.1
Total	100.0

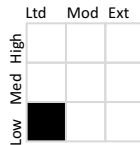
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv Bmk1
Basic Materials %	16.3
Consumer Cyclical %	83.4
Financial Services %	0.0
Real Estate %	0.0
Consumer Defensive %	0.0
Healthcare %	0.0
Utilities %	0.0
Communication Services %	0.3
Energy %	0.0
Industrials %	0.0
Technology %	0.0

Credit Quality

Avg Eff Duration	2.8
Avg Eff Maturity	8.2
Avg Cred Qual	BB
Cred Qual AAA%	9.6
Cred Qual AA%	7.7
Cred Qual A%	7.9
Credit Qual BBB %	23.73
Credit Qual BB %	14.10
Credit Qual B %	16.98
Credit Qual Below B %	2.38

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
10yr Rtr 2.500000 04-Mar-2020		505		9.40%
Federal National Mortgage Association 3.5%		245		4.57%
US 5 Year Note (CBT) Sept19		234		4.36%
Columbia Short-Term Cash		164		3.05%
Federal National Mortgage Association 4%		128		2.38%
Federal National Mortgage Association 5%		127		2.36%
Goldman Sachs Group, Inc. 4.22%		39		0.73%
Barings Clo Limited 4.18%		38		0.71%
Pnmac Gsmr Issuer Trust 5.25%		35		0.65%
Government National Mortgage Association 3%		33		0.61%
Turnover Ratio %			152.00	
% Asset in Top 10 Holdings			-48.71	

Key Information

Ticker	CPHUX
Morningstar Category	US Fund Nontraditional Bond
Firm Name	Columbia
Advisor	Columbia Mgmt Investment Advisers, LLC
Manager Name	Multiple
Inception Date	6/13/2013
Fund Size (Mil)	5,121.17
Prospectus Net Expense Ratio	0.61
Firm Name	Columbia
Web Address	www.columbiathreadneedleus.com

Key Information

Morningstar Rating Overall	★★★★★
Morningstar Rating 3 Yr	★★★★
Morningstar Return % Rank Cat 3 Yr	20
Morningstar Rating 5 Yr	★★★★★
Morningstar Return % Rank Cat 5 Yr	5
Morningstar Rating 10 Yr	
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	

Key Statistics

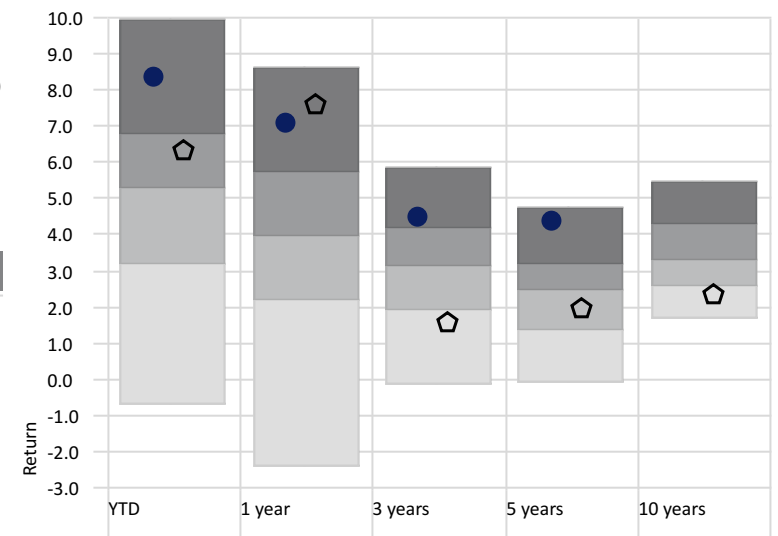
Arithmetic Mean 3 Yr (Mo-End)	0.37
Std Dev 3 Yr (Mo-End)	2.58
Alpha 3 Yr (Mo-End)	2.49
Sharpe Ratio 3 Yr (Mo-End)	1.12
Arithmetic Mean 5 Yr (Mo-End)	0.37
Std Dev 5 Yr (Mo-End)	3.29
Alpha 5 Yr (Mo-End)	2.92
Sharpe Ratio 5 Yr (Mo-End)	1.03

Investment Strategy

The investment seeks total return, consisting of current income and capital appreciation. Under normal circumstances, the fund has substantial exposure to fixed-income/debt markets. It may invest in U.S. government bonds and notes, U.S. and international bonds and notes, investment grade corporate (or similar) bonds and notes, mortgage- and other asset-backed securities, high yield (i.e., junk) instruments, floating rate loans and other floating rate debt securities, inflation-protected/linked securities, convertible securities, cash/cash equivalents, as well as foreign government, sovereign and quasi-sovereign debt investments.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Non Traditional Bond

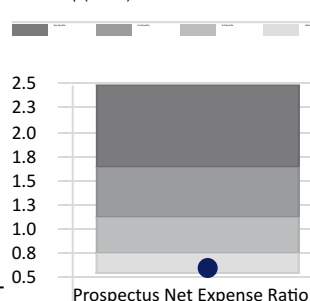


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Columbia Strategic Income Inst3	8.39	7.11	4.54	4.43	
BBGBarc Global Aggregate TR USD	6.32	7.60	1.59	1.99	2.34
Median	5.31	3.95	3.16	2.47	3.32
5th Percentile	9.94	8.61	5.86	4.76	5.44
25th Percentile	6.78	5.74	4.21	3.21	4.28
50th Percentile	5.31	3.95	3.16	2.47	3.32
75th Percentile	3.19	2.19	1.95	1.40	2.59
95th Percentile	-0.66	-2.39	-0.13	-0.03	1.68

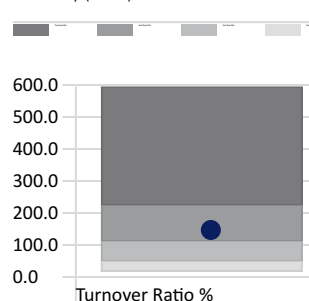
Expense vs Peer Group

Peer Group (5-95%): US OE Non Traditional Bond



Turnover vs Peer Group

Peer Group (5-95%): US OE Non Traditional Bond



Columbia Strategic Income Inst3

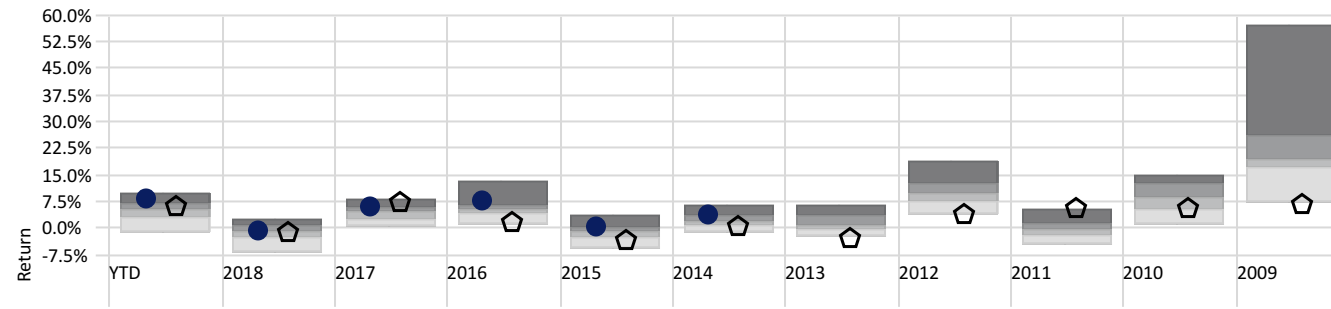
CPHUX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Non Traditional Bond Calculation Benchmark: BBgBarc Global Aggregate TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



● Columbia Strategic Income Inst3

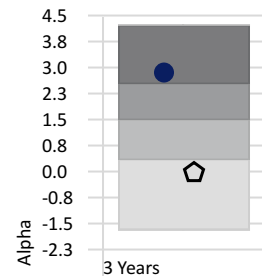
★ BBgBarc Global Aggregate TR USD

As of Date: 9/30/2019 Calculation Benchmark: BBgBarc Global Aggregate TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Columbia Strategic Income Inst3	8.39	-0.64	6.22	8.34	0.66	3.99					
BBgBarc Global Aggregate TR USD	6.32	-1.20	7.39	2.09	-3.15	0.59	-2.60	4.32	5.64	5.54	6.93
Count	302	282	268	253	225	176	141	123	97	76	67
25th Percentile	6.78	0.80	5.91	6.66	0.43	3.60	3.45	12.83	1.38	12.33	26.09
50th Percentile	5.31	-0.66	4.59	5.10	-0.97	2.00	0.95	9.67	-0.49	8.64	19.21
75th Percentile	3.19	-2.64	2.66	4.00	-2.60	1.00	-0.19	7.38	-2.21	5.17	16.94

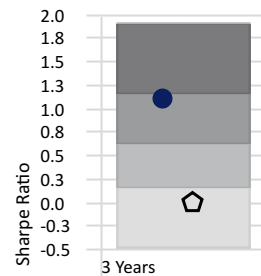
3 Yr Alpha

Peer Group (5-95%): US OE Non Traditional Bond



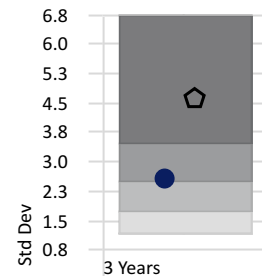
3 Yr Sharpe

Peer Group (5-95%): US OE Non Traditional Bond



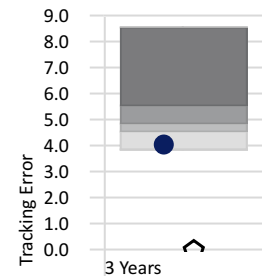
3 Yr Std Deviation

Peer Group (5-95%): US OE Non Traditional Bond



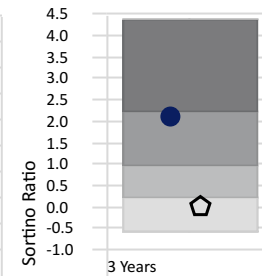
3 Yr Tracking Error

Peer Group (5-95%): US OE Non Traditional Bond



3 Yr Sortino

Peer Group (5-95%): US OE Non Traditional Bond



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years

US OE Nontraditional Bond

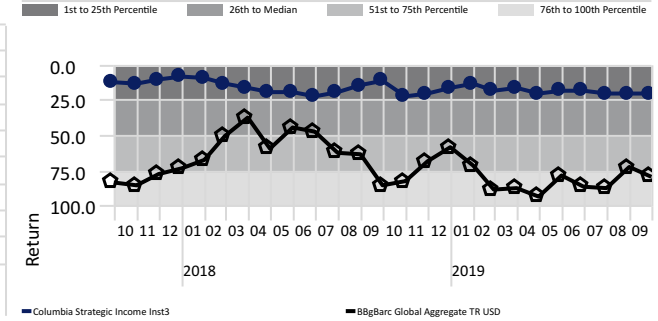
Columbia Strategic Income Inst3	2.58	1.12	2.86	0.26	2.15	0.72	50.00	4.10
BBgBarc Global Aggregate TR USD	4.67	0.02			0.02			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

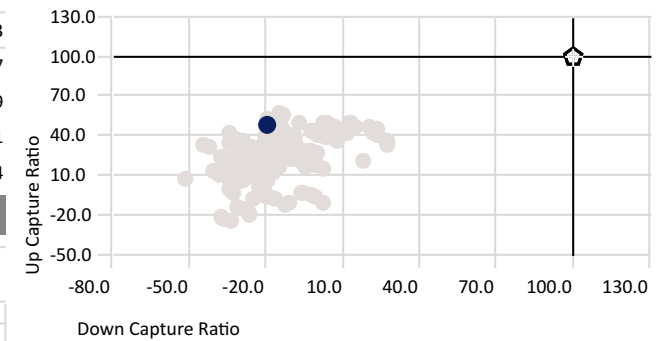
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: BBgBarc Global Aggregate TR USD



Up/Down Market Capture Ratio

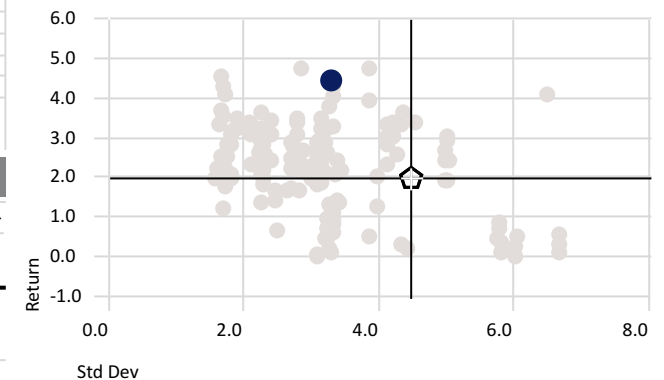
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: BBgBarc Global Aggregate TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



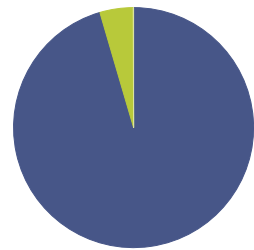
American Funds Washington Mutual R6

RWMGX



Asset Allocation

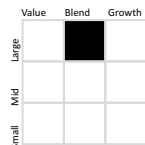
Portfolio Date: 6/30/2019



Stock	95.5	%
Bond	0.0	
Cash	4.5	
Other	0.0	
Total	100.0	

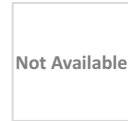
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	3.6	3.6
Consumer Cyclical %	7.0	6.7
Financial Services %	17.7	22.2
Real Estate %	1.2	5.4
Consumer Defensive %	6.3	8.3
Healthcare %	14.9	15.0
Utilities %	3.4	6.4
Communication Services %	4.6	5.5
Energy %	9.0	9.0
Industrials %	13.8	8.3
Technology %	18.5	9.5

Credit Quality

	Avg Eff Duration
	Avg Eff Maturity
	Avg Cred Qual
	Cred Qual AAA%
	Cred Qual AA%
	Cred Qual A%
	Credit Qual BBB %
	Credit Qual BB %
	Credit Qual B %
	Credit Qual Below B %

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
Microsoft Corp		6,929	0.80	5.87%
Capital Group Central Cash Fund		5,298		4.49%
Intel Corp		3,583	4.08	3.03%
Broadcom Inc		3,407	-0.38	2.89%
Boeing Co		3,197	2.71	2.71%
Comcast Corp Class A		3,026	1.79	2.56%
Merck & Co Inc		3,024	6.91	2.56%
The Home Depot Inc		2,897	7.93	2.45%
CME Group Inc Class A		2,676	2.71	2.27%
Northrop Grumman Corp		2,475	11.60	2.10%
Turnover Ratio %				25.00
% Asset in Top 10 Holdings				28.46

Key Information

Ticker	RWMGX
Morningstar Category	US Fund Large Blend
Firm Name	American Funds
Advisor	Capital Research and Management Company
Manager Name	Multiple
Inception Date	5/1/2009
Fund Size (Mil)	119,893.81
Prospectus Net Expense Ratio	0.27
Firm Name	American Funds
Web Address	www.americanfunds.com

Key Information

Morningstar Rating Overall	★★★★★
Morningstar Rating 3 Yr	★★★★
Morningstar Return % Rank Cat 3 Yr	23
Morningstar Rating 5 Yr	★★★★
Morningstar Return % Rank Cat 5 Yr	36
Morningstar Rating 10 Yr	★★★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	4

Key Statistics

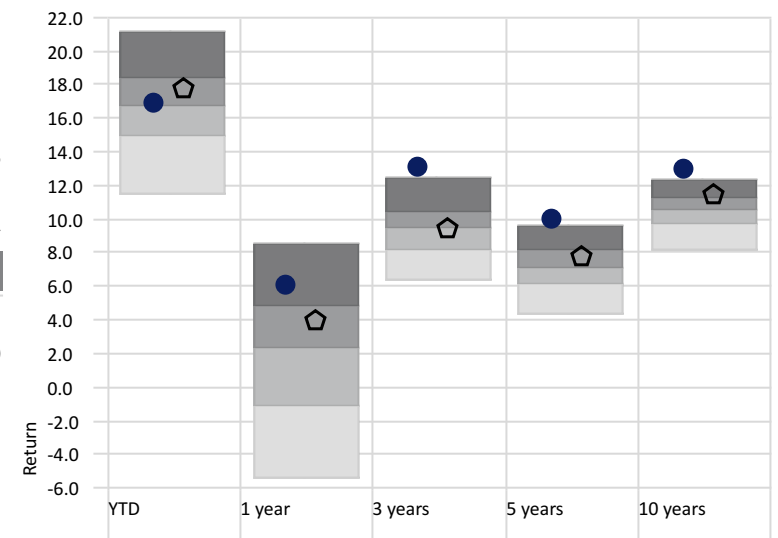
Arithmetic Mean 3 Yr (Mo-End)	1.08
Std Dev 3 Yr (Mo-End)	10.50
Alpha 3 Yr (Mo-End)	1.47
Sharpe Ratio 3 Yr (Mo-End)	1.08
Arithmetic Mean 5 Yr (Mo-End)	0.85
Std Dev 5 Yr (Mo-End)	10.67
Alpha 5 Yr (Mo-End)	0.41
Sharpe Ratio 5 Yr (Mo-End)	0.86

Investment Strategy

The investment seeks to produce income and to provide an opportunity for growth of principal consistent with sound common stock investing. The fund invests primarily in common stocks of established companies that are listed on, or meet the financial listing requirements of, the New York Stock Exchange and have a strong record of earnings and dividends. Its advisor strives to maintain a fully invested, diversified portfolio, consisting primarily of high-quality common stocks.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Large Value

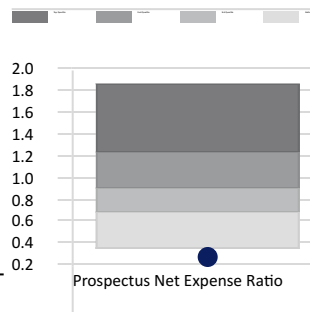


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
American Funds Washington Mutual R6	16.96	6.14	13.19	10.09	13.08
Russell 1000 Value TR USD	17.81	4.00	9.43	7.79	11.46
Median	16.73	2.30	9.44	7.10	10.51
5th Percentile	21.17	8.59	12.44	9.56	12.33
25th Percentile	18.40	4.90	10.49	8.19	11.27
50th Percentile	16.73	2.30	9.44	7.10	10.51
75th Percentile	14.89	-1.14	8.18	6.19	9.74
95th Percentile	11.48	-5.33	6.37	4.32	8.12

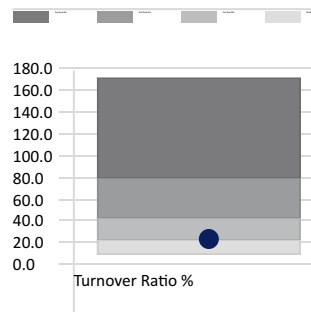
Expense vs Peer Group

Peer Group (5-95%): US OE Large Value



Turnover vs Peer Group

Peer Group (5-95%): US OE Large Value



American Funds Washington Mutual R6

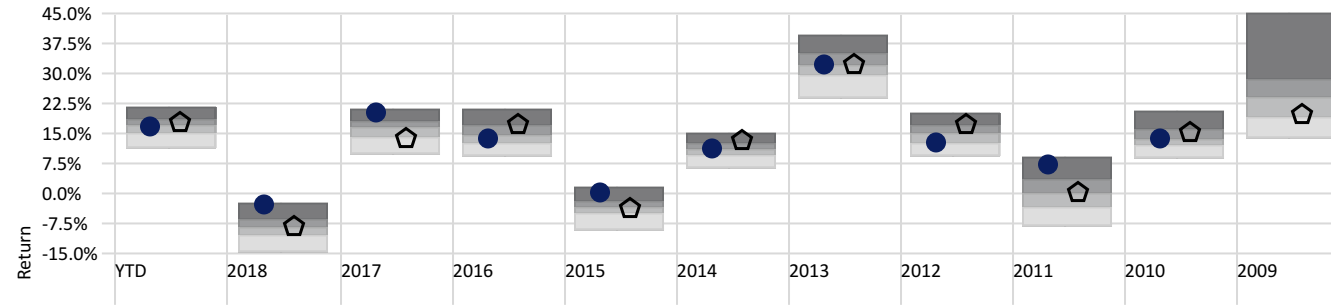
RWMGX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Large Value Calculation Benchmark: Russell 1000 Value TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



