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

FEBRUARY 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.

AGENDA ADDITIONS/DELETIONS

1. **ADOPTION OF MINUTES - JOINT GENERAL EMPLOYEE PENSION PLAN BOARD, POLICE PENSION PLAN RETIREMENT COMMITTEE, AND OTHER POST-EMPLOYMENT BENEFITS (OPEB) BOARD MEETING OF NOVEMBER 15, 2018**

2. **QUARTERLY PERFORMANCE REVIEWS (QUARTER ENDING DECEMBER 31, 2018) (MILLIMAN, INC.)**
   (STAFF RECOMMENDS ACCEPTANCE OF THE BELOW REPORTS)
   A. GENERAL EMPLOYEE PENSION PLAN
   B. POLICE PENSION PLAN
   C. OPEB PLAN

3. **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\02-14-2019 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.

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

A Joint Meeting of the General Employee Pension Plan Board, Police Pension Retirement Committee, and Other Post-Employment Benefits (OPEB) Board was held on November 15, 2018, at 9:01 a.m. with Mr. Gedney, Chair of the General Employee Pension Plan Board, presiding. Members present were Mr. Anderson, Mr. Cole, Mr. Gray, Mr. Mullaney, Mr. Rogers, Chief Mailey, Mrs. Mitchell, and Ms. Peddicord. Mr. Lewis, Mr. Lindell, Mr. Knotts, Mr. Swaggard, and Mrs. Hawkins were absent.

AGENDA ADDITIONS/DELETIONS

Mrs. Mitchell moved for approval of the agenda, seconded by Chief Mailey and unanimously carried.

ADOPTION OF MINUTES - SPECIAL JOINT GENERAL EMPLOYEE PENSION PLAN BOARD, POLICE PENSION RETIREMENT COMMITTEE, AND OTHER POST-EMPLOYMENT BENEFITS (OPEB) BOARD MEETING OF SEPTEMBER 20, 2018

Mrs. Mitchell moved for adoption of the minutes of the Special Joint General Employee Pension Plan Board, Police Pension Retirement Committee, and Other Post-Employment Benefits (OPEB) Board Meeting of September 20, 2018. The motion was seconded by Mr. Anderson and unanimously carried.

QUARTERLY PERFORMANCE REVIEWS (QUARTER ENDING SEPTEMBER 30, 2018) (MILLIMAN, INC.) - GENERAL EMPLOYEE PENSION PLAN, POLICE PENSION PLAN, AND OPEB PLAN

Mr. Jeff Marzinsky, Principal and Employee Benefits Consultant, Milliman, Inc., reviewed the Board Meeting Notes and Quarterly Investment Monitor - Summary Report for the Quarter Ending September 30, 2018 for the General Employee Pension Plan, Police Pension Plan, and Other Post-Employment Benefits (OPEB) Plan.

Mr. Marzinsky, referring to the Board Meeting Notes for the City of Dover Delaware Employee Pension Plan, advised that Milliman, Inc. is putting the Oppenheimer fund on watch, explaining that, due to some underperformance compared to other funds in its asset category, there was a little bit higher volatility or risk in the portfolio. Mr. Marzinsky stated that if they do not see improvements in the performance of the fund, they will come back with a recommended replacement. He noted a watch period could go from three (3) to five (5) quarters, if there is a significant decline they may recommend a replacement more quickly. Mr. Marzinsky noted that this would be the same for each of the plans.

Mr. Marzinsky noted that when Milliman, Inc. monitors index funds, they do not expect them to beat or trail the market significantly; they want them to be very close to what the market is doing.

In reference to all three (3) plans, Mr. Marzinsky stated that the Vanguard Emerging Markets Stock fund changed its benchmark and the index that it follows, which is why there are elevated numbers in the tracking error, which should start to go away in the near term.

Mrs. Mitchell moved for acceptance of the Quarterly Performance Review for the General Employee Pension Plan, seconded by Ms. Peddicord and unanimously carried.

Mr. Mullaney moved for acceptance of the Quarterly Performance Review for the Police Pension Plan, seconded by Mr. Gray and unanimously carried.

Mrs. Mitchell moved for acceptance of the Quarterly Performance Review for the OPEB Plan, seconded by Ms. Peddicord and unanimously carried.

Responding to Mr. Mullaney, Mrs. Mitchell stated they got the interim pension reports from the actuary a week or two (2) ago; however, they had not distributed them yet. She noted that the Police Pension Plan was currently 73.95% funded, and the General Employee Pension Plan was currently 68.46% funded. Mrs. Mitchell stated that the prior actuarial study reported that the Police Pension Plan was 69% funded, and the General Employee Pension Plan was 65% funded, so both had increased approximately 3% with the returns.

Responding to Mr. Mullaney, Mrs. Mitchell stated there were currently 47 active members in the Police Pension Plan. She noted that the actuarial report for the General Employee Pension Plan showed 210 active plan members and beneficiaries currently receiving benefits, 17 entitled but not yet receiving benefits, and 95 active plan members, for a total of 322. In response to Mr. Mullaney, Mrs. Mitchell indicated that there was a total of 331 members in 2016, with 205 active plan members and beneficiaries receiving benefits, 19 inactive members, and 107 active members.

Mr. Mullaney requested that the actuarial reports be sent to the professional board members. In response, Mrs. Mitchell stated that staff would post the reports on the Finance Department page of the City's website.

Mr. Anderson noted that members were anticipating interest rates increasing last year, and asked if there were any adjustments in the strategy due to interest rates. Responding, Mr. Marzinsky stated that adjustments were made during the last meeting to increase the cash exposure. He advised that this had been a gradual adjustment, explaining that each time they adjusted the allocation the last couple of years, they had reallocated funds from long bonds to an aggregate type of bond, and put more into cash.

Mr. Anderson moved for adjournment, seconded by Chief Mailey and unanimously carried.

Meeting adjourned at 9:30 a.m.

Robert Gedney
Chair, General Employee Pension Plan Board

RG/jt/dd

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 $39.3 million in assets, down from $43.8 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 (8.01%) net ((7.95%) gross) for the quarter, better than the Plan's benchmark index performance of (8.42%). For the year, the plan return was (6.20%) net, (5.96%) gross, in line with the plan's index performance of (6.07%).

City of Dover
General Employees Pension Plan
Quarterly Return Summary

Month End	BMV	Contribution	Withdrawls	Fees	Gain	EMV	CIVILIAN-NET RETURN	CIVILIAN-GROSS RETURN
1/31/2018	$ 41,271,068.53	$ 1,061,000.00	$ 329,005.68	$ 1,470.75	$ 1,109,611.05	$ 43,111,203.15	2.65%	2.67%
2/28/2018	$ 43,111,203.15	$ -	$ 357,691.70	$ 1,506.77	$ (1,453,594.48)	$ 41,298,410.20	-3.40%	-3.38%
3/31/2018	$ 41,298,410.20	$ 860,000.00	$ 329,005.68	$ 1,493.60	$ (143,916.62)	$ 41,683,994.30	-0.35%	-0.33%
4/30/2018	$ 41,683,994.30	$ -	$ 333,323.43	$ 1,479.57	$ (119,437.99)	$ 41,229,753.31	-0.29%	-0.27%
5/31/2018	$ 41,229,753.31	$ -	$ 333,267.93	$ 1,489.43	$ 552,841.81	$ 41,447,837.76	1.35%	1.37%
6/30/2018	$ 41,447,837.76	$ 1,860,000.00	$ 332,760.45	$ 1,489.09	$ (15,666.50)	$ 42,957,921.72	-0.04%	-0.02%
7/31/2018	$ 42,957,921.72	$ -	$ 332,760.45	$ 1,504.20	$ 881,338.82	$ 43,504,995.89	2.07%	2.09%
8/31/2018	$ 43,504,995.89	$ -	$ 340,424.68	$ 1,518.77	$ 400,905.14	$ 43,563,957.58	0.93%	0.95%
9/30/2018	$ 43,563,957.58	$ 919,000.00	$ 333,824.63	$ 1,548.34	$ (364,931.34)	$ 43,782,653.27	-0.84%	-0.82%
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%
		$ -	$ 1,011,978.05	$ 4,458.28	$ (3,458,721.09)	Quarterly Return	-8.01%	-7.95%
		$ 4,700,000.00	$ 4,034,042.68	$ 17,958.80	$ (2,611,571.20)	One Year Return	-6.20%	-5.96%