American Funds Washington Mutual R6

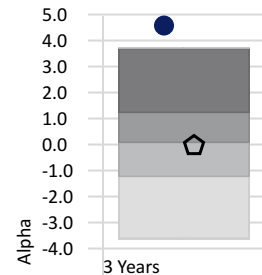
Russell 1000 Value TR USD

As of Date: 9/30/2019 Calculation Benchmark: Russell 1000 Value TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
American Funds Washington Mutual R6	16.96	-2.66	20.54	13.73	0.12	11.53	32.34	12.85	7.35	13.69	
Russell 1000 Value TR USD	17.81	-8.27	13.66	17.34	-3.83	13.45	32.53	17.51	0.39	15.51	19.69
Count	1,137	1,114	1,042	1,000	916	864	817	753	725	684	656
25th Percentile	18.40	-6.69	17.99	16.86	-1.91	12.42	34.70	16.95	3.27	15.77	28.42
50th Percentile	16.73	-8.89	16.15	14.25	-3.53	11.01	31.65	14.92	-0.40	13.55	23.94
75th Percentile	14.89	-10.66	13.96	12.40	-5.13	9.35	29.29	12.56	-3.47	11.97	18.95

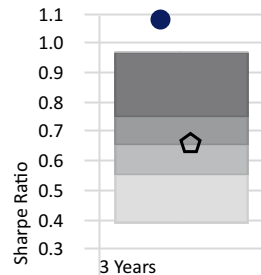
3 Yr Alpha

Peer Group (5-95%): US OE Large Value



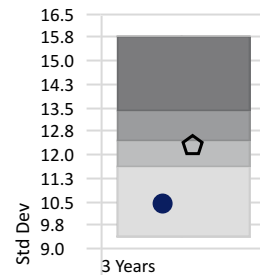
3 Yr Sharpe

Peer Group (5-95%): US OE Large Value



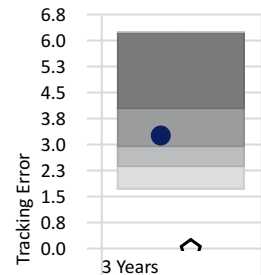
3 Yr Std Deviation

Peer Group (5-95%): US OE Large Value



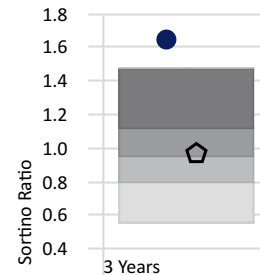
3 Yr Tracking Error

Peer Group (5-95%): US OE Large Value



3 Yr Sortino

Peer Group (5-95%): US OE Large Value



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
American Funds Washington Mutual R6	10.50	1.08	4.61	0.83	1.66	1.14	66.67	3.29
Russell 1000 Value TR USD	12.34	0.66			0.97			

US OE Large Value

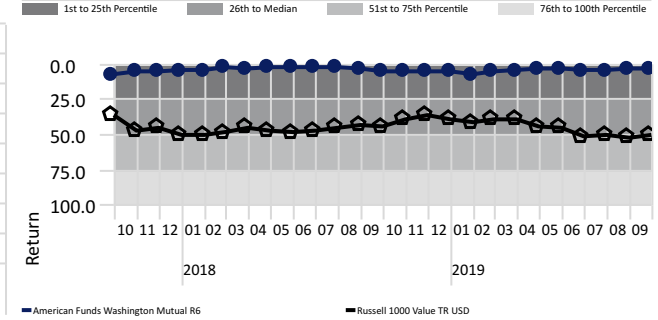
American Funds Washington Mutual R6	10.50	1.08	4.61	0.83	1.66	1.14	66.67	3.29
Russell 1000 Value TR USD	12.34	0.66			0.97			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

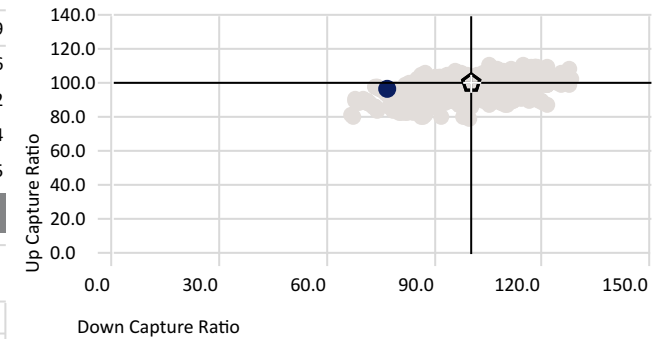
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: Russell 1000 Value TR USD



Up/Down Market Capture Ratio

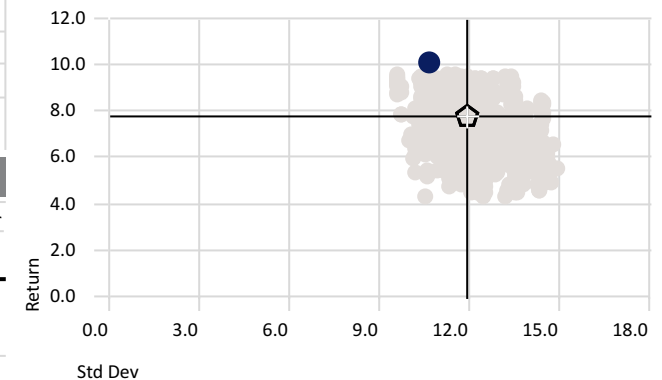
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: Russell 1000 Value TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



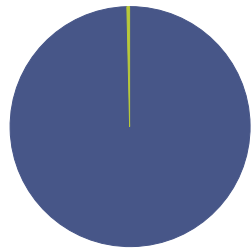
Vanguard Growth Index Institutional

VIGIX



Asset Allocation

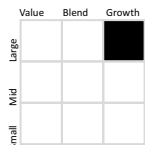
Portfolio Date: 8/31/2019



Stock	99.6
Bond	0.0
Cash	0.4
Other	0.0
Total	100.0

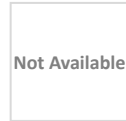
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	2.3	2.3
Consumer Cyclical %	18.2	18.2
Financial Services %	9.0	9.0
Real Estate %	4.4	4.4
Consumer Defensive %	4.0	4.0
Healthcare %	9.3	9.3
Utilities %	0.0	0.0
Communication Services %	3.1	3.1
Energy %	1.5	1.5
Industrials %	9.6	9.6
Technology %	38.6	38.6

Credit Quality

	Avg Eff Duration
	Avg Eff Maturity
	Avg Cred Qual
	Cred Qual AAA%
	Cred Qual AA%
	Cred Qual A%
	Credit Qual BBB %
	Credit Qual BB %
	Credit Qual B %
	Credit Qual Below B %

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
Microsoft Corp		7,549	0.80	8.20%
Apple Inc		6,177	16.40	6.71%
Amazon.com Inc		5,312	-13.65	5.77%
Facebook Inc A		3,188	-10.54	3.46%
Alphabet Inc A		2,545	6.32	2.77%
Alphabet Inc Class C		2,516	6.31	2.73%
Visa Inc Class A		2,247	-1.51	2.44%
Mastercard Inc A		1,828	-1.01	1.99%
The Home Depot Inc		1,792	7.93	1.95%
Comcast Corp Class A		1,433	1.79	1.56%
Turnover Ratio %				11.00
% Asset in Top 10 Holdings				37.59

Key Information

Ticker	VIGIX
Morningstar Category	US Fund Large Growth
Firm Name	Vanguard
Advisor	Vanguard Group Inc
Manager Name	Multiple
Inception Date	5/14/1998
Fund Size (Mil)	92,059.63
Prospectus Net Expense Ratio	0.04
Firm Name	Vanguard
Web Address	www.vanguard.com

Key Information

Morningstar Rating Overall	★★★★
Morningstar Rating 3 Yr	★★★
Morningstar Return % Rank Cat 3 Yr	40
Morningstar Rating 5 Yr	★★★
Morningstar Return % Rank Cat 5 Yr	36
Morningstar Rating 10 Yr	★★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	19

Key Statistics

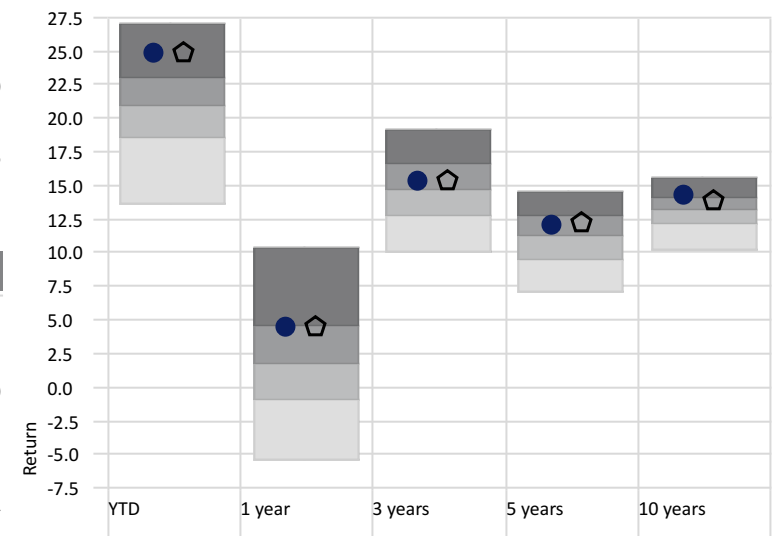
Arithmetic Mean 3 Yr (Mo-End)	1.27
Std Dev 3 Yr (Mo-End)	13.28
Alpha 3 Yr (Mo-End)	1.40
Sharpe Ratio 3 Yr (Mo-End)	1.03
Arithmetic Mean 5 Yr (Mo-End)	1.03
Std Dev 5 Yr (Mo-End)	13.04
Alpha 5 Yr (Mo-End)	0.81
Sharpe Ratio 5 Yr (Mo-End)	0.87

Investment Strategy

The investment seeks to track the performance of a benchmark index that measures the investment return of the CRSP US Large Cap Growth Index. The fund employs an indexing investment approach designed to track the performance of index, a broadly diversified index predominantly made up of growth stocks of large U.S. companies. The advisor attempts to replicate the target index by investing all, or substantially all, of its assets in the stocks that make up the index, holding each stock in approximately the same proportion as its weighting in the index. The fund is non-diversified.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Large Growth

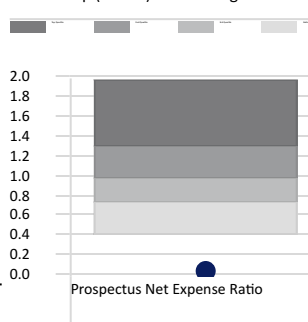


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Vanguard Growth Index Institutional	24.89	4.52	15.39	12.20	14.40
CRSP US Large Cap Growth TR USD	24.94	4.55	15.42	12.24	13.87
Median	20.87	1.80	14.69	11.23	13.20
5th Percentile	27.00	10.33	19.08	14.58	15.58
25th Percentile	23.06	4.59	16.55	12.77	14.13
50th Percentile	20.87	1.80	14.69	11.23	13.20
75th Percentile	18.60	-0.95	12.75	9.50	12.12
95th Percentile	13.63	-5.33	10.12	7.03	10.15

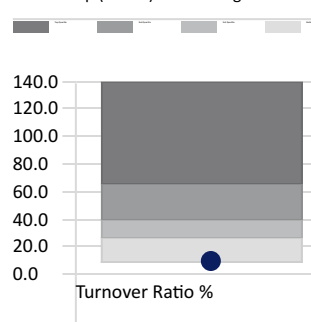
Expense vs Peer Group

Peer Group (5-95%): US OE Large Growth



Turnover vs Peer Group

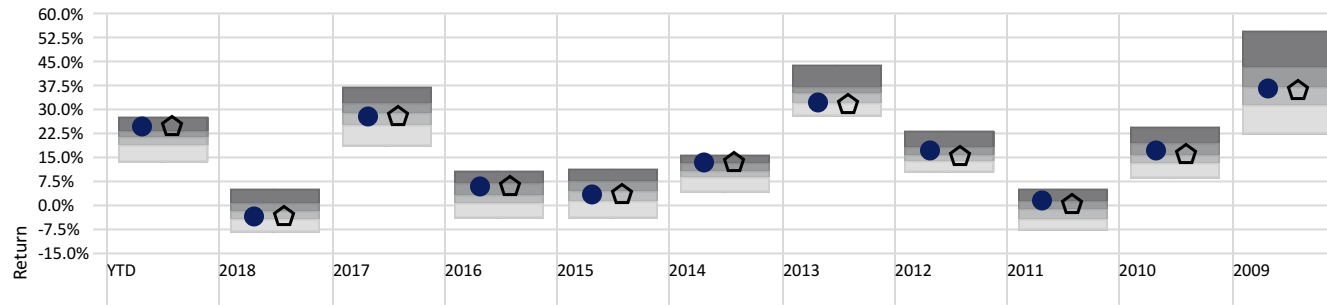
Peer Group (5-95%): US OE Large Growth



Performance Relative to Peer Group

Peer Group (5-95%): US OE Large Growth Calculation Benchmark: CRSP US Large Cap Growth TR USD

■ Top Quartile ■ 2nd Quartile ■ 3rd Quartile ■ Bottom Quartile



● Vanguard Growth Index Institutional

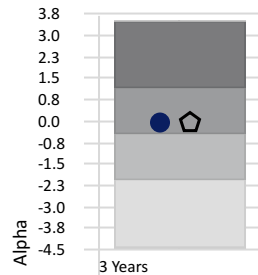
★ CRSP US Large Cap Growth TR USD

As of Date: 9/30/2019 Calculation Benchmark: CRSP US Large Cap Growth TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Vanguard Growth Index Institutional	24.89	-3.33	27.81	6.13	3.33	13.62	32.41	17.04	1.89	17.17	36.50
CRSP US Large Cap Growth TR USD	24.94	-3.34	27.86	6.16	3.38	13.69	31.75	15.20	0.58	15.77	35.92
Count	1,346	1,307	1,226	1,184	1,101	1,051	996	920	865	827	772
25th Percentile	23.06	0.48	31.84	6.62	7.00	12.78	37.00	18.10	1.28	19.11	43.24
50th Percentile	20.87	-2.07	28.30	3.15	4.06	10.54	34.58	15.72	-1.17	15.47	36.47
75th Percentile	18.60	-4.63	24.53	0.66	1.18	8.32	31.87	13.59	-4.42	12.86	31.02

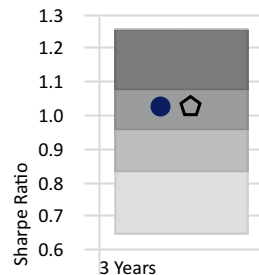
3 Yr Alpha

Peer Group (5-95%): US OE Large Growth



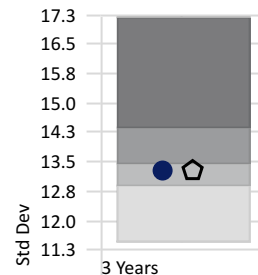
3 Yr Sharpe

Peer Group (5-95%): US OE Large Growth



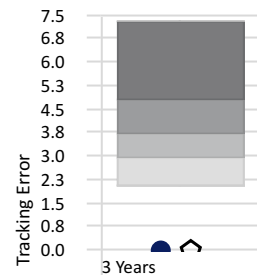
3 Yr Std Deviation

Peer Group (5-95%): US OE Large Growth



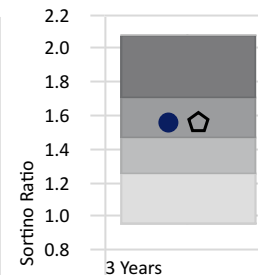
3 Yr Tracking Error

Peer Group (5-95%): US OE Large Growth



3 Yr Sortino

Peer Group (5-95%): US OE Large Growth



Performance Reporting

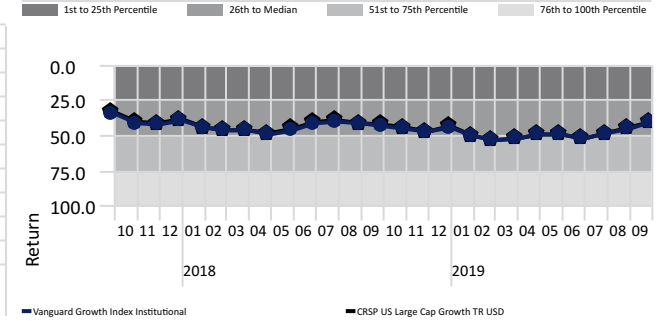
	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Vanguard Growth Index Institutional	13.28	1.03	-0.02	1.00	1.56	-0.98	36.11	0.02
CRSP US Large Cap Growth TR USD	13.28	1.03			1.56			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

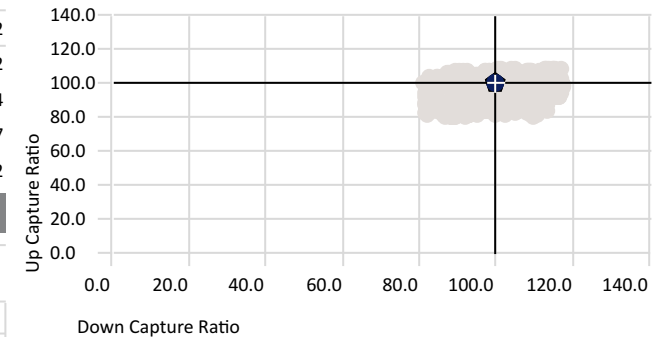
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: CRSP US Large Cap Growth TR USD



Up/Down Market Capture Ratio

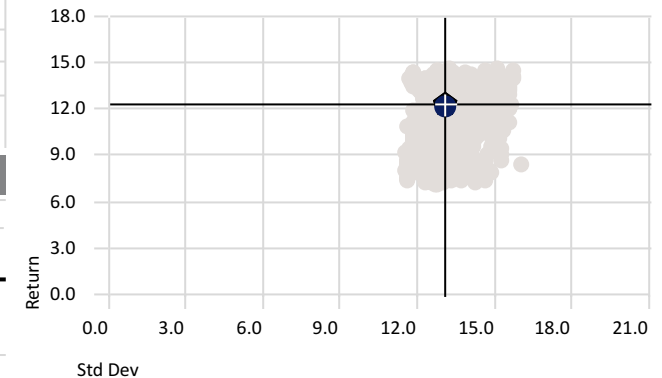
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: CRSP US Large Cap Growth TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



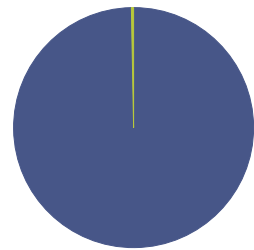
Vanguard Mid-Cap Value Index Admiral

VMVAX



Asset Allocation

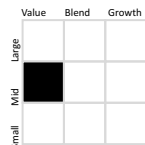
Portfolio Date: 8/31/2019



• Stock	99.7	%
• Bond	0.0	
• Cash	0.3	
• Other	0.0	
Total	100.0	

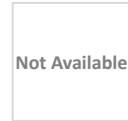
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	5.6	5.6
Consumer Cyclical %	19.2	19.2
Financial Services %	19.4	19.4
Real Estate %	6.9	6.9
Consumer Defensive %	4.9	4.9
Healthcare %	6.6	6.6
Utilities %	14.2	14.2
Communication Services %	2.1	2.0
Energy %	3.0	3.0
Industrials %	7.1	7.1
Technology %	11.0	11.0

Credit Quality

	Avg Eff Duration
	Avg Eff Maturity
	Avg Cred Qual
	Cred Qual AAA%
	Cred Qual AA%
	Cred Qual A%
	Credit Qual BBB %
	Credit Qual BB %
	Credit Qual B %
	Credit Qual Below B %