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	6.56%	CLOSED - no longer accepting contributions
Large Cap Growth	LCG	Vanguard Growth Index	4.44%	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	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	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 an adjustment 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. During the quarter, the Vanguard Growth Index was transferred from the Institutional Class to the Admiral Class. Vanguard made this change for any accounts with a balance less than the $5 million minimum.

f. The majority of plan investments have performance and rankings generally in line with their peer groups and benchmarks, as well as risk analytics that rank well to their peer groups. There are no recommended changes or adjustments to the current fund managers at this time.

   i. PGIM QMA Small Cap Value
      - During 2018, the fund trailed its benchmark by 596 bps, causing longer term returns to decline.
      - Return rank versus peers is still within top ½ of small cap value funds for three and 5-yr periods.
      - Risk-adjusted measures remain around peer group median over all time periods.
      - Recommendation: Begin to monitor fund for improvements in performance.

   ii. Oppenheimer International Growth
      - We continue to see underperformance with this fund. The fund trailed its benchmark by 263 bps for the quarter and 824 bps over 1 year.
      - Return rank versus peers has declined to the bottom quartile over 1 and 3 years, bottom 50% over 5 years.
      - Risk-adjusted measures alpha and Sharpe have declined to the bottom quartile over 3 years and bottom half over 5 years.
      - Recommendation: Continue to monitor the fund (since Nov 2018).

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.

Milliman provides a copy of its SEC Form ADV Part II to clients without charge upon request.

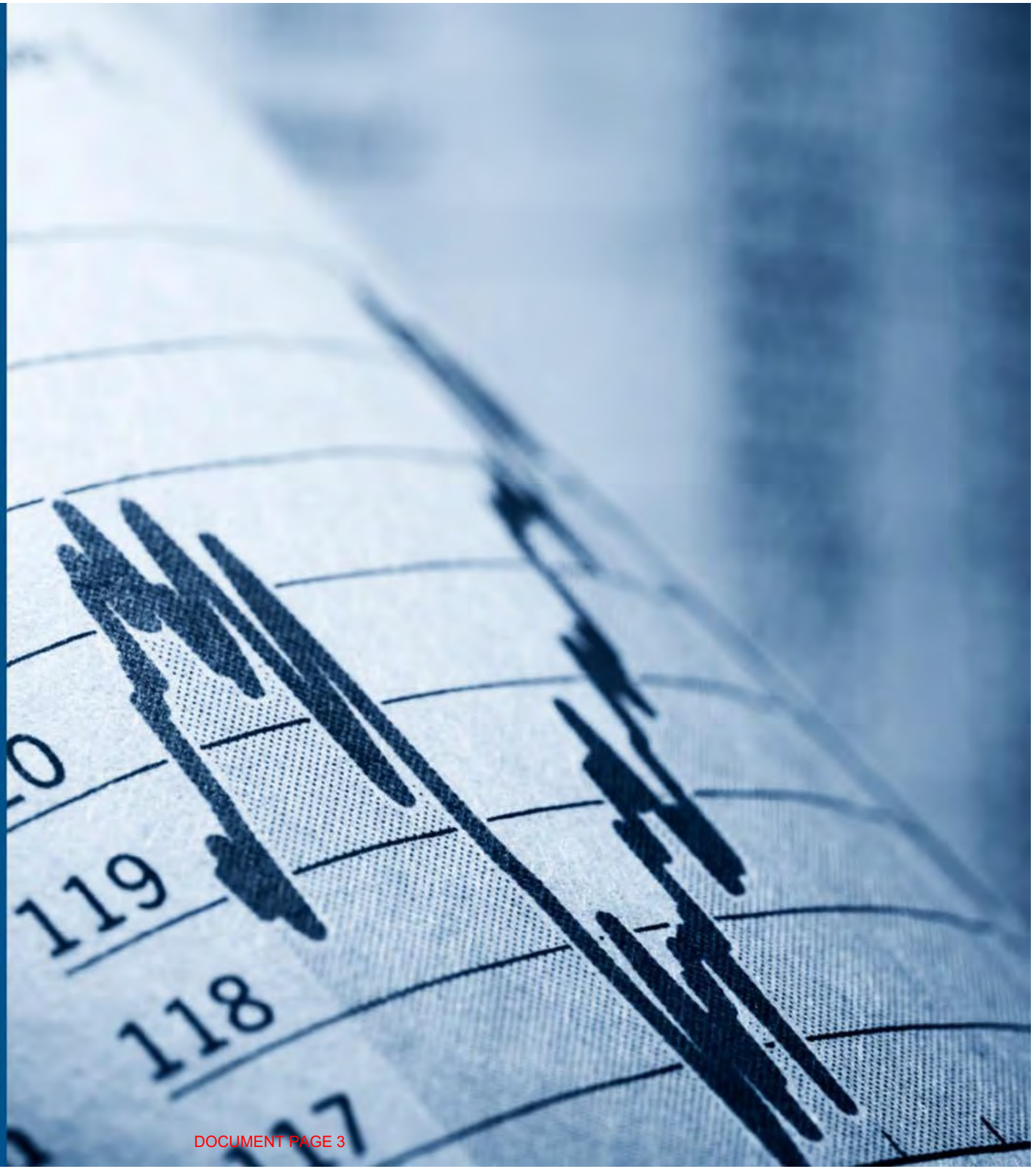
Advisory services provided by Milliman Advisors, LLC.

Quarterly Investment Monitor

Summary Report for the Quarter Ending December 31, 2018

Prepared for
City of Dover, Delaware General Employee Pension Plan

Milliman



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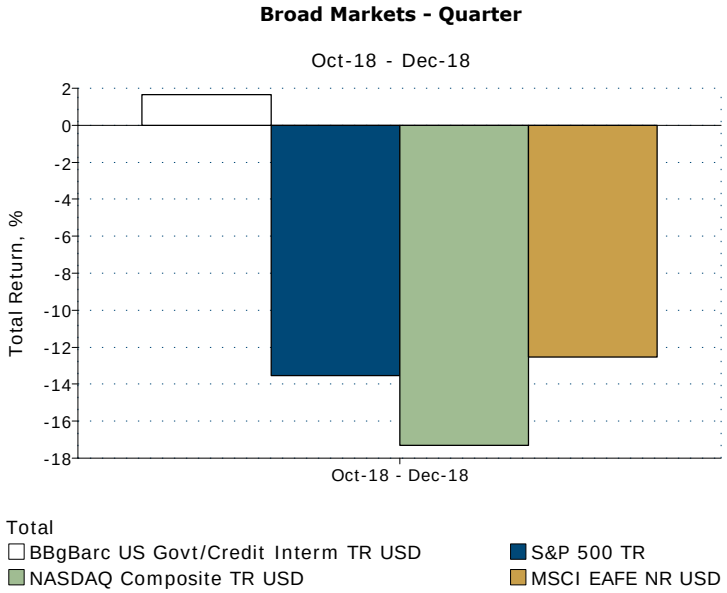
Milliman | Quarterly Investment Monitor