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
Newmont Goldcorp Corp	■	303	-3.25	1.61%
WEC Energy Group Inc	■	280	9.17	1.49%
Motorola Solutions Inc	■	276	-2.54	1.47%
Ball Corp	■	249	4.39	1.33%
Eversource Energy	■	238	10.00	1.27%
Willis Towers Watson PLC	■	237	-4.14	1.26%
FirstEnergy Corp	■	226	10.09	1.21%
DTE Energy Co	■	220	-1.03	1.17%
American Water Works Co Inc	■	213	4.80	1.13%
Entergy Corp	■	198	13.14	1.06%
Turnover Ratio %				17.00
% Asset in Top 10 Holdings				13.01

Key Information

Ticker	VMVAX
Morningstar Category	US Fund Mid-Cap Value
Firm Name	Vanguard
Advisor	Vanguard Group Inc
Manager Name	Multiple
Inception Date	9/27/2011
Fund Size (Mil)	19,610.09
Prospectus Net Expense Ratio	0.07
Firm Name	Vanguard
Web Address	www.vanguard.com

Key Information

Morningstar Rating Overall	★★★★
Morningstar Rating 3 Yr	★★★★
Morningstar Return % Rank Cat 3 Yr	20
Morningstar Rating 5 Yr	★★★★
Morningstar Return % Rank Cat 5 Yr	16
Morningstar Rating 10 Yr	
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	

Key Statistics

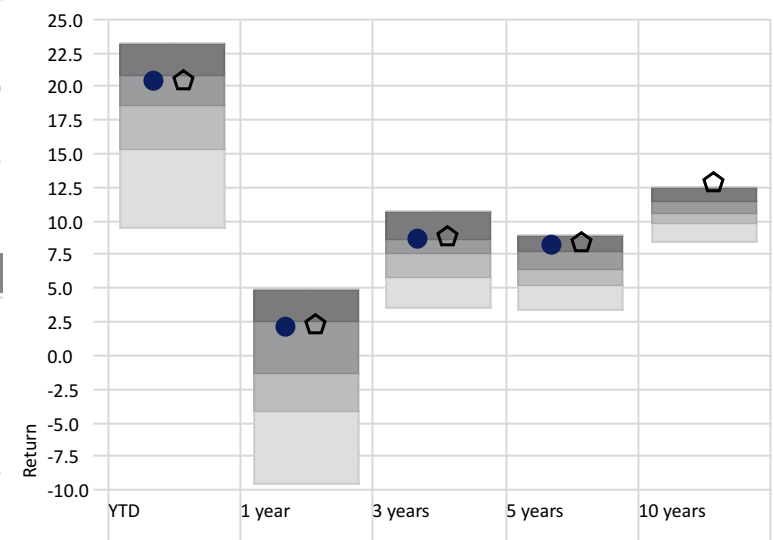
Arithmetic Mean 3 Yr (Mo-End)	0.79
Std Dev 3 Yr (Mo-End)	13.75
Alpha 3 Yr (Mo-End)	-4.78
Sharpe Ratio 3 Yr (Mo-End)	0.57
Arithmetic Mean 5 Yr (Mo-End)	0.74
Std Dev 5 Yr (Mo-End)	12.88
Alpha 5 Yr (Mo-End)	-2.39
Sharpe Ratio 5 Yr (Mo-End)	0.61

Investment Strategy

The investment seeks to track the performance of the CRSP US Mid Cap Value Index that measures the investment return of mid-capitalization value stocks. The fund employs an indexing investment approach designed to track the performance of the CRSP US Mid Cap Value Index, a broadly diversified index of value stocks of mid-size U.S. companies. The advisor attempts to replicate the target index by investing all, or substantially all, of its assets in the stocks that make up the index, holding each stock in approximately the same proportion as its weighting in the index.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Mid Cap Value

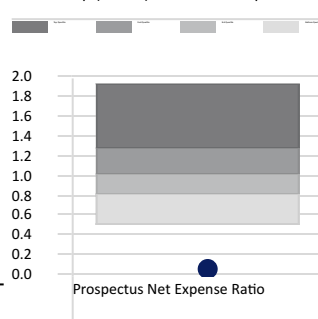


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Vanguard Mid-Cap Value Index Admiral	20.43	2.30	8.83	8.37	
CRSP US Mid Cap Value TR USD	20.49	2.34	8.87	8.41	12.97
Median	18.62	-1.35	7.57	6.43	10.57
5th Percentile	23.13	4.88	10.65	8.96	12.53
25th Percentile	20.83	2.46	8.62	7.78	11.38
50th Percentile	18.62	-1.35	7.57	6.43	10.57
75th Percentile	15.28	-4.24	5.77	5.17	9.78
95th Percentile	9.53	-9.53	3.57	3.39	8.51

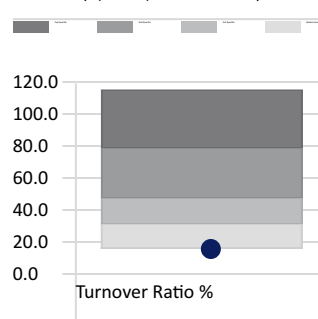
Expense vs Peer Group

Peer Group (5-95%): US OE Mid Cap Value



Turnover vs Peer Group

Peer Group (5-95%): US OE Mid Cap Value



Vanguard Mid-Cap Value Index Admiral

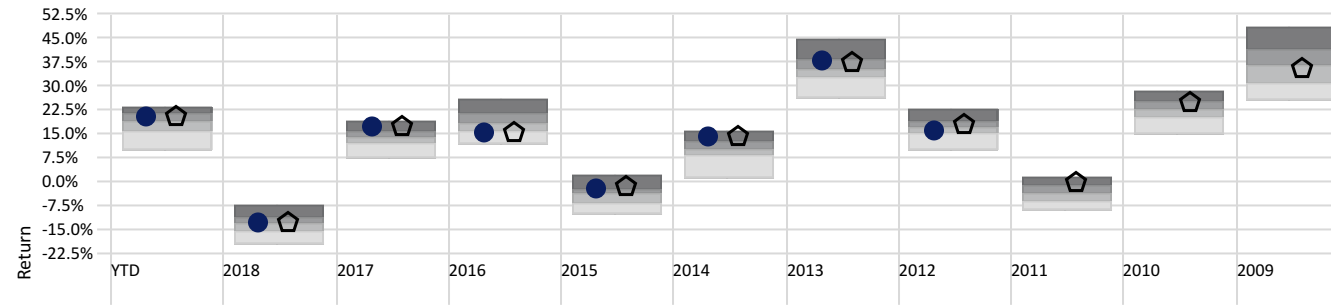
VMVAX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Mid Cap Value Calculation Benchmark: CRSP US Mid Cap Value TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



● Vanguard Mid-Cap Value Index Admiral

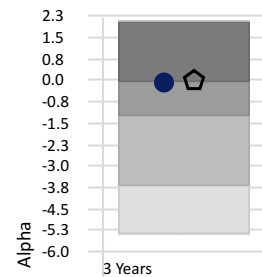
★ CRSP US Mid Cap Value TR USD

As of Date: 9/30/2019 Calculation Benchmark: CRSP US Mid Cap Value TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Vanguard Mid-Cap Value Index Admiral	20.43	-12.42	17.04	15.26	-1.80	13.98	37.66	16.02			
CRSP US Mid Cap Value TR USD	20.49	-12.42	17.12	15.28	-1.75	14.05	37.38	17.90	-0.39	24.58	35.21
Count	389	381	350	335	316	289	275	261	236	217	202
25th Percentile	20.83	-11.68	15.31	21.21	-2.48	12.32	37.64	18.50	-1.65	25.06	41.23
50th Percentile	18.62	-13.60	13.26	17.96	-4.15	9.64	34.88	16.44	-4.04	22.03	36.14
75th Percentile	15.28	-15.77	11.55	15.16	-6.87	7.64	32.13	14.84	-6.49	20.05	30.31

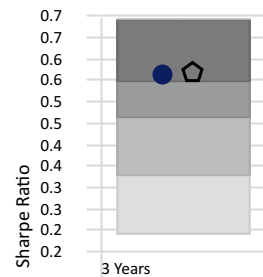
3 Yr Alpha

Peer Group (5-95%): US OE Mid Cap Value



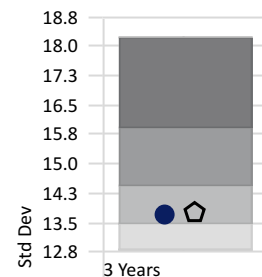
3 Yr Sharpe

Peer Group (5-95%): US OE Mid Cap Value



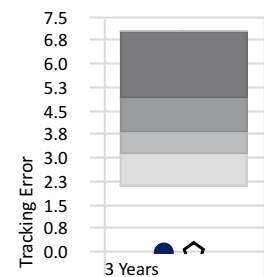
3 Yr Std Deviation

Peer Group (5-95%): US OE Mid Cap Value



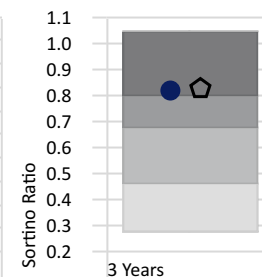
3 Yr Tracking Error

Peer Group (5-95%): US OE Mid Cap Value



3 Yr Sortino

Peer Group (5-95%): US OE Mid Cap Value



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Vanguard Mid-Cap Value Index Admiral	13.75	0.57	-0.03	1.00	0.83	-1.13	41.67	0.04
CRSP US Mid Cap Value TR USD	13.76	0.57			0.83			

US OE Mid-Cap Value

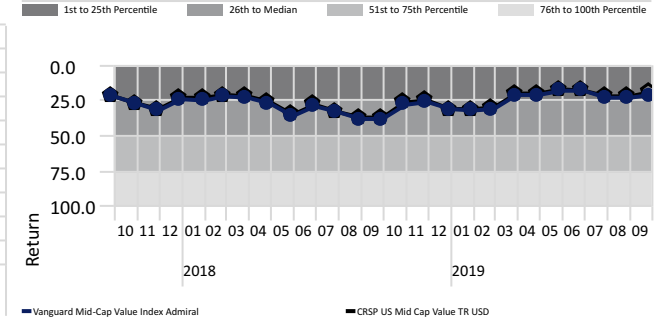
Vanguard Mid-Cap Value Index Admiral	13.75	0.57	-0.03	1.00	0.83	-1.13	41.67	0.04
CRSP US Mid Cap Value TR USD	13.76	0.57			0.83			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

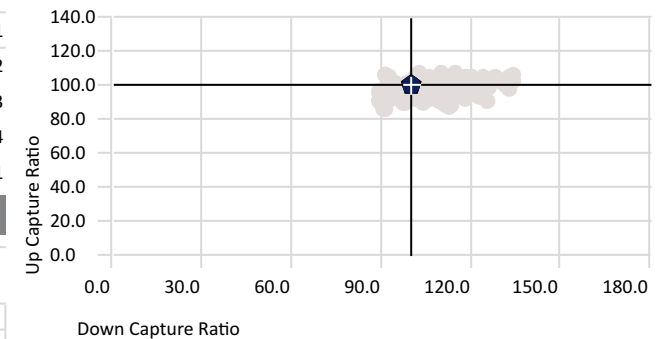
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: CRSP US Mid Cap Value TR USD



Up/Down Market Capture Ratio

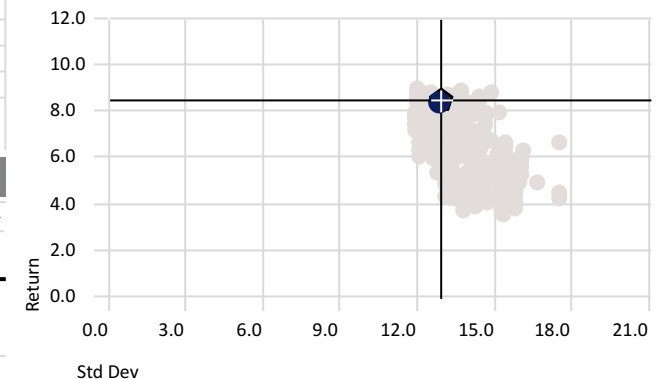
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: CRSP US Mid Cap Value TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



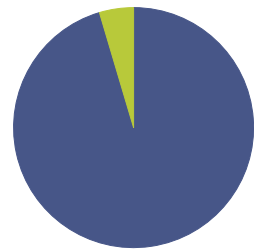
Janus Henderson Small Cap Value I

JSCOX



Asset Allocation

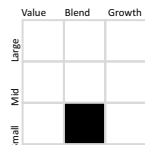
Portfolio Date: 6/30/2019



• Stock	95.4	%
• Bond	0.0	
• Cash	4.6	
• Other	0.0	
Total	100.0	

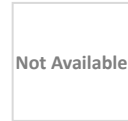
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	5.4	4.5
Consumer Cyclical %	15.8	9.0
Financial Services %	32.9	27.0
Real Estate %	9.1	14.8
Consumer Defensive %	7.1	3.5
Healthcare %	1.0	3.6
Utilities %	3.6	7.6
Communication Services %	0.0	1.0
Energy %	4.4	3.9
Industrials %	13.9	12.9
Technology %	6.7	12.1

Credit Quality

	Avg Eff Duration
	Avg Eff Maturity
	Avg Cred Qual
	Cred Qual AAA%
	Cred Qual AA%
	Cred Qual A%
	Cred Qual BBB %
	Cred Qual BB %
	Cred Qual B %
	Cred Qual Below B %

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
UniFirst Corp		126	3.28	3.92%
The Hanover Insurance Group Inc		93	3.33	2.88%
Cedar Fair LP		88	15.34	2.73%
Nomad Foods Ltd		84	-12.62	2.61%
Equity Commonwealth		76	5.05	2.37%
Argo Group International Holdings Ltd		75	-9.32	2.35%
Atlantic Union Bankshares Corp		71	2.92	2.21%
Black Hills Corp		71	-2.11	2.20%
Stag Industrial Inc		69	-0.43	2.14%
Cadence Bancorp Class A		68	-14.93	2.13%
Turnover Ratio %				39.00
% Asset in Top 10 Holdings				25.52

Key Information

Ticker	JSCOX
Morningstar Category	US Fund Small Value
Firm Name	Janus Henderson
Advisor	Janus Capital Management LLC
Manager Name	Multiple
Inception Date	7/6/2009
Fund Size (Mil)	3,398.35
Prospectus Net Expense Ratio	0.88
Firm Name	Janus Henderson
Web Address	janushenderson.com

Key Information

Morningstar Rating Overall	★★★★★
Morningstar Rating 3 Yr	★★★★★
Morningstar Return % Rank Cat 3 Yr	7
Morningstar Rating 5 Yr	★★★★★
Morningstar Return % Rank Cat 5 Yr	3
Morningstar Rating 10 Yr	★★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	11

Key Statistics

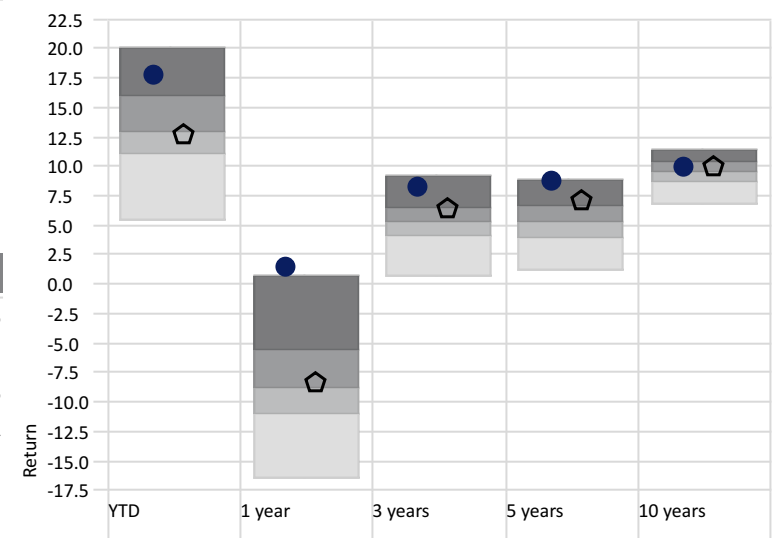
Arithmetic Mean 3 Yr (Mo-End)	0.76
Std Dev 3 Yr (Mo-End)	13.93
Alpha 3 Yr (Mo-End)	-4.06
Sharpe Ratio 3 Yr (Mo-End)	0.54
Arithmetic Mean 5 Yr (Mo-End)	0.78
Std Dev 5 Yr (Mo-End)	12.95
Alpha 5 Yr (Mo-End)	-1.00
Sharpe Ratio 5 Yr (Mo-End)	0.64

Investment Strategy

The investment seeks capital appreciation. The fund pursues its investment objective by investing primarily in the common stocks of small companies whose stock prices are believed to be undervalued by the fund's portfolio managers. It invests, under normal circumstances, at least 80% of its net assets (plus any borrowings for investment purposes) in equity securities of small companies whose market capitalization, at the time of initial purchase, is less than the 12-month average of the maximum market capitalization for companies included in the Russell 2000® Value Index. The fund may invest up to 20% of its net assets in cash or similar investments.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Small Value

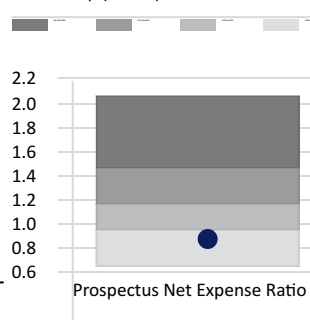


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Janus Henderson Small Cap Value I	17.88	1.49	8.44	8.83	10.11
Russell 2000 Value TR USD	12.82	-8.24	6.54	7.17	10.06
Median	12.92	-8.79	5.31	5.32	9.62
5th Percentile	20.07	0.76	9.18	8.95	11.45
25th Percentile	15.97	-5.54	6.40	6.66	10.39
50th Percentile	12.92	-8.79	5.31	5.32	9.62
75th Percentile	11.03	-11.05	4.07	4.01	8.68
95th Percentile	5.44	-16.36	0.64	1.25	6.80

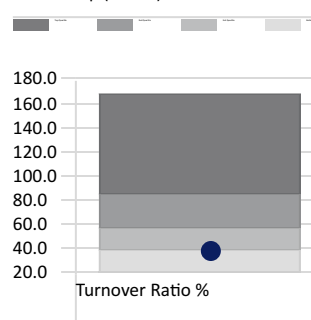
Expense vs Peer Group

Peer Group (5-95%): US OE Small Value



Turnover vs Peer Group

Peer Group (5-95%): US OE Small Value



Janus Henderson Small Cap Value I

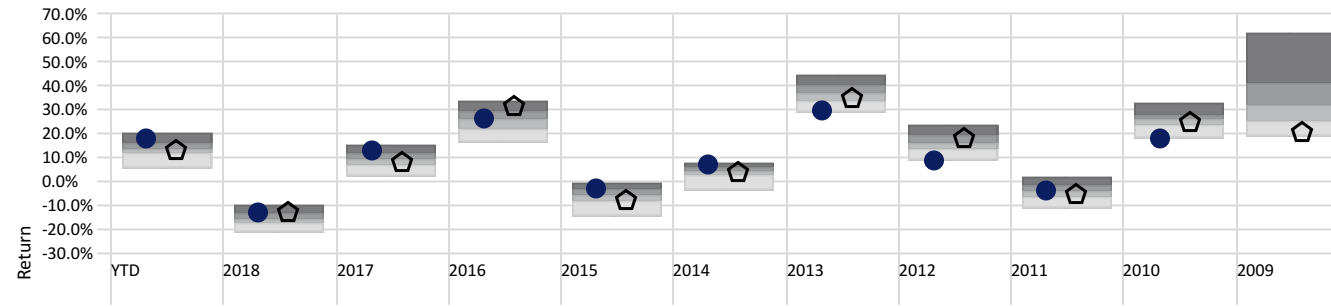
JSCOX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Small Value Calculation Benchmark: Russell 2000 Value TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



Janus Henderson Small Cap Value I

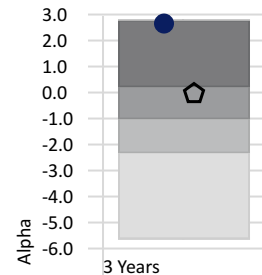
Russell 2000 Value TR USD

As of Date: 9/30/2019 Calculation Benchmark: Russell 2000 Value TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Janus Henderson Small Cap Value I	17.88	-13.04	12.81	26.45	-2.56	7.42	29.82	9.13	-3.28	18.13	
Russell 2000 Value TR USD	12.82	-12.86	7.84	31.74	-7.47	4.22	34.52	18.05	-5.50	24.50	20.58
Count	404	388	370	353	333	311	290	277	253	231	214
25th Percentile	15.97	-13.43	11.67	29.28	-3.73	5.84	39.38	18.97	-2.24	27.48	40.54
50th Percentile	12.92	-15.78	9.05	25.68	-6.28	4.21	36.40	15.91	-4.30	25.40	31.23
75th Percentile	11.03	-18.10	6.63	21.66	-8.38	2.11	33.12	13.37	-6.73	22.97	25.13

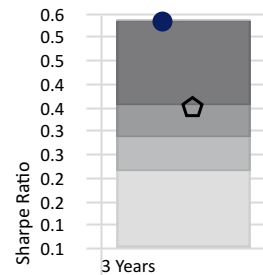
3 Yr Alpha

Peer Group (5-95%): US OE Small Value



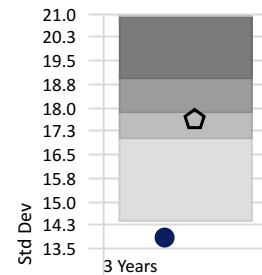
3 Yr Sharpe

Peer Group (5-95%): US OE Small Value



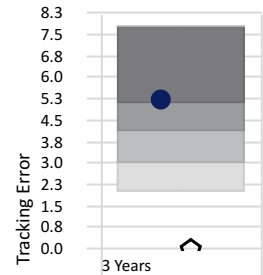
3 Yr Std Deviation

Peer Group (5-95%): US OE Small Value



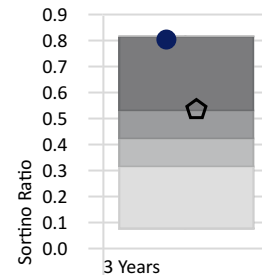
3 Yr Tracking Error

Peer Group (5-95%): US OE Small Value



3 Yr Sortino

Peer Group (5-95%): US OE Small Value



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Janus Henderson Small Cap Value I	13.93	0.54	2.66	0.77	0.81	0.36	58.33	5.23
Russell 2000 Value TR USD	17.67	0.35			0.54			

US OE Small Value

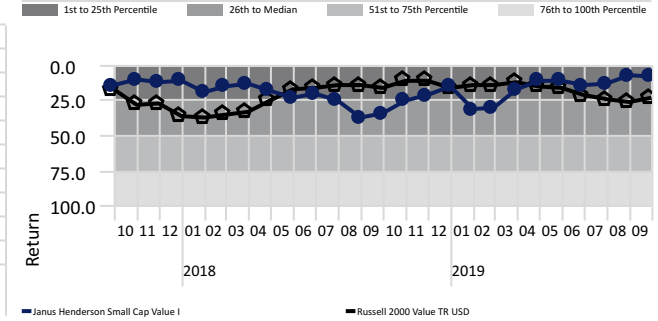
Janus Henderson Small Cap Value I	13.93	0.54	2.66	0.77	0.81	0.36	58.33	5.23
Russell 2000 Value TR USD	17.67	0.35			0.54			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

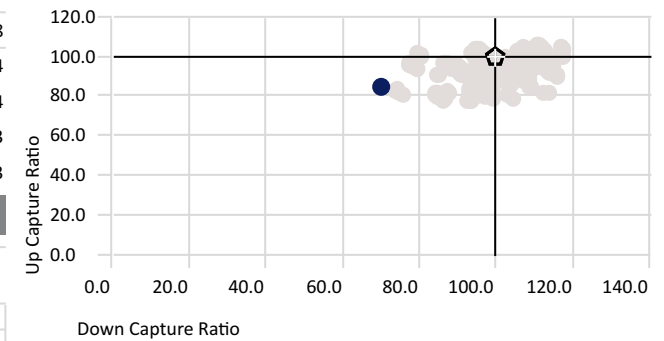
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: Russell 2000 Value TR USD



Up/Down Market Capture Ratio

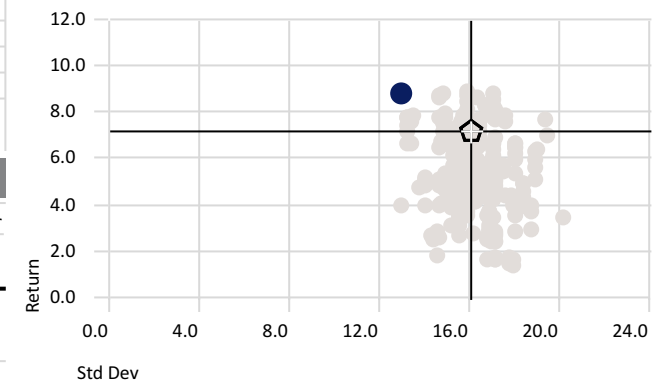
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: Russell 2000 Value TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



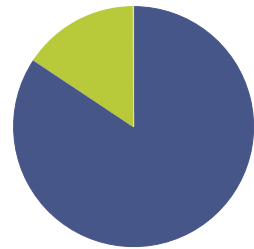
Federated Kaufmann Small Cap Instl

FKAIX



Asset Allocation

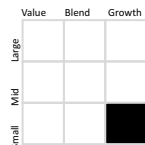
Portfolio Date: 6/30/2019



• Stock	84.3	%
• Bond	0.1	
• Cash	15.5	
• Other	0.1	
Total	100.0	

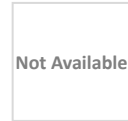
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	2.8	5.8
Consumer Cyclical %	11.8	15.1
Financial Services %	5.3	7.1
Real Estate %	7.9	3.2
Consumer Defensive %	2.5	3.8
Healthcare %	30.0	23.9
Utilities %	0.1	0.5
Communication Services %	0.2	1.3
Energy %	0.9	1.6
Industrials %	8.7	16.2
Technology %	29.7	21.4

Credit Quality

	Avg Eff Duration
	Avg Eff Maturity
	Avg Cred Qual
	Cred Qual AAA%
	Cred Qual AA%
	Cred Qual A%
	Credit Qual BBB %
	Credit Qual BB %
	Credit Qual B %
	Credit Qual Below B %

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
Federated Instl Prime Value Obligs Instl		491	0.55	15.53%
argenx SE ADR		48	-19.86	1.51%
argenx SE		43	-19.54	1.36%
Azul SA ADR		39	-4.91	1.23%
uniQure NV		38	-40.42	1.21%
Ryman Hospitality Properties Inc		37	7.48	1.18%
Planet Fitness Inc A		37	-21.63	1.16%
Veeva Systems Inc Class A		36	-12.49	1.13%
Hamilton Lane Inc Class A		36	-3.90	1.13%
Smartsheet Inc Class A		34	-24.03	1.07%
Turnover Ratio %				39.00
% Asset in Top 10 Holdings				12.02

Source: Morningstar Direct

Key Information

Ticker	FKAIX
Morningstar Category	US Fund Small Growth
Firm Name	Federated
Advisor	Federated Equity Mgmt Co. Of Penn
Manager Name	Multiple
Inception Date	12/30/2015
Fund Size (Mil)	3,509.83
Prospectus Net Expense Ratio	0.91
Firm Name	Federated
Web Address	www.federatedinvestors.com

Key Information

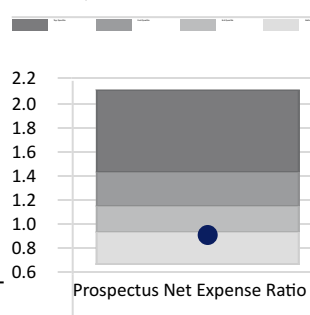
Morningstar Rating Overall	★★★★★
Morningstar Rating 3 Yr	★★★★★
Morningstar Return % Rank Cat 3 Yr	0
Morningstar Rating 5 Yr	
Morningstar Return % Rank Cat 5 Yr	
Morningstar Rating 10 Yr	
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	

Key Statistics

Arithmetic Mean 3 Yr (Mo-End)	1.72
Std Dev 3 Yr (Mo-End)	16.27
Alpha 3 Yr (Mo-End)	6.35
Sharpe Ratio 3 Yr (Mo-End)	1.17
Arithmetic Mean 5 Yr (Mo-End)	
Std Dev 5 Yr (Mo-End)	
Alpha 5 Yr (Mo-End)	
Sharpe Ratio 5 Yr (Mo-End)	

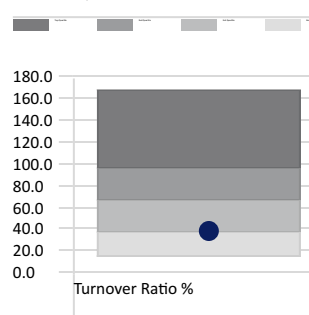
Expense vs Peer Group

Peer Group (5-95%): US OE Small Growth



Turnover vs Peer Group

Peer Group (5-95%): US OE Small Growth

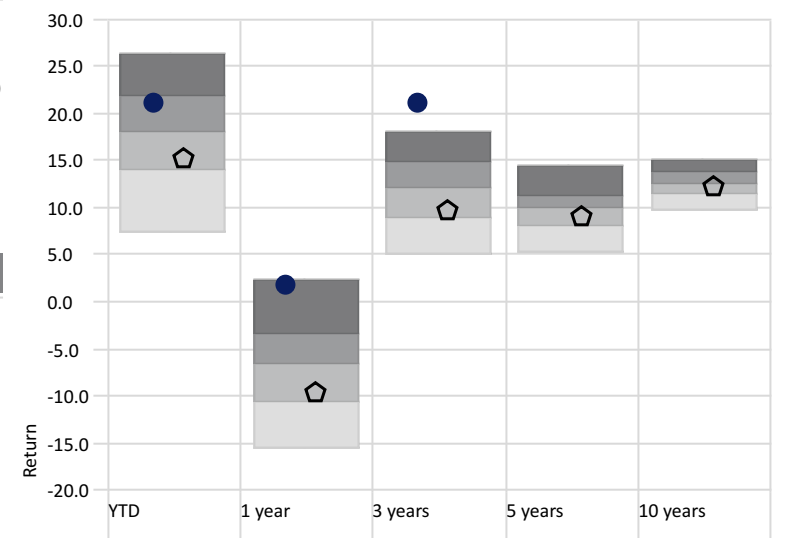


Investment Strategy

The investment seeks to provide capital appreciation. The fund invests primarily in the common stocks of small companies that are traded on national security exchanges, the NASDAQ stock market and on the over-the-counter market. It will normally invest at least 80% of its net assets (which include the amount of any borrowing for investment purposes) in small companies and will notify shareholders at least 60 days in advance of any change in its investment policies that would permit the fund to normally invest less than 80% of its net assets in investments in small companies.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Small Growth



As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Federated Kaufmann Small Cap Instl	21.18	1.91	21.16		
Russell 2000 Growth TR USD	15.34	-9.63	9.79	9.08	12.25
Median	18.09	-6.50	12.18	9.91	12.62
5th Percentile	26.29	2.28	17.99	14.54	14.98
25th Percentile	21.90	-3.38	14.86	11.36	13.75
50th Percentile	18.09	-6.50	12.18	9.91	12.62
75th Percentile	14.08	-10.61	9.02	8.13	11.44
95th Percentile	7.53	-15.49	5.04	5.21	9.86

Federated Kaufmann Small Cap Instl

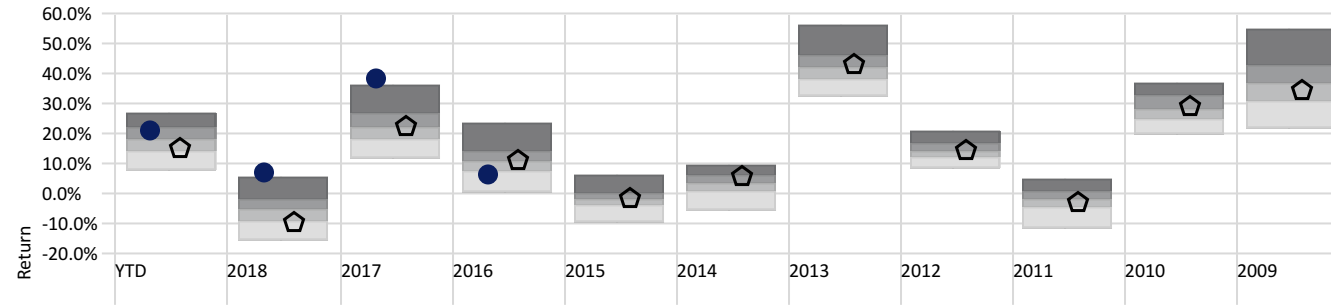
FKAIX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Small Growth Calculation Benchmark: Russell 2000 Growth TR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



Federated Kaufmann Small Cap Instl

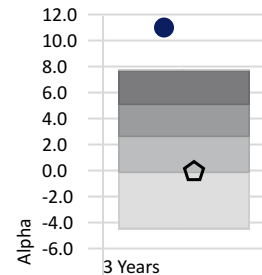
Russell 2000 Growth TR USD

As of Date: 9/30/2019 Calculation Benchmark: Russell 2000 Growth TR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Federated Kaufmann Small Cap Instl	21.18	7.40	38.46	6.27							
Russell 2000 Growth TR USD	15.34	-9.31	22.17	11.32	-1.38	5.60	43.30	14.59	-2.91	29.09	34.47
Count	650	630	578	547	519	490	468	435	415	396	374
25th Percentile	21.90	-1.91	26.41	13.95	-0.09	5.85	45.54	16.24	0.56	32.45	42.25
50th Percentile	18.09	-5.34	22.10	10.14	-2.19	3.21	41.80	14.09	-2.00	27.73	36.22
75th Percentile	14.08	-9.23	17.96	7.17	-4.35	0.49	37.79	11.86	-5.17	24.56	30.72

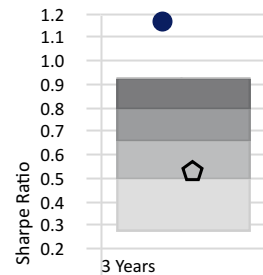
3 Yr Alpha

Peer Group (5-95%): US OE Small Growth



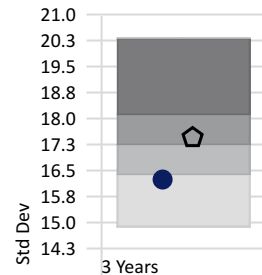
3 Yr Sharpe

Peer Group (5-95%): US OE Small Growth



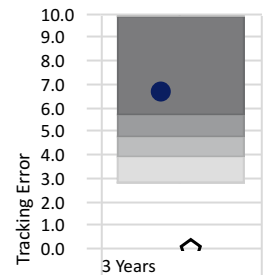
3 Yr Std Deviation

Peer Group (5-95%): US OE Small Growth



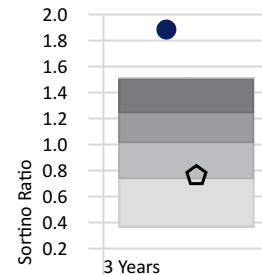
3 Yr Tracking Error

Peer Group (5-95%): US OE Small Growth



3 Yr Sortino

Peer Group (5-95%): US OE Small Growth



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years

US OE Small Growth

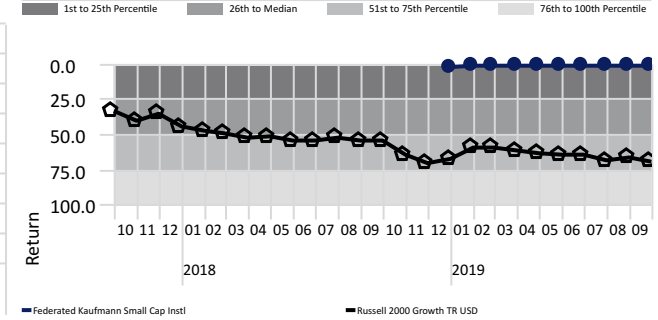
Federated Kaufmann Small Cap Instl	16.27	1.17	11.07	0.86	1.90	1.68	69.44	6.77
Russell 2000 Growth TR USD	17.47	0.53			0.76			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

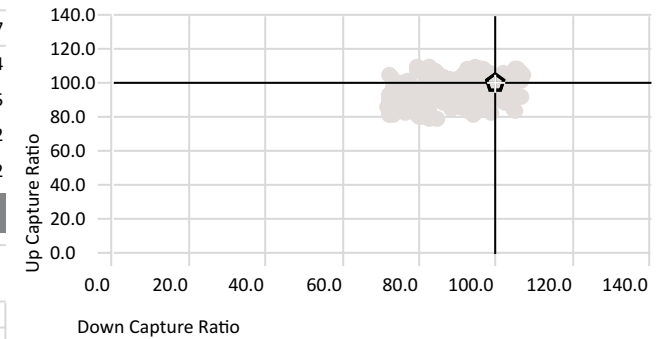
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: Russell 2000 Growth TR USD



Up/Down Market Capture Ratio

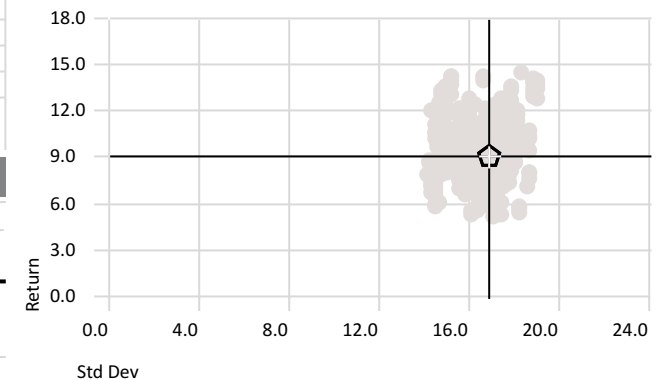
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: Russell 2000 Growth TR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



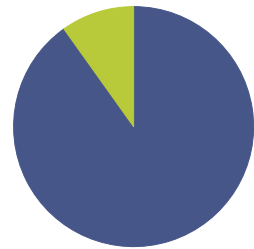
Morgan Stanley Inst Intl Advtg I

MFAIX



Asset Allocation

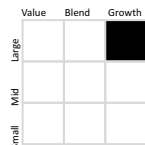
Portfolio Date: 6/30/2019



• Stock	90.1
• Bond	0.0
• Cash	9.9
• Other	0.0
Total	100.0

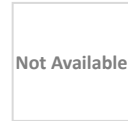
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	3.1	2.9
Consumer Cyclical %	18.7	15.7
Financial Services %	13.4	11.7
Real Estate %	0.0	1.1
Consumer Defensive %	25.9	9.8
Healthcare %	2.8	13.1
Utilities %	3.1	0.5
Communication Services %	0.0	1.9
Energy %	0.0	1.8
Industrials %	10.4	11.9
Technology %	22.4	29.5

Credit Quality

	Avg Eff Duration
	Avg Eff Maturity
	Avg Cred Qual
	Cred Qual AAA%
	Cred Qual AA%
	Cred Qual A%
	Credit Qual BBB %
	Credit Qual BB %
	Credit Qual B %
	Credit Qual Below B %

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
Morgan Stanley InstLqdy TrsSecsInstl		156	0.50	9.70%
DSV A/S		105	-1.71	6.56%
Moncler SpA		98	-12.92	6.07%
Hermes International SA		87	-3.72	5.41%
EPAM Systems Inc		79	-2.80	4.92%
Keyence Corp		79	2.36	4.91%
HDFC Bank Ltd		64	-1.92	3.97%
Rightmove PLC		58	5.20	3.61%
Booking Holdings Inc		56	5.65	3.46%
Pigeon Corp		54	19.08	3.35%
Turnover Ratio %				29.00
% Asset in Top 10 Holdings				45.53