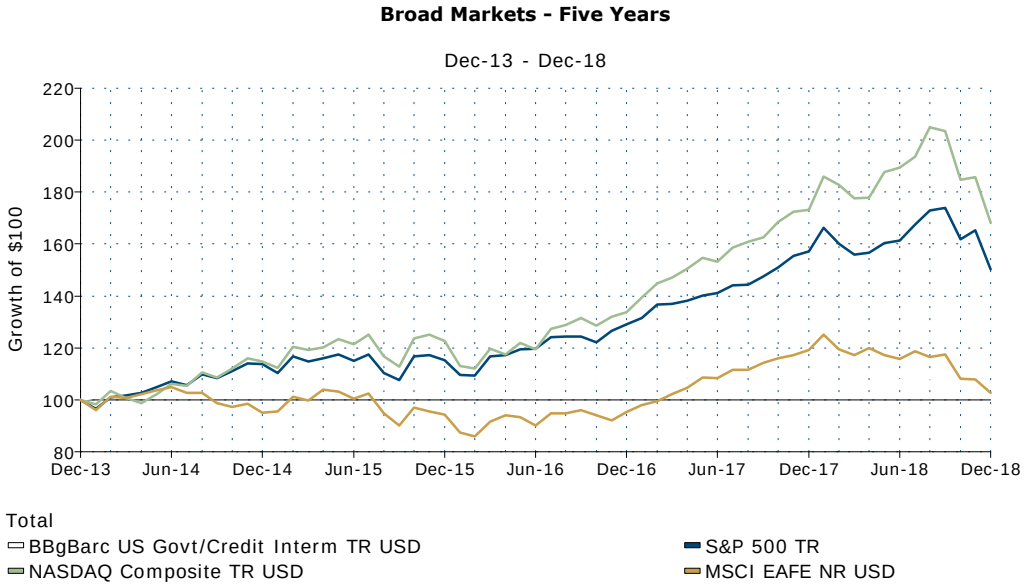
Market Indices - 4th Quarter 2018

Index	YTD	3 Months	6 Months	1 Year	3 Years	5 Years	10 Years
BofAML US Treasury Bill 3 Mon	1.87	0.56	1.06	1.87	1.02	0.63	0.37
BBgBarc US Govt 1-3 Yr TR USD	1.58	1.31	1.51	1.58	0.96	0.82	1.03
BBgBarc US Govt/Credit 1-3 Yr TR USD	1.60	1.18	1.52	1.60	1.24	1.03	1.52
BBgBarc US Treasury US TIPS TR USD	-1.26	-0.42	-1.24	-1.26	2.11	1.69	3.64
BBgBarc US Agg Float Adj TR USD	-0.08	1.58	1.62	-0.08	2.09	2.50	NA
BBgBarc US Govt/Credit Interm TR USD	0.88	1.65	1.87	0.88	1.70	1.86	2.90
BBgBarc US Government Long TR USD	-1.79	4.16	1.22	-1.79	2.63	5.90	4.15
BBgBarc US Long Credit TR USD	-6.76	-1.64	-0.40	-6.76	4.87	5.08	7.40
BBgBarc US Govt/Credit Long TR USD	-4.68	0.78	0.31	-4.68	4.03	5.37	5.88
BBgBarc US Corporate High Yield TR USD	-2.08	-4.53	-2.24	-2.08	7.23	3.83	11.12
DJ Industrial Average TR USD	-3.48	-11.31	-2.77	-3.48	12.94	9.70	13.16
S&P 500 TR	-4.38	-13.52	-6.85	-4.38	9.26	8.49	13.12
NASDAQ Composite TR USD	-2.84	-17.29	-11.16	-2.84	11.10	10.97	16.76
Russell 1000 Value TR USD	-8.27	-11.72	-6.69	-8.27	6.95	5.95	11.18
Russell 1000 TR USD	-4.78	-13.82	-7.42	-4.78	9.09	8.21	13.28
Russell 1000 Growth TR USD	-1.51	-15.89	-8.17	-1.51	11.15	10.40	15.29
Russell 2000 Value TR USD	-12.86	-18.67	-17.36	-12.86	7.37	3.61	10.40
Russell 2000 TR USD	-11.01	-20.20	-17.35	-11.01	7.36	4.41	11.97
Russell 2000 Growth TR USD	-9.31	-21.65	-17.33	-9.31	7.24	5.13	13.52
MSCI EAFE NR USD	-13.79	-12.54	-11.35	-13.79	2.87	0.53	6.32
MSCI EAFE Small Cap NR USD	-17.89	-16.05	-16.79	-17.89	3.73	3.06	10.51
MSCI EM NR USD	-14.58	-7.47	-8.49	-14.58	9.25	1.65	8.02
FTSE NAREIT All REITs TR	-4.10	-6.11	-5.15	-4.10	4.62	8.29	12.41

Milliman | Quarterly Investment Monitor

Broad Market Commentary - 4th Quarter 2018





Market Commentary

- Market volatility rose during the quarter amid a tightening US monetary policy and uncertainties in international markets.
- U.S. stocks ended the fourth quarter with the Dow down (11.31%) and the S&P 500 down (13.52%). For the year, the Down and S& P 500 are down (3.48%) and (4.38%), respectively.
- International markets declined sharply as trade war tensions continued into the fourth quarter. The MSCI EAFE, MSCI EAFE Small Cap and the MSCI EM finished the quarter down (12.54%).
- The Federal Reserve adjusted the benchmark rate again to a target of 2.25-2.50%, it was the fourth adjustment for the year. The Fed indicated that they may slow the pace of future adjustments in 2019 based on their assessment of economic conditions.
- Unemployment rose slightly to 3.9% 419,000 workers entered the workforce.
- The price of oil dropped steeply from $76, its high for the year, to $45 a barrel during the quarter.