Key Information

Ticker	MFAIX
Morningstar Category	US Fund Foreign Large Growth
Firm Name	Morgan Stanley
Advisor	Morgan Stanley Investment Management, Inc.
Manager Name	Multiple
Inception Date	12/28/2010
Fund Size (Mil)	1,921.82
Prospectus Net Expense Ratio	1.00
Firm Name	Morgan Stanley
Web Address	www.morganstanley.com

Key Information

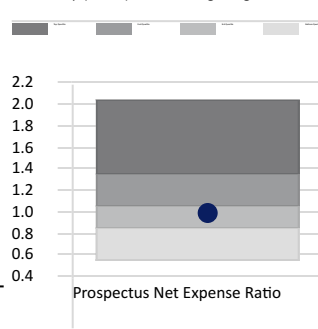
Morningstar Rating Overall	★★★★★
Morningstar Rating 3 Yr	★★★★★
Morningstar Return % Rank Cat 3 Yr	0
Morningstar Rating 5 Yr	★★★★★
Morningstar Return % Rank Cat 5 Yr	0
Morningstar Rating 10 Yr	
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	

Key Statistics

Arithmetic Mean 3 Yr (Mo-End)	1.33
Std Dev 3 Yr (Mo-End)	11.99
Alpha 3 Yr (Mo-End)	9.90
Sharpe Ratio 3 Yr (Mo-End)	1.20
Arithmetic Mean 5 Yr (Mo-End)	1.12
Std Dev 5 Yr (Mo-End)	11.87
Alpha 5 Yr (Mo-End)	10.24
Sharpe Ratio 5 Yr (Mo-End)	1.04

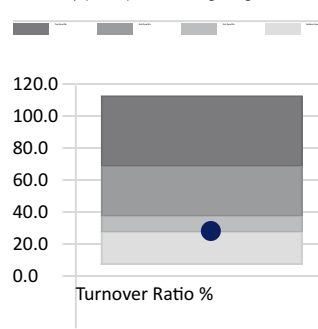
Expense vs Peer Group

Peer Group (5-95%): US OE Foreign Large Growth



Turnover vs Peer Group

Peer Group (5-95%): US OE Foreign Large Growth

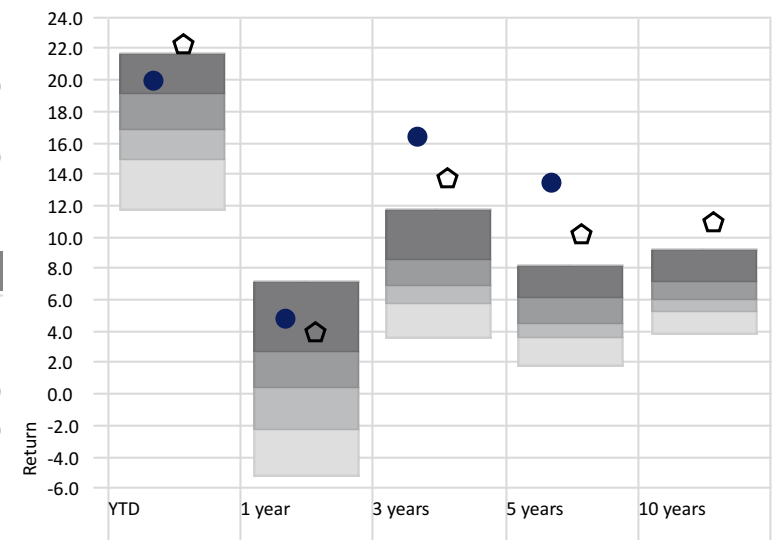


Investment Strategy

The investment seeks long-term capital appreciation. The fund invests primarily in established companies on an international basis, with capitalizations within the range of companies included in the MSCI All Country World ex USA Index. It typically invests at least 80% of its assets in the securities of issuers located outside of the United States. The fund may invest in foreign securities, which may include emerging market securities. It may invest in equity securities. The fund may also invest in privately placed and restricted securities.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Foreign Large Growth



As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Morgan Stanley Inst Intl Advtg I	20.08	4.90	16.41	13.47	
MSCI World Large Growth NR USD	22.29	4.02	13.72	10.20	10.96
Median	16.83	0.36	6.86	4.49	6.07
5th Percentile	21.72	7.10	11.68	8.23	9.19
25th Percentile	19.17	2.67	8.56	6.18	7.12
50th Percentile	16.83	0.36	6.86	4.49	6.07
75th Percentile	14.92	-2.33	5.76	3.57	5.22
95th Percentile	11.72	-5.25	3.62	1.81	3.78

Morgan Stanley Inst Intl Advtg I

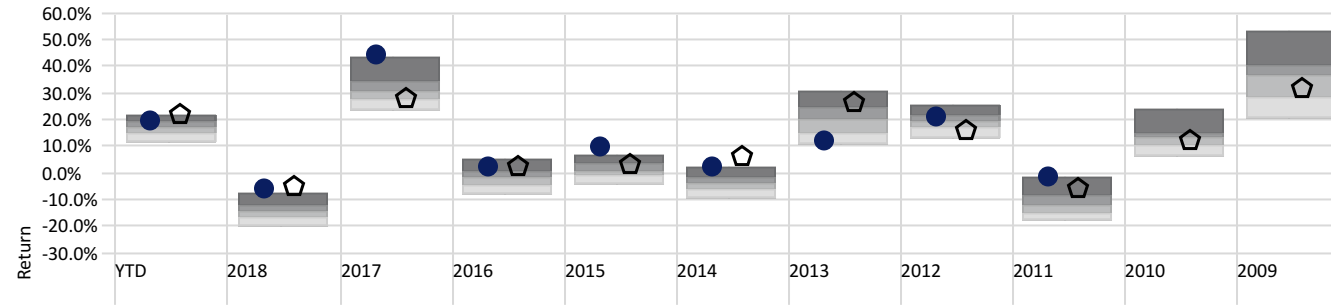
MFAIX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Foreign Large Growth Calculation Benchmark: MSCI World Large Growth NR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



● Morgan Stanley Inst Intl Advtg I

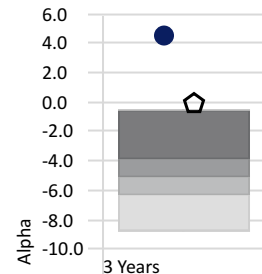
★ MSCI World Large Growth NR USD

As of Date: 9/30/2019 Calculation Benchmark: MSCI World Large Growth NR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Morgan Stanley Inst Intl Advtg I	20.08	-5.19	44.75	2.47	10.23	2.58	12.72	21.27	-1.31		
MSCI World Large Growth NR USD	22.29	-5.02	28.64	2.76	3.47	6.54	26.55	16.33	-5.12	12.62	32.18
Count	460	434	397	364	334	319	297	272	262	248	235
25th Percentile	19.17	-12.15	34.41	0.82	3.40	-1.63	24.79	21.18	-8.81	14.92	40.27
50th Percentile	16.83	-14.84	30.78	-1.70	0.77	-3.70	20.35	19.24	-12.57	12.95	36.74
75th Percentile	14.92	-16.74	27.34	-5.06	-0.94	-5.99	14.80	17.02	-14.89	10.03	28.14

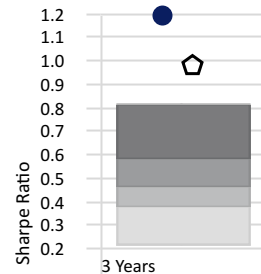
3 Yr Alpha

Peer Group (5-95%): US OE Foreign Large Growth



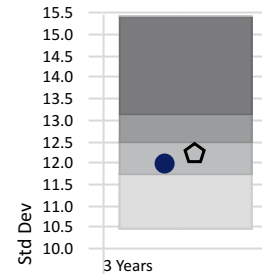
3 Yr Sharpe

Peer Group (5-95%): US OE Foreign Large Growth



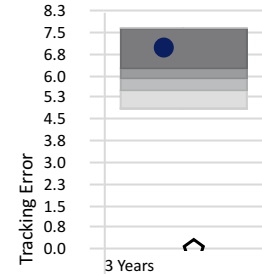
3 Yr Std Deviation

Peer Group (5-95%): US OE Foreign Large Growth



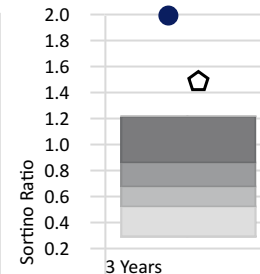
3 Yr Tracking Error

Peer Group (5-95%): US OE Foreign Large Growth



3 Yr Sortino

Peer Group (5-95%): US OE Foreign Large Growth



Performance Reporting

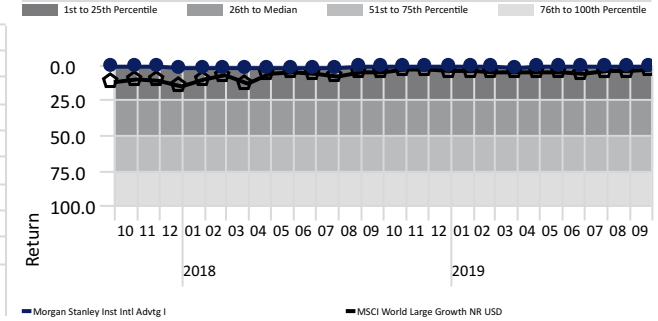
	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Morgan Stanley Inst Intl Advtg I	11.99	1.20	4.55	0.82	1.99	0.38	52.78	7.04
MSCI World Large Growth NR USD	12.25	0.98			1.48			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

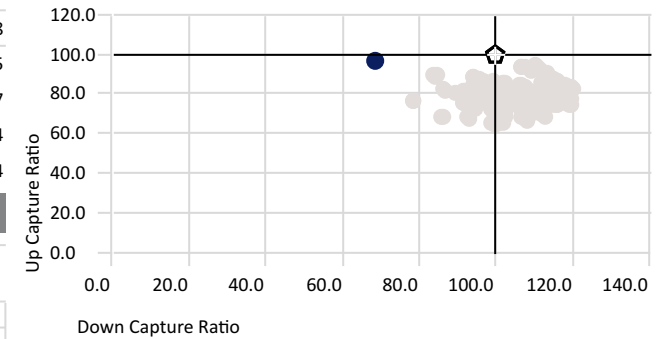
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: MSCI World Large Growth NR USD



Up/Down Market Capture Ratio

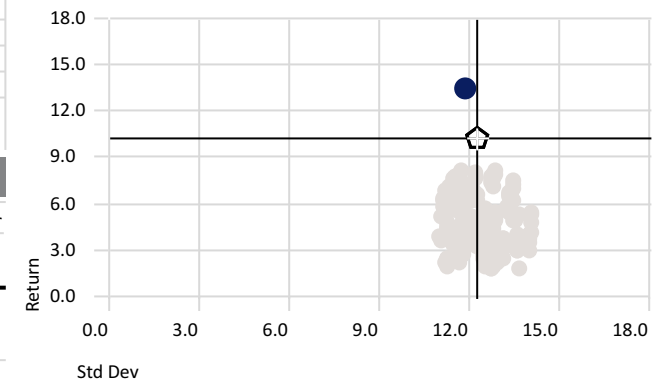
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: MSCI World Large Growth NR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



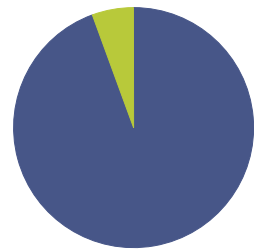
American Funds New Perspective R6

RNPGX



Asset Allocation

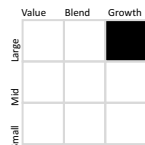
Portfolio Date: 6/30/2019



• Stock	94.4	%
• Bond	0.0	
• Cash	5.6	
• Other	0.0	
Total	100.0	

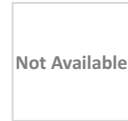
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	5.9	4.9
Consumer Cyclical %	15.9	11.8
Financial Services %	15.8	18.3
Real Estate %	0.6	3.2
Consumer Defensive %	7.8	8.6
Healthcare %	13.0	11.4
Utilities %	1.2	3.2
Communication Services %	2.0	3.8
Energy %	3.9	5.9
Industrials %	9.4	10.6
Technology %	24.6	18.3

Credit Quality

	Avg Eff Duration
	Avg Eff Maturity
	Avg Cred Qual
	Cred Qual AAA%
	Cred Qual AA%
	Cred Qual A%
	Credit Qual BBB %
	Credit Qual BB %
	Credit Qual B %
	Credit Qual Below B %

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
Capital Group Central Cash Fund		4,990		5.56%
Amazon.com Inc		3,331	-13.65	3.71%
Facebook Inc A		2,624	-10.54	2.92%
Microsoft Corp		2,179	0.80	2.43%
Mastercard Inc A		1,773	-1.01	1.98%
Taiwan Semiconductor Manufacturing Co Ltd		1,640	17.44	1.83%
Broadcom Inc		1,486	-0.38	1.66%
JPMorgan Chase & Co		1,379	1.78	1.54%
Visa Inc Class A		1,375	-1.51	1.53%
AIA Group Ltd		1,314	-13.86	1.46%
Turnover Ratio %				23.00
% Asset in Top 10 Holdings				20.45

Source: Morningstar Direct

Key Information

Ticker	RNPGX
Morningstar Category	US Fund World Large Stock
Firm Name	American Funds
Advisor	Capital Research and Management Company
Manager Name	Multiple
Inception Date	5/1/2009
Fund Size (Mil)	89,257.35
Prospectus Net Expense Ratio	0.45
Firm Name	American Funds
Web Address	www.americanfunds.com

Key Information

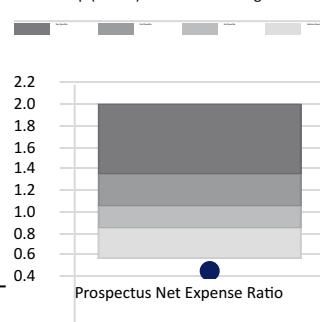
Morningstar Rating Overall	★★★★★
Morningstar Rating 3 Yr	★★★★
Morningstar Return % Rank Cat 3 Yr	13
Morningstar Rating 5 Yr	★★★★
Morningstar Return % Rank Cat 5 Yr	10
Morningstar Rating 10 Yr	★★★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	9

Key Statistics

Arithmetic Mean 3 Yr (Mo-End)	1.04
Std Dev 3 Yr (Mo-End)	11.98
Alpha 3 Yr (Mo-End)	5.82
Sharpe Ratio 3 Yr (Mo-End)	0.90
Arithmetic Mean 5 Yr (Mo-End)	0.83
Std Dev 5 Yr (Mo-End)	11.92
Alpha 5 Yr (Mo-End)	6.68
Sharpe Ratio 5 Yr (Mo-End)	0.75

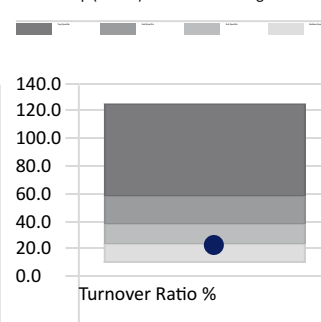
Expense vs Peer Group

Peer Group (5-95%): US OE World Large Stock



Turnover vs Peer Group

Peer Group (5-95%): US OE World Large Stock

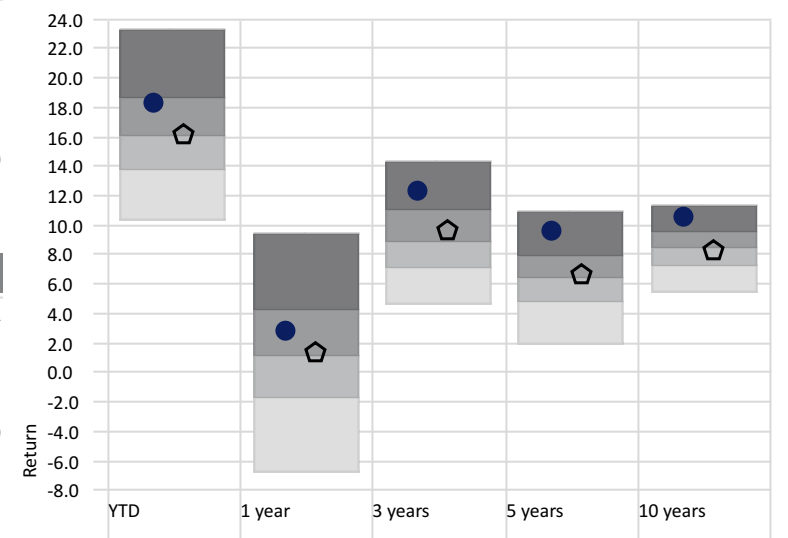


Investment Strategy

The investment seeks long-term growth of capital; future income is a secondary objective. The fund seeks to take advantage of investment opportunities generated by changes in international trade patterns and economic and political relationships by investing in common stocks of companies located around the world. In pursuing its primary investment objective, it invests primarily in common stocks that the investment adviser believes have the potential for growth. In pursuing its secondary objective, the fund invests in common stocks of companies with the potential to pay dividends in the future.

Performance Relative to Peer Group

Peer Group (5-95%): US OE World Large Stock



As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
American Funds New Perspective R6	18.45	2.88	12.38	9.72	10.67
MSCI ACWI NR USD	16.20	1.38	9.71	6.65	8.35
Median	16.10	1.14	8.84	6.39	8.49
5th Percentile	23.29	9.39	14.29	10.93	11.31
25th Percentile	18.73	4.27	11.09	7.90	9.60
50th Percentile	16.10	1.14	8.84	6.39	8.49
75th Percentile	13.81	-1.75	7.10	4.85	7.18
95th Percentile	10.42	-6.75	4.62	1.95	5.47

American Funds New Perspective R6

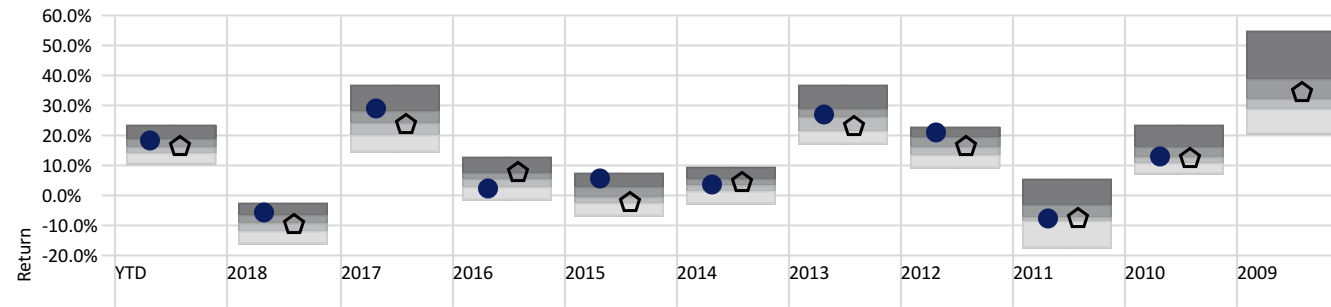
RNPGX



Performance Relative to Peer Group

Peer Group (5-95%): US OE World Large Stock Calculation Benchmark: MSCI ACWI NR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



American Funds New Perspective R6

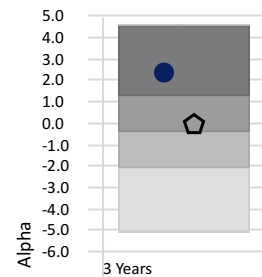
MSCI ACWI NR USD

As of Date: 9/30/2019 Calculation Benchmark: MSCI ACWI NR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
American Funds New Perspective R6	18.45	-5.56	29.30	2.19	5.63	3.56	27.23	21.19	-7.33	13.11	
MSCI ACWI NR USD	16.20	-9.41	23.97	7.86	-2.36	4.16	22.80	16.13	-7.35	12.67	34.63
Count	858	800	715	662	611	564	503	430	398	376	335
25th Percentile	18.73	-6.61	27.87	7.28	2.13	5.07	28.77	19.21	-3.66	15.52	38.67
50th Percentile	16.10	-9.66	24.04	5.42	-1.09	3.35	25.53	16.05	-7.26	12.72	31.88
75th Percentile	13.81	-12.05	20.07	2.73	-2.82	1.16	21.37	13.33	-9.03	10.60	28.16

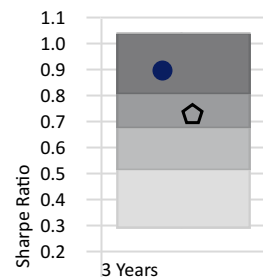
3 Yr Alpha

Peer Group (5-95%): US OE World Large Stock



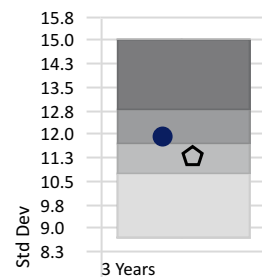
3 Yr Sharpe

Peer Group (5-95%): US OE World Large Stock



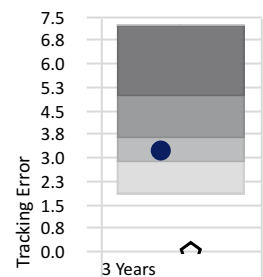
3 Yr Std Deviation

Peer Group (5-95%): US OE World Large Stock



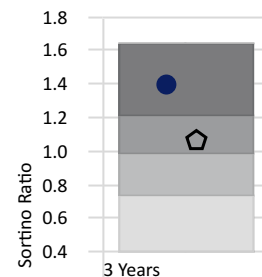
3 Yr Tracking Error

Peer Group (5-95%): US OE World Large Stock



3 Yr Sortino

Peer Group (5-95%): US OE World Large Stock



Performance Reporting

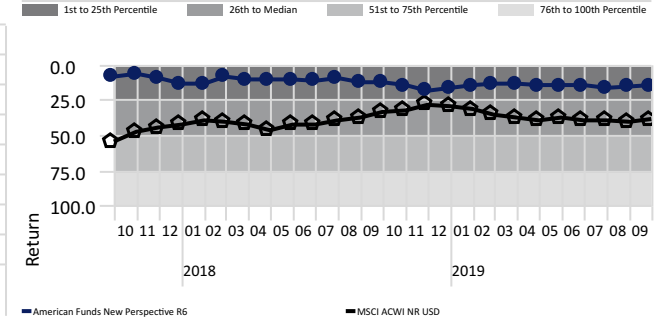
	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
US OE World Large Stock								
American Funds New Perspective R6	11.98	0.90	2.36	1.02	1.40	0.82	61.11	3.27
MSCI ACWI NR USD	11.32	0.73			1.07			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

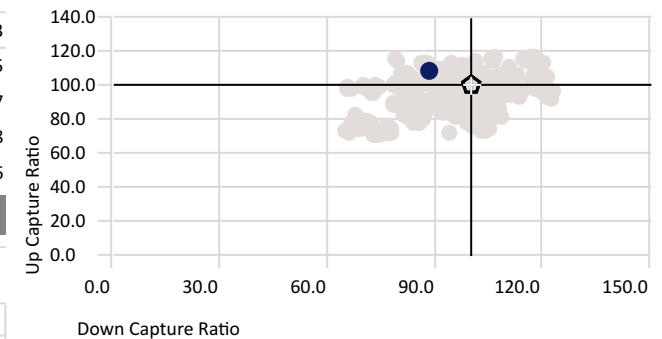
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: MSCI ACWI NR USD



Up/Down Market Capture Ratio

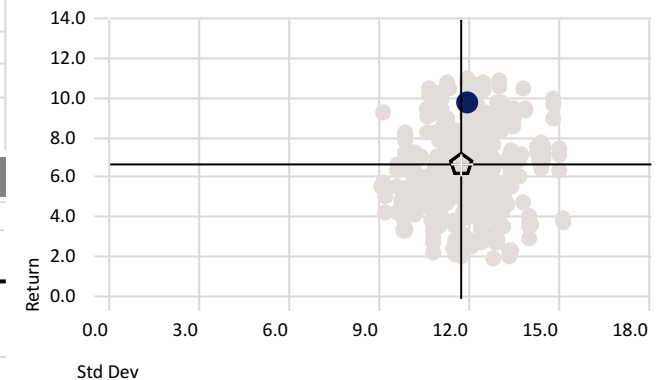
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: MSCI ACWI NR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



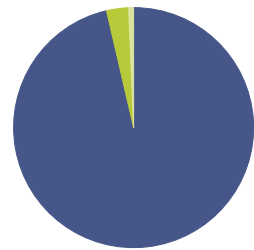
Vanguard Emerging Mkts Stock Idx Instl

VEMIX



Asset Allocation

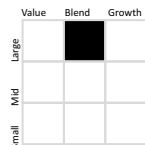
Portfolio Date: 8/31/2019



• Stock	96.4	%
• Bond	0.0	
• Cash	3.0	
• Other	0.7	
Total	100.0	

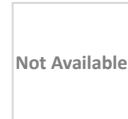
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	7.7	8.1
Consumer Cyclical %	11.6	11.7
Financial Services %	24.7	24.6
Real Estate %	4.2	4.2
Consumer Defensive %	7.1	7.0
Healthcare %	3.2	3.2
Utilities %	3.2	3.3
Communication Services %	4.6	4.7
Energy %	7.5	7.4
Industrials %	5.7	5.8
Technology %	20.4	20.2

Credit Quality

	Avg Eff Duration
	Avg Eff Maturity
	Avg Cred Qual
	Cred Qual AAA%
	Cred Qual AA%
	Cred Qual A%
	Credit Qual BBB %
	Credit Qual BB %
	Credit Qual B %
	Credit Qual Below B %

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
Tencent Holdings Ltd		3,645	-9.07	4.35%
Alibaba Group Holding Ltd ADR		3,164	1.24	3.78%
Cmt Market Liquidity Rate		2,395		2.86%
Taiwan Semiconductor Manufacturing Co Ltd		1,914	17.44	2.28%
Naspers Ltd Class N		1,500	-7.40	1.79%
Taiwan Semiconductor Manufacturing Co Ltd ADR		1,157	21.83	1.38%
China Construction Bank Corp Class H		1,063	-0.38	1.27%
Ping An Insurance (Group) Co. of China Ltd Class H		948	0.93	1.13%
Reliance Industries Ltd		842	2.92	1.00%
Housing Development Finance Corp Ltd		811	-14.10	0.97%
Turnover Ratio %				11.00
% Asset in Top 10 Holdings				18.87

Key Information

Ticker	VEMIX
Morningstar Category	US Fund Diversified Emerging Mkts
Firm Name	Vanguard
Advisor	Vanguard Group Inc
Manager Name	Multiple
Inception Date	6/22/2000
Fund Size (Mil)	83,541.08
Prospectus Net Expense Ratio	0.10
Firm Name	Vanguard
Web Address	www.vanguard.com

Key Information

Morningstar Rating Overall	★★★
Morningstar Rating 3 Yr	★★★
Morningstar Return % Rank Cat 3 Yr	49
Morningstar Rating 5 Yr	★★★
Morningstar Return % Rank Cat 5 Yr	46
Morningstar Rating 10 Yr	★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	54

Key Statistics

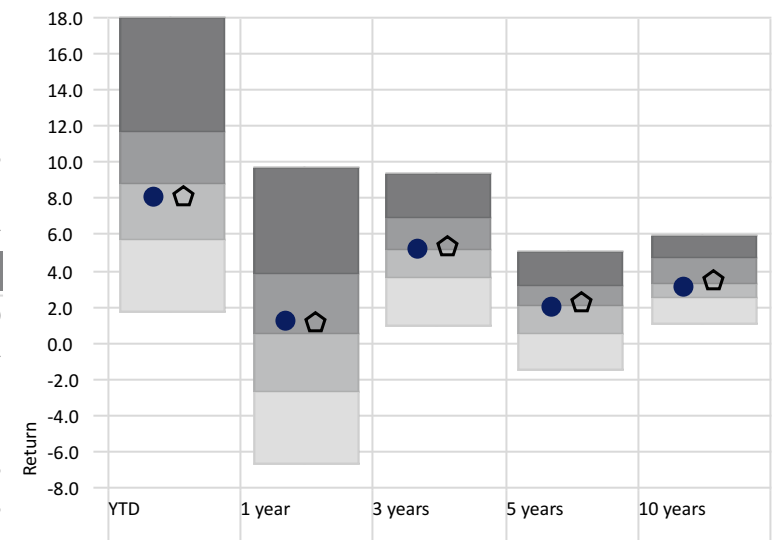
Arithmetic Mean 3 Yr (Mo-End)	0.50
Std Dev 3 Yr (Mo-End)	13.34
Alpha 3 Yr (Mo-End)	-0.98
Sharpe Ratio 3 Yr (Mo-End)	0.33
Arithmetic Mean 5 Yr (Mo-End)	0.26
Std Dev 5 Yr (Mo-End)	15.06
Alpha 5 Yr (Mo-End)	-0.64
Sharpe Ratio 5 Yr (Mo-End)	0.14

Investment Strategy

The investment seeks to track the performance of a benchmark index that measures the investment return of stocks issued by companies located in emerging market countries. The fund employs an indexing investment approach designed to track the performance of the FTSE Emerging Markets All Cap China A Inclusion Index. It invests by sampling the index, meaning that it holds a broadly diversified collection of securities that, in the aggregate, approximates the index in terms of key characteristics.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Diversified Emerging Markets

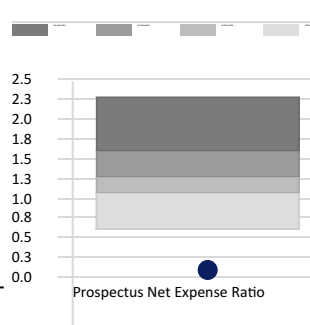


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Vanguard Emerging Mkts Stock Idx Instl	8.12	1.31	5.31	2.05	3.21
FTSE EMs AC China A Incl (US RIC) NR USD	8.11	1.16	5.41	2.34	3.55
Median	8.85	0.52	5.17	2.06	3.32
5th Percentile	17.97	9.66	9.31	5.08	5.96
25th Percentile	11.71	3.81	6.88	3.16	4.75
50th Percentile	8.85	0.52	5.17	2.06	3.32
75th Percentile	5.71	-2.66	3.57	0.57	2.46
95th Percentile	1.77	-6.70	0.99	-1.48	1.06

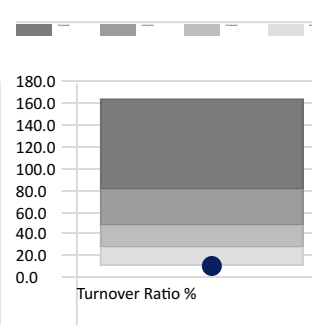
Expense vs Peer Group

Peer Group (5-95%): US OE Diversified Emerging Markets



Turnover vs Peer Group

Peer Group (5-95%): US OE Diversified Emerging Markets



Vanguard Emerging Mkts Stock Idx Instl

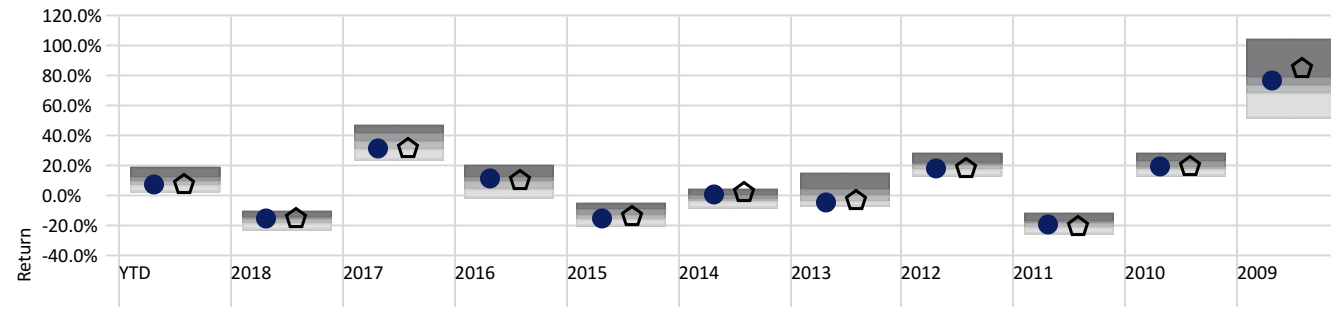
VEMIX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Diversified Emerging Markets Calculation Benchmark: FTSE EMs AC China A Incl (US RIC) NR USD

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



● Vanguard Emerging Mkts Stock Idx Instl

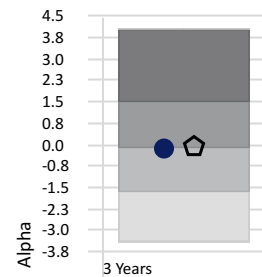
★ FTSE EMs AC China A Incl (US RIC) NR USD

As of Date: 9/30/2019 Calculation Benchmark: FTSE EMs AC China A Incl (US RIC) NR USD

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Vanguard Emerging Mkts Stock Idx Instl	8.12	-14.54	31.43	11.76	-15.34	0.67	-4.99	18.91	-18.63	19.06	76.35
FTSE EMs AC China A Incl (US RIC) NR USD	8.11	-14.77	31.06	10.30	-13.55	2.64	-3.17	18.14	-19.99	19.81	85.17
Count	778	720	671	618	547	466	402	345	276	235	224
25th Percentile	11.71	-14.56	40.74	11.68	-10.02	0.02	3.56	21.28	-17.39	22.26	78.44
50th Percentile	8.85	-16.62	36.11	8.25	-13.56	-2.82	-0.89	19.33	-18.86	18.85	72.91
75th Percentile	5.71	-19.12	30.63	3.96	-16.03	-4.76	-4.02	16.95	-21.62	17.28	67.38

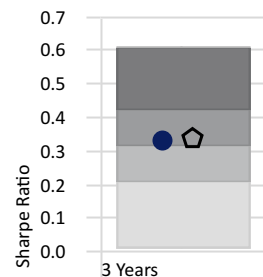
3 Yr Alpha

Peer Group (5-95%): US OE Diversified Emerging Markets



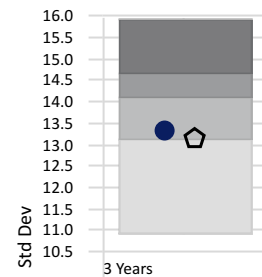
3 Yr Sharpe

Peer Group (5-95%): US OE Diversified Emerging Markets



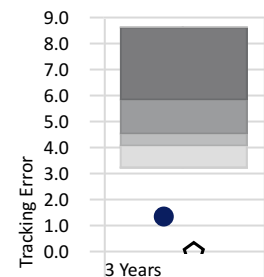
3 Yr Std Deviation

Peer Group (5-95%): US OE Diversified Emerging Markets



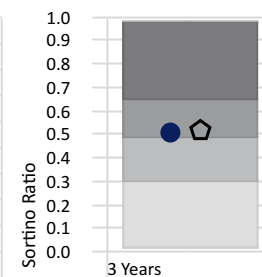
3 Yr Tracking Error

Peer Group (5-95%): US OE Diversified Emerging Markets



3 Yr Sortino

Peer Group (5-95%): US OE Diversified Emerging Markets



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Vanguard Emerging Mkts Stock Idx Instl	13.34	0.33	-0.12	1.01	0.51	-0.07	47.22	1.42
FTSE EMs AC China A Incl (US RIC) NR USD	13.15	0.34			0.52			

US OE Diversified Emerging Mkts

Vanguard Emerging Mkts Stock Idx Instl	13.34	0.33	-0.12	1.01	0.51	-0.07	47.22	1.42
FTSE EMs AC China A Incl (US RIC) NR USD	13.15	0.34			0.52			

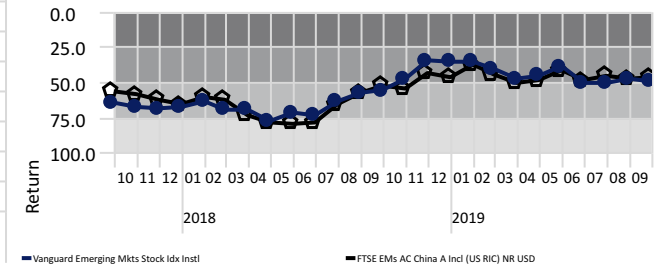
Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

Rolling Window: 3 Years 1 Month shift Calculation Benchmark: FTSE EMs AC China A Incl (US RIC) NR USD

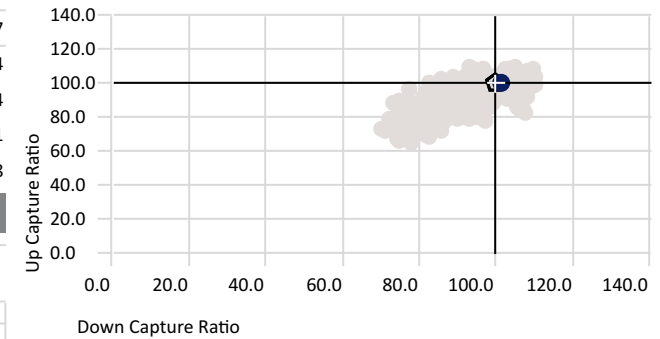
1st to 25th Percentile 26th to Median 51st to 75th Percentile 76th to 100th Percentile



Up/Down Market Capture Ratio

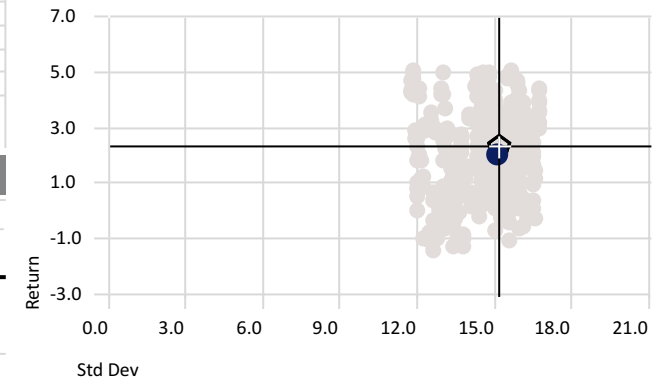
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: FTSE EMs AC China A Incl (US RIC) NR USD



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019



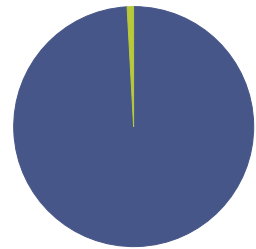
Vanguard Real Estate Index Institutional

VGSNX



Asset Allocation

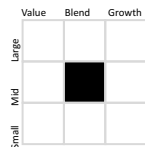
Portfolio Date: 8/31/2019



Stock	99.1	%
Bond	0.0	
Cash	0.9	
Other	0.0	
Total	100.0	

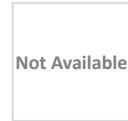
Equity Style

Morningstar Equity Style Box™



Fixed Income Style

Morningstar Fixed Income Style Box™



Sector Weightings

	Inv	Bmk1
Basic Materials %	0.3	0.3
Consumer Cyclical %	0.0	0.0
Financial Services %	0.0	0.0
Real Estate %	91.5	91.5
Consumer Defensive %	0.0	0.0
Healthcare %	0.0	0.0
Utilities %	0.0	0.0
Communication Services %	8.1	8.1
Energy %	0.0	0.0
Industrials %	0.0	0.0
Technology %	0.0	0.0

Credit Quality

	Avg Eff Duration
Avg Eff Maturity	
Avg Cred Qual	
Cred Qual AAA%	
Cred Qual AA%	
Cred Qual A%	
Credit Qual BBB %	
Credit Qual BB %	
Credit Qual B %	
Credit Qual Below B %	

Top Ten Holdings

	Inv Style	Market Val(mil)	Total Ret 3 Mo	Portfolio %
Vanguard Real Estate II Index		7,566	4.88	11.11%
American Tower Corp		4,909	8.43	7.21%
Crown Castle International Corp		2,912	3.57	4.27%
Prologis Inc		2,546	8.45	3.74%
Equinix Inc		2,255	10.03	3.31%
Simon Property Group Inc		2,220	-7.09	3.26%
Public Storage		2,006	-0.54	2.94%
Welltower Inc		1,745	9.33	2.56%
Equity Residential		1,515	11.79	2.22%
SBA Communications Corp		1,435	3.10	2.11%
Turnover Ratio %				24.00
% Asset in Top 10 Holdings				42.73

Key Information

Ticker	VGSNX
Morningstar Category	US Fund Real Estate
Firm Name	Vanguard
Advisor	Vanguard Group Inc
Manager Name	Multiple
Inception Date	12/2/2003
Fund Size (Mil)	69,464.76
Prospectus Net Expense Ratio	0.10
Firm Name	Vanguard
Web Address	www.vanguard.com

Key Information

Morningstar Rating Overall	★★★★
Morningstar Rating 3 Yr	★★★
Morningstar Return % Rank Cat 3 Yr	49
Morningstar Rating 5 Yr	★★★
Morningstar Return % Rank Cat 5 Yr	36
Morningstar Rating 10 Yr	★★★★
Morningstar Risk-Adj Ret % Rank Cat 10 Yr	31

Key Statistics

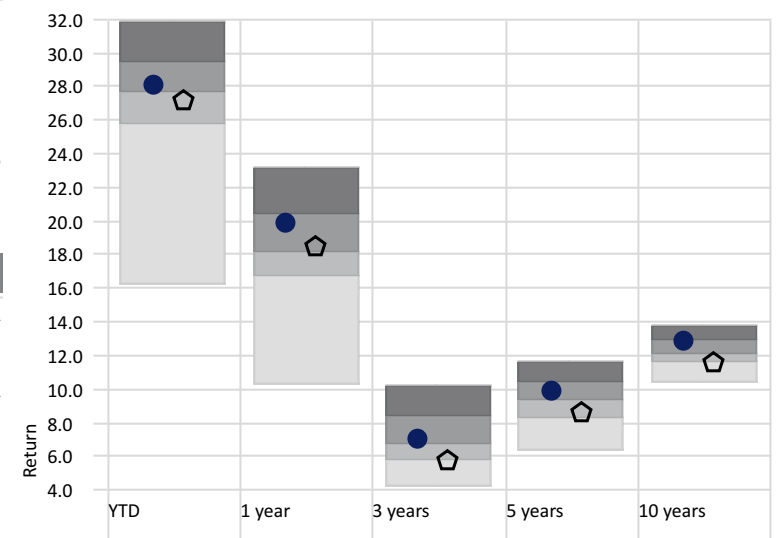
Arithmetic Mean 3 Yr (Mo-End)	0.64
Std Dev 3 Yr (Mo-End)	12.88
Alpha 3 Yr (Mo-End)	1.54
Sharpe Ratio 3 Yr (Mo-End)	0.47
Arithmetic Mean 5 Yr (Mo-End)	0.88
Std Dev 5 Yr (Mo-End)	14.31
Alpha 5 Yr (Mo-End)	6.38
Sharpe Ratio 5 Yr (Mo-End)	0.67

Investment Strategy

The investment seeks to provide a high level of income and moderate long-term capital appreciation by tracking the performance of the MSCI US Investable Market Real Estate 25/50 Index that measures the performance of publicly traded equity REITs and other real estate-related investments. The advisor attempts to track the index by investing all, or substantially all, of its assets-either directly or indirectly through a wholly owned subsidiary, which is itself a registered investment company-in the stocks that make up the index, holding each stock in approximately the same proportion as its weighting in the index. The fund is non-diversified.

Performance Relative to Peer Group

Peer Group (5-95%): US OE Real Estate

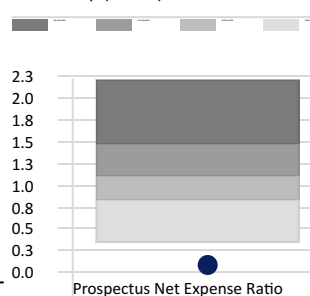


As of Date: 9/30/2019

	YTD	1 year	3 years	5 years	10 years
Vanguard Real Estate Index Institutional	28.20	19.92	7.10	9.96	12.91
Vanguard Real Estate Index	27.17	18.58	5.85	8.68	11.61
Median	27.68	18.15	6.79	9.42	12.15
5th Percentile	31.80	23.17	10.25	11.60	13.83
25th Percentile	29.47	20.48	8.40	10.41	12.97
50th Percentile	27.68	18.15	6.79	9.42	12.15
75th Percentile	25.77	16.75	5.84	8.34	11.63
95th Percentile	16.25	10.33	4.23	6.43	10.42

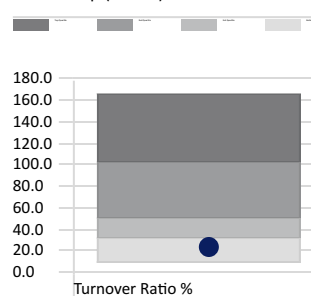
Expense vs Peer Group

Peer Group (5-95%): US OE Real Estate



Turnover vs Peer Group

Peer Group (5-95%): US OE Real Estate



Vanguard Real Estate Index Institutional

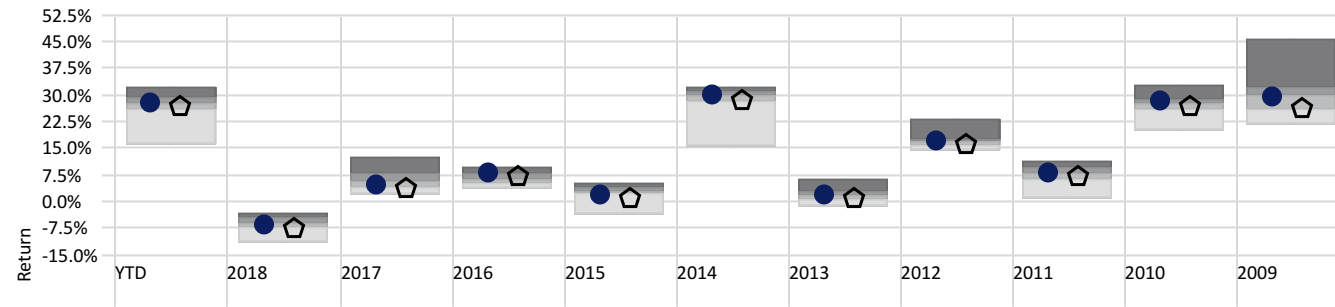
VGSNX



Performance Relative to Peer Group

Peer Group (5-95%): US OE Real Estate Calculation Benchmark: Vanguard Real Estate Index

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



● Vanguard Real Estate Index Institutional

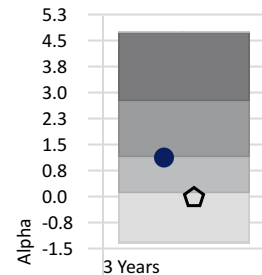
★ Vanguard Real Estate Index

As of Date: 9/30/2019 Calculation Benchmark: Vanguard Real Estate Index

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Vanguard Real Estate Index Institutional	28.20	-5.93	4.93	8.51	2.45	30.28	2.48	17.65	8.70	28.56	29.76
Vanguard Real Estate Index	27.17	-7.05	3.74	7.14	1.28	28.82	1.26	16.47	7.48	26.97	26.27
Count	240	228	209	203	191	178	164	156	148	134	127
25th Percentile	29.47	-4.61	7.79	7.74	3.87	30.77	2.67	17.72	9.32	28.81	31.96
50th Percentile	27.68	-5.96	5.38	5.98	2.96	29.73	1.70	16.74	8.10	27.60	29.58
75th Percentile	25.77	-7.52	4.07	5.00	2.05	28.20	0.80	15.91	6.25	25.75	26.08

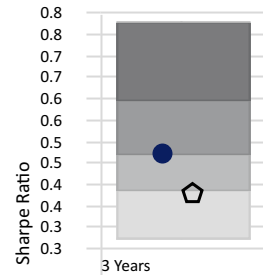
3 Yr Alpha

Peer Group (5-95%): US OE Real Estate



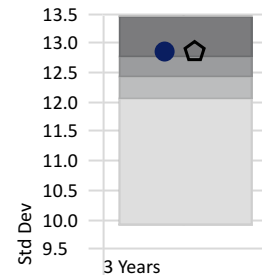
3 Yr Sharpe

Peer Group (5-95%): US OE Real Estate



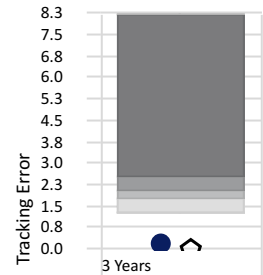
3 Yr Std Deviation

Peer Group (5-95%): US OE Real Estate



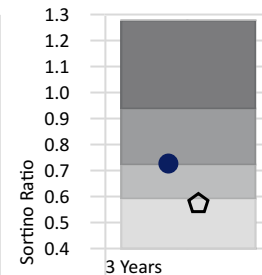
3 Yr Tracking Error

Peer Group (5-95%): US OE Real Estate



3 Yr Sortino

Peer Group (5-95%): US OE Real Estate



Performance Reporting

	Std Dev	Sharpe Ratio	Alpha	Beta	Sortino Ratio	Information Ratio (arith)	Batting Average	Tracking Error
	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Vanguard Real Estate Index Institutional	12.88	0.47	1.17	1.00	0.73	5.48	100.00	0.23
Vanguard Real Estate Index	12.86	0.38			0.58			

US OE Real Estate

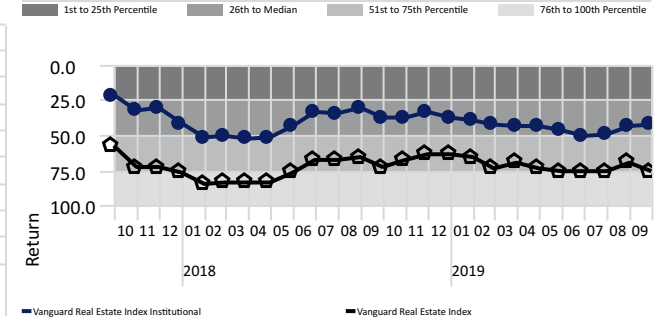
Vanguard Real Estate Index Institutional	12.88	0.47	1.17	1.00	0.73	5.48	100.00	0.23
Vanguard Real Estate Index	12.86	0.38			0.58			

Source: Morningstar Direct

Rolling Returns Rank in Category

Time Period: 10/1/2014 to 9/30/2019

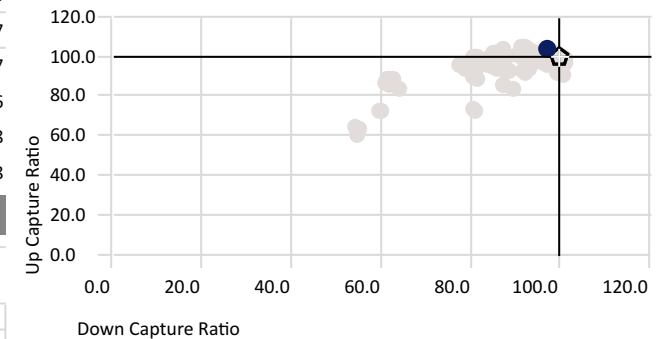
Rolling Window: 3 Years 1 Month shift Calculation Benchmark: Vanguard Real Estate Index



Up/Down Market Capture Ratio

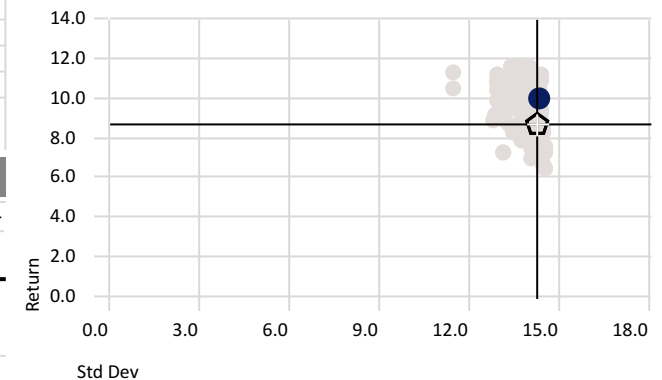
Time Period: 10/1/2014 to 9/30/2019

Calculation Benchmark: Vanguard Real Estate Index



Risk-Reward

Time Period: 10/1/2014 to 9/30/2019

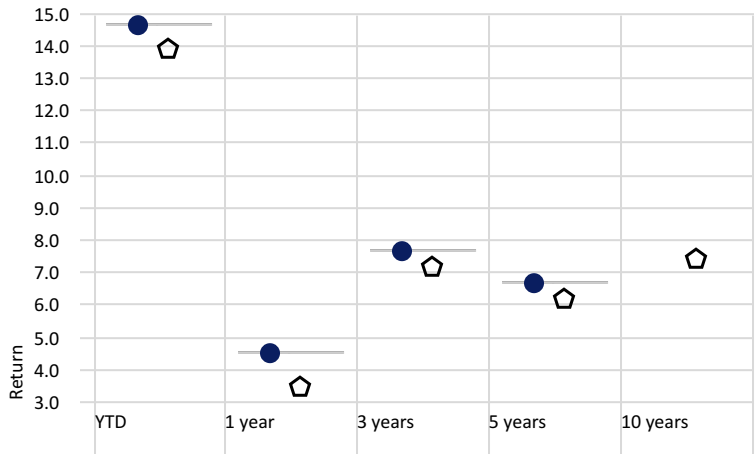


OPEB Plan - Return



Performance Versus Benchmark

Peer Group (5-95%): Display Group



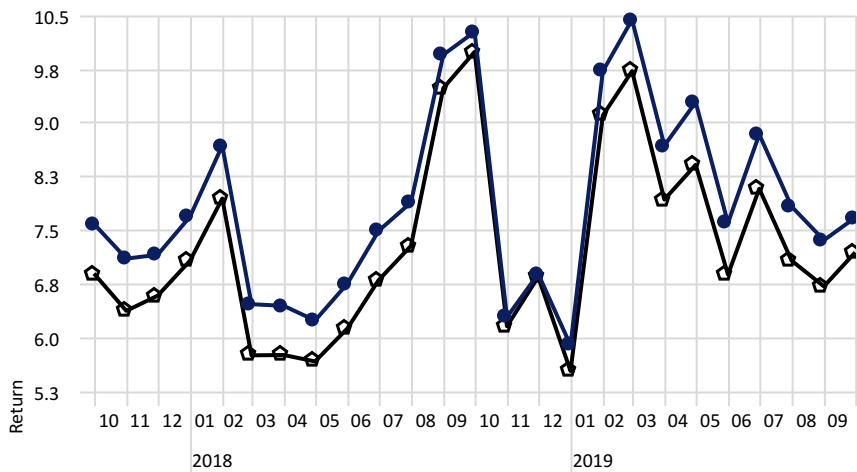
As of Date: 9/30/2019

	YTD	3 months	1 year	3 years	5 years	10 years
OPEB Plan - Return	14.70	0.55	4.56	7.68	6.70	
Dover OPEB Index	13.95	1.06	3.51	7.20	6.21	7.44

Rolling Returns

Time Period: 10/1/2014 to 9/30/2019

Rolling Window: 3 Years 1 Month shift Calculation Benchmark: Dover OPEB Index

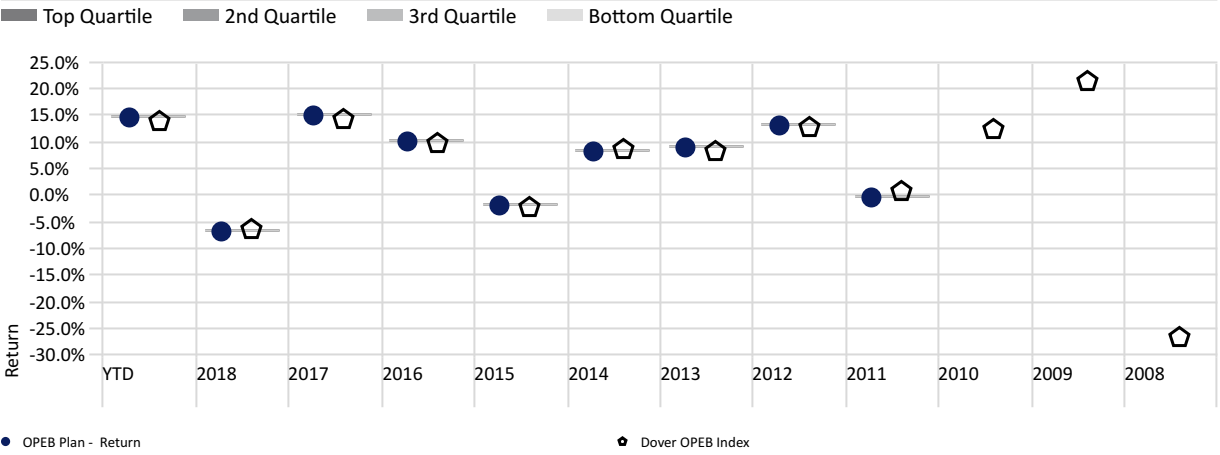


OPEB Plan - Return Dover OPEB Index

Source: Morningstar Direct

Performance Versus Benchmark

Peer Group (5-95%): Display Group Calculation Benchmark: Dover OPEB Index



As of Date: 9/30/2019 Calculation Benchmark: Dover OPEB Index

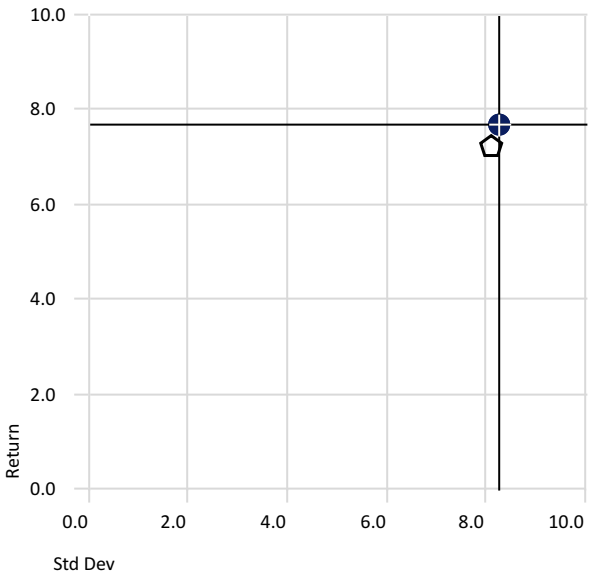
	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
OPEB Plan - Return	14.70	-6.62	15.24	10.36	-1.78	8.44	9.30	13.10	-0.36			
Dover OPEB Index	13.95	-6.40	14.39	9.81	-2.25	8.74	8.32	12.97	0.89	12.58	21.55	-26.42

Key Statistics

- Arithmetic Mean 1 Yr (Mo-End)
- Std Dev 1 Yr (Mo-End)
- Alpha 1 Yr (Mo-End)
- Sharpe Ratio 1 Yr (Mo-End)
- Arithmetic Mean 3 Yr (Mo-End)
- Std Dev 3 Yr (Mo-End)
- Alpha 3 Yr (Mo-End)
- Sharpe Ratio 3 Yr (Mo-End)
- Arithmetic Mean 5 Yr (Mo-End)
- Std Dev 5 Yr (Mo-End)
- Alpha 5 Yr (Mo-End)
- Sharpe Ratio 5 Yr (Mo-End)

Risk-Reward

Time Period: 10/1/2016 to 9/30/2019



INVESTMENT POLICY STATEMENT

CITY OF DOVER OPEB BOARD

August 2018

INVESTMENT POLICY STATEMENT

CITY OF DOVER OPEB PLAN

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I. PURPOSE & BACKGROUND

The City of Dover OPEB Plan is a post retirement employee benefit program established for the purpose of funding retiree health care benefits, but may optionally provide other benefits as provided for in the City Ordinances. The OPEB fund shall constitute a trust fund that shall be separate and distinct from all other funds, including the pension funds established by Article IV of Chapter 2 (General Employee Pension Plan) and Article III of Chapter 62 (OPEB Plan) of the City Ordinances (City Code).

The purpose of this Investment Policy Statement (“IPS”) is to assist the participants of the plan who serve as members of the OPEB Board of the City of Dover (“Board”) under Section 2-202 of the City of Dover Code of Ordinances, this Investment Policy Statement (“Statement”) presents investment objectives, policies, guidelines, and monitoring and review procedures relating to financial assets (the “Fund”) of the City of Dover OPEB Plan (“Plan”).

The IPS will function to:

1. State in a written document the Board’s expectations, objectives, and guidelines for the investment of Plan assets which the Board judges to be appropriate and prudent, in consideration of the needs of the Plan.
2. Define and assign the responsibilities for the oversight of the Plan’s assets.
3. Set forth an investment structure for managing Plan assets. This structure will help to define asset class, Investment Manager styles, asset allocation and acceptable ranges that, combined, will help to generate the risk/return profile needed to meet the objectives of this policy.
4. Encourage effective communication between the Board and the Investment Consultant, as well as any other interested parties.
5. Establish formalized performance criteria that the Investment Managers selected are expected to meet and against which they are to be measured on a regular basis.
6. Serve as a review document to guide Board and Investment Consultant oversight of the investment options of the Plan’s assets.
7. Establish the relevant investment time horizon, risk tolerances and performance expectations of the Plan assets and the Board.

II. STATEMENT OF OBJECTIVES

The assets of the Plan are invested under the supervision of the Board.

After reviewing expected short-term and long-term cash flow requirements of the plan, as well as considering the investment time horizon and risk tolerance level believed to be appropriate for the invested assets, the following set of objectives has been established:

1. Preservation of capital.
2. Pay all benefit and expense obligations when due.
3. Achieve a funding cushion to reduce the impact of possible future downturns in the plan's funded status.
4. Achieve or exceed actuarial earnings assumptions.
5. If applicable, effectively manage the funded status volatility and mitigate undue risk exposure under a Liability Driven Investment (LDI) strategy. The approach can assist in managing interest rate and inflationary risks.
6. Control risk exposure through reasonable and rational diversification of the assets into various asset classes.
7. Establish policies based on total return and expected projected payouts rather than current income.
8. Contain costs of administering and managing the portfolio.
9. Attain a funded status such that the employer has the option to discontinue contributions to the plan if deemed appropriate.

III. CONTROL PROCEDURES & RESPONSIBILITIES

Disclosure

Any member of the Board, Custodian/Directed Trustee or Investment Consultant must make full disclosure of any potential conflicts of interest, including any financial gain that may be received as a result of investment decisions made by those entities, which may be required by applicable law. This disclosure should be made before the investment of the plan assets governed by this Investment Policy Statement. Disclosure should be in written form and presented to the members of the Board.

Delegation of Authority and Responsibilities

The Board is charged under the City of Dover Code of Ordinances with overall responsibility for investment of the Fund. To assist the Board in this function, it is authorized and permitted by said Ordinances to appoint an Investment Advisor, Investment Manager or IM(s), including for this purpose banks, insurance companies, and firms registered under the Investment Advisers Act of 1940 and/or Delaware State law, to manage (including the power to acquire and dispose of) Plan assets. Any appointed Investment Advisor must agree to conduct itself in accordance with all applicable City of Dover Ordinances.

The Board shall be responsible for approving any changes to this Investment Policy Statement, and shall be responsible for reviewing the implementation of the Investment Policy Statement not less frequently than annually.

These responsibilities include, but are not limited to:

Board The Board will be responsible for establishing investment objectives, investment policy and monitoring and review procedures. The establishment of standards for measuring, monitoring, evaluating and comparing absolute and relative investment performance to assure that investment returns are reviewed on a regular basis and investment return objectives are met during acceptable periods of time. The establishment of authorization, reporting, control, review and general governance procedures to assure that investment policies and guidelines are reviewed on a regular basis and conformed to at all times. All modifications of policies and/or guidelines shall be in writing, signed by all Board members, and delivered on a timely basis to any IM and/or Custodian affected by such changes. The establishment of, through contractual relationships with recognized and carefully selected professional organizations, or by alternative means satisfactory to the Board, a retirement plan management structure which will assure appropriate investment management, custody, and surveillance or compliance procedures to meet investment objectives in conformity with the Board's stated investment policies and guidelines. The Board will have discretion to select, add, replace or remove Investment Managers that will be used to meet the Plan's investment objectives, consistent with the recommendations and advice of the Investment Consultant.

Investment Consultant The Investment Consultant will be responsible for: providing recommendations to the Board for the selection of Investment Managers and appropriate asset allocation, consistent with the Investment Policy Statement objectives and guidelines; reviewing the performance of such Investment Managers over time; periodically reviewing and providing recommendations to the Board for revisions to the Investment Policy Statement; and other tasks as deemed appropriate by the Board. The Investment Consultant will act in a non-discretionary capacity.

Custodian/Directed Trustee The Custodian/Directed Trustee appointed by the Board will be responsible for the safekeeping of the fund assets, including all transaction settlements and deliveries and will perform regular accounting of all assets owned, purchased or sold, as well as transactions and movement of assets into and out of the Plan account.

Fund safekeeping and securities settlement procedures shall include direct Custodian participation in one or more appropriate securities depositories (e.g., Depository Trust Company, New York) and, as necessary, correspondent participation in other major depositories (e.g., the Federal Reserve System). The Plan's beneficial ownership of all assets shall be inviolate and in all circumstances perfected. Board or designated IM authority to direct all investment transactions shall similarly be protected.

The Directed Trustee will maintain possession of securities owned by the Plan, collect dividend and interest payments, redeem maturing securities, and effect receipt and delivery following purchases and sales. The Directed Trustee will also be responsible for the payments to such persons and for such purposes in order to provide benefits to plan participants and the remittance of any tax related payments to the applicable State and Federal bodies.

Fiduciary insurance, and officer liability and omissions and errors insurance coverages, of any Custodian, must meet standards set by the Board from time to time.

Investment Manager(s)

The specific responsibilities of the Investment Manager(s) relating to the investment management of the fund include:

1. Managing the Plan assets under its care, custody, and/or control in accordance with their Investment Policy Statement ('IPS') or Prospectus objectives and guidelines set forth herein.
2. Exercising investment discretion (including holding cash equivalents as an alternative) within their IPS or Prospectus objective and guidelines set forth herein.
3. Promptly communicating all significant and/or material matters and changes pertaining to the investment of Plan assets, including, but not limited to:
 - i. Investment strategy.
 - ii. Portfolio structure.
 - iii. Tactical approaches.
 - iv. Ownership.
 - v. Organizational structure.

- vi. Financial condition.
 - vii. Professional staff.
 - viii. All legal material and SEC and other regulatory agency proceedings affecting the firm.
4. Promptly voting all proxies and related actions in a manner consistent with the long-term interests and objectives of the Plan set forth herein. Each manager shall keep detailed records of said voting and proxies and related actions and will comply with all regulatory obligations related thereto.
5. Utilize the same care, skill, prudence, and due diligence under the circumstances then prevailing that experienced, investment professionals acting in a like capacity and fully familiar with such matters would use in like activities for like benefit plans with like aims in accordance and compliance with all applicable laws, rules, and regulations from local, state, and federal political entities as the pertain to fiduciary duties and responsibilities.

The investments should be relatively liquid, or with a reasonable amount of notice, should be capable of liquidating to cash. There should be no fees or penalties for regular trading or liquidation.

IV. INVESTMENT AND ALLOCATION POLICY

Investment Horizon: The investment guidelines are based on the expectation that the investment horizon will be several years in length. Short-term variability in returns should be expected.

Because of this, the Plan's strategic asset allocation is established with moderate to long-term perspective in mind. The Plan is required to pay retirement benefits to participants as they come due. Therefore, sufficient liquid reserves must be available to satisfy this obligation.

1. The actuary will provide future benefit payment amounts, funding and contribution requirements.
2. The plan should hold a portion of assets in short-term and cash holdings to provide for the schedule of future benefit payments.

Risk Tolerances: It is understood by the Board that achieving the Plan's investment objectives is not guaranteed and there will be time periods for which these objectives will not be met. The Board also recognizes that some risk must be assumed to achieve the Plan's investment objectives and accepts the inevitable fluctuations in returns that will occur. While it is understood that a certain level of risk is expected in the Plan's portfolio, the ability to withstand short and intermediate term variability was specifically considered in the development of the IPS risk tolerances. Factors considered were:

1. It is the intention to fund at least the minimum required contribution (MRC) each year providing ample liquidity.
2. Due to the amount of payouts to occur for many years into the future, the Plan's liabilities exhibit a longer duration (sensitivity to changes in interest rates). As a result, extending durations in the fixed income portion of Plan assets should be considered.
3. The cash balance portion of the plan's liabilities grows at the rate of T-bill + 1%. Future liability growth will be factored into all investment decisions.

As a result of the above-named considerations, the Board believes that the Plan can tolerate some interim variability in market value and rates of return in order to achieve its long-term objectives.

Allowable Investments: Cash and Equivalents, Mutual Funds, Separate Accounts, Options and Futures Contracts, Stocks, Bonds, Commingled Funds, and Collective Trusts, Exchange Traded Funds (ETFs)

Liquidity Policy: The trust will be required to provide periodic distributions in the form of retirement benefit payments to participants. The actuary provides annual assessments of the funding requirements and payments necessary to meet the plans benefit obligations.

Overall Asset Allocation Policy

Based on the Plan's time horizon, risk tolerances, liquidity needs, and asset class preferences and constraints, an efficient or optimal portfolio was identified. This allocation shall be reviewed at least annually and modified as necessary to meet the needs of the Board.

[See Appendix A for the Strategic Asset Allocation Policy of the Plan.]

The current allocation strategy is dynamic in nature under a Liability Drive Investment (LDI) approach. The allocation shall be reviewed periodically, at least annually, and modified as necessary to de-risk the plan, based on the funded status. The overall performance of the portfolio relative to the liabilities will be reviewed in addition to actual performance of the managers.

Rebalancing: Rebalancing is the periodic adjustment of the portfolio to restore a pre-defined Target asset allocation, and will be reviewed at least once per calendar quarter, or as such when the allocation of any asset class exceeds the range around its respective target.

Change in Funding Target Level

Based on the asset allocation glidepath and funding target levels outlined in the Asset Allocation Policy, an increase in the Plan funding ratio that elevates the plan to a new increment level will trigger a rebalancing of Plan assets to the new targets. If the Plan funding ratio decreases and meets a lower target level, the plan will not rebalance to the new target asset allocation.

Timing

Rebalancing reviews generally take place quarterly, or at a frequency determined by appropriate by the Board. Generally, the rebalancing transactions will occur over a period of time to reduce undue market timing risk.

The Plan will diversify its investment portfolio to avoid incurring unreasonable risks. Investment maturities should be scheduled to coincide with projected cash flow requirements. As funded status improves, the asset allocation policy targets will reduce equity investments and increase fixed income investments and "de-risk" the plan portfolio.

V. INVESTMENT MANAGER GUIDELINES

Every Investment Manager selected to manage Plan assets shall be selected by their policy or ability to adhere to these general guidelines; however will have discretion to meet the investment objectives of their portfolio or investment fund. Unless receiving prior Board approval, the only allowable investments of the Plan will be in cash and equivalents, mutual funds, separate accounts, commingled funds, options and futures, stocks, bonds, exchange traded funds (ETFs) and collective trusts:

Cash Policy

Cash equivalents will be invested in an appropriate cash-like fund. Returns should be equal to or better than the 90-day Treasury Bill Index (3-month).

Money market mutual funds may be used, so long as these funds meet the high standards suitable for funds of this nature.

Fixed Income Policy

Investment Objectives

These assets are to be invested in a mutual fund, commingled funds, separate accounts, or collective trusts of high-grade index or active fixed income portfolio subject to the limitations set forth below. The investment objectives of the fixed income portion in order of importance are:

1. Preservation of capital
2. Provide for regular dividend and or interest payments
3. Stability of returns – obtain fairly consistent annual returns.

Investment Guidelines

The Plan's fixed income assets will be managed in accordance with the following:

1. All funds selected for the fixed income portion must have a readily ascertainable market value and must be readily marketable.
2. Investment Managers selected will be diversified and generally conform to industry guidelines.
3. The Investment Managers shall have discretion to invest a portion of the assets in cash reserves when they deem appropriate. However, the Investment Managers will be evaluated against their peers on the performance of the total funds under their direct management.

Equity Policy**Investment Objectives**

Equity assets are to be invested in mutual funds, commingled funds, separate accounts, stocks, bonds, options and futures, exchange traded funds (ETFs) or collective trusts. Within this framework, the investment objectives of the equity portion are:

1. Long Term Growth of Capital – Assets, exclusive of contribution and withdrawals, should grow in the long run and earn returns equal to the market while risk should be less than the market.
2. Follow a predefined market style (e.g. large cap vs. small cap, value vs. growth) strategy.

Investment Guidelines

The Plan's equity assets will be managed in accordance with the following:

1. All funds selected for the equity portion must have a readily ascertainable market value and must be readily marketable.
2. Investment Managers selected will be diversified and generally conform to industry guidelines.
3. The Investment Managers shall have discretion to invest a portion of the assets in cash reserves when they deem appropriate. However, the Fund Managers will be evaluated against their peers on the performance of the total funds under their direct management.

VI. SELECTION OF INVESTMENT MANAGERS

The Board, with the assistance of the Investment Consultant, will select appropriate Investment Managers to manage the Plan assets. Investment Managers must meet the following minimum criteria:

1. Is a bank, insurance company, investment management company, or investment advisor as defined by the Registered Investment Advisers Act of 1940.
2. Provide at a minimum, historical quarterly performance numbers calculated on a time-weighted basis, based on a composite of all the fully discretionary accounts of similar investment style, and reported net and gross of fees.
3. Provide performance evaluation reports prepared by an objective third party that illustrate the risk/return profile of the Investment Manager relative to other managers of like investment style.
4. Provide detailed information on the history of the firm, key personnel, key clients, fee schedule, and support personnel. This information can be supplied by a third party vendor comparable to Lipper or Morningstar.
5. Clearly articulate the investment strategy that will be followed and document that the strategy has been successfully adhered to over time.
6. Investment Managers will be ranked within the top 50 percent of their respective styles on the Investment Consultant's internal ranking program when available.
7. Some of the measures that may be included in the statistical analysis of a fund would be:
 - a. *Alpha* – a measure of fund performance compared to its expected return
 - b. *Beta* – the general level of influence a fund's market has over its performance
 - c. *Standard Deviation* – a measure of a fund's variation of returns over time
 - d. *Sharpe Ratio* – a measure of a fund's risk-adjusted return compared to its risk
 - e. *Duration* – a measure of sensitivity to interest rate fluctuations over time
8. The Board will consider replacing an actively managed fund if the rank versus its peer group remains in the bottom 50 percent for four consecutive quarters versus its peer group and if statistical analysis concludes that the fund's level of return does not provide an acceptable ratio as compared to its general level of risk.
9. The Board may consider a fund for replacement when the Investment Manager or policy of the fund is changed. In addition, if there are any substantial transactions with regard to the fund management company or holding, or other types of instabilities in the fund company, replacement will be considered.
10. The Board may also consider replacing a fund if its relative performance over a complete market cycle trails its benchmark.

VII. INVESTMENT EVALUATION

Not more than 90 days after the end of each calendar quarter, the Investment Consultant shall report investment positions and performance results to the Board, based on performance reported by each Fund Manager, to monitor and evaluate progress toward the attainment of longer-term targets.

The target rate of return for the Plan has been based on the assumption that future real returns will approximate the long-term rates of return experienced for each asset class in the IPS. The real rate of return is the return in excess of the anticipated rate of inflation as measured by the Consumer Price Index (CPI).

Total Plan Portfolio Performance: Over a complete business cycle, the Plan's overall annualized total return (net of expenses) should perform at or above the Plan Benchmark. The Plan Benchmark is a customized index composed of the following benchmarks for each target asset class and based on the current and prior target asset allocation policy for the Plan:

Asset Category	Index*
Cash & Money Market	BofA ML 3-month T-bill Total Return Index
Short-term Bond	Barclays US Govt/Credit 1-3 Yr TR USD
Inflation Protected Bond	Barclays US Treasury US TIPS TR USD
Intermediate-term Bond	Barclays US Govt 5-10 Yr TR USD
Long-term Bond	BC Long Government/Credit
High Yield Bond	BC High Yield Corporate Bond
Large Cap Value	S&P 500 Value
Large Cap Blend	S&P 500 Index
Large Cap Growth	S&P 500 Growth
Mid Cap Value	S&P 400 Value
Mid Cap Blend	S&P 400 Index
Mid Cap Growth	S&P 400 Growth
Small Cap Value	S&P 600 Value
Small Cap Blend	S&P 600 Index
Small Cap Growth	S&P 600 Growth
World Stock	MSCI AC World Index ND USD
Diversified Emerging Markets	FTSE Emerging NR USD
REIT/Real Estate	MSCI US REIT NR USD

**Or other index as designated by the fund and/or fund manager as an appropriate target benchmark for the investment portfolio or fund.*

Individual Investment Managers: During its periodic meetings but not less than annually, the Board will review the following specifics with regard to each Investment Manager:

1. The manager's adherence to their prospectus.
2. Material changes in the manager's organization, investment philosophy, and/or personnel.
3. Performance compared against an appropriate peer group and benchmark, as listed in the Executive Summary of this IPS, over various time periods.

The Board expects the following criteria to be met by each Investment Manager. If a manager fails to meet these, a further review of the manager will be warranted. The Board reserves the right to replace an Investment Manager at their discretion at any time.

1. The Investment Manager's rank (3-year and 5-year return) versus its peer group is over 50 (*where a percentile ranking of 1 would be the highest a fund could achieve and 100 would be the lowest*). If a fund or Investment Manager's rank (3-year and 5-year return) versus its peer group is over 50, the fund will warrant a closer analytic review. The Board's review will be comprised of a further analysis of the fund's statistical performance and risk measures.
2. The Investment Manager's risk over 3 to 5 years, as measured by standard deviation, should be equal to or lower than the comparative index. If the standard deviation is higher than the index, an increase in performance is expected.
3. The Investment Manager's Sharpe ratio should be positive over 3 to 5 years and ranked above the peer group median.
4. The Investment Manager's Alpha should be positive over a 3 to 5 year period and ranked above the peer group median.

SIGNATURE

This Statement of Investment Policy approved by action of the Board.

Approved by:

Chairman or representative of the Board

Controller/Treasurer

Date approved:

APPENDIX A

This Appendix to the Investment Policy Statement has been reviewed and approved by the Board:

STRATEGIC ASSET ALLOCATION POLICY (1)

Asset Class	Target
Cash & Short-Term Bond	9%
Non-traditional Bond	4.5%
Inflation-Protected Bond	4%
Intermediate Term Bond	4.5%
Long-Term Bond	4%
High Yield Bond	5%
Large Value	8%
Large Growth	11%
Mid Cap Equity	8%
Small Cap Value	7%
Small Cap Growth	4%
Foreign Equity	14%
Diversified Emerging Mkts	12%
Real Estate	5%
	100%

The above ranges will be considered the long-term or policy allocation. The current “Policy” is the Target for such respective Asset Class of investment. There will be a Range of +/- 5% to the Target to allow for modest market fluctuations before rebalancing of the portfolio. The portfolio will be reviewed at least quarterly and adjusted as necessary to maintain alignment with the target allocations. Any deviations beyond the “Range” must have prior approval by the Board, unless caused by market actions.

To indicate approval of this amendment to the Investment Policy Statement, the appropriate designated Board member shall sign below.

This Appendix to the Statement of Investment Policy approved by action of the Board.

Approved by: _____
Chairman or representative of the Board

Date approved: _____

Controller/Treasurer