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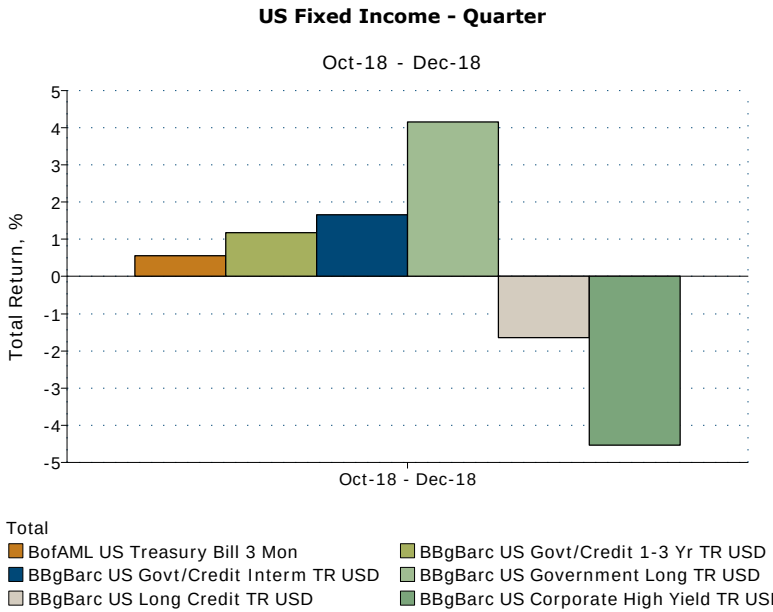
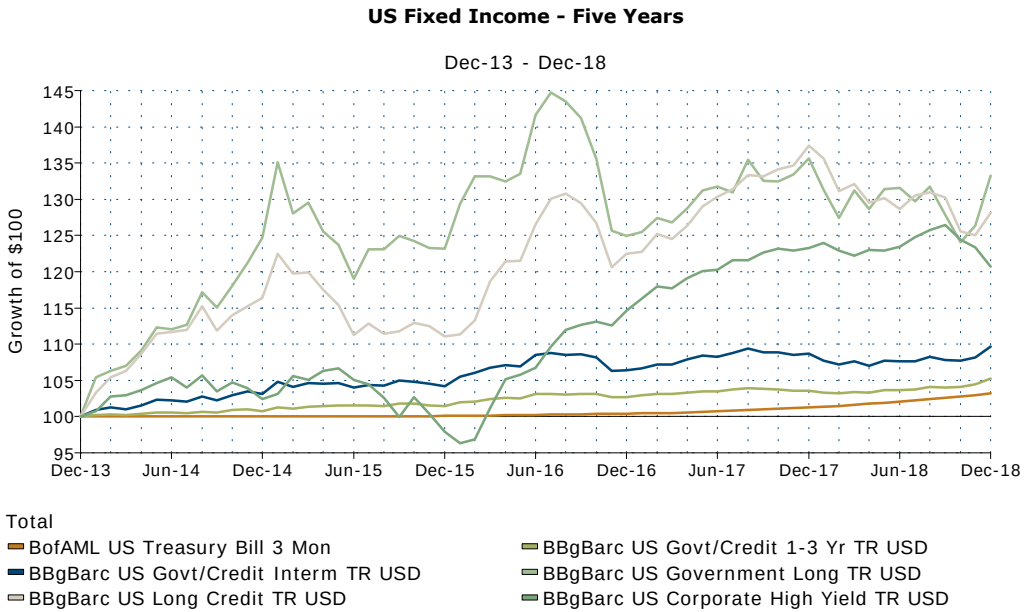
US Fixed Income Market Commentary - 4th Quarter 2018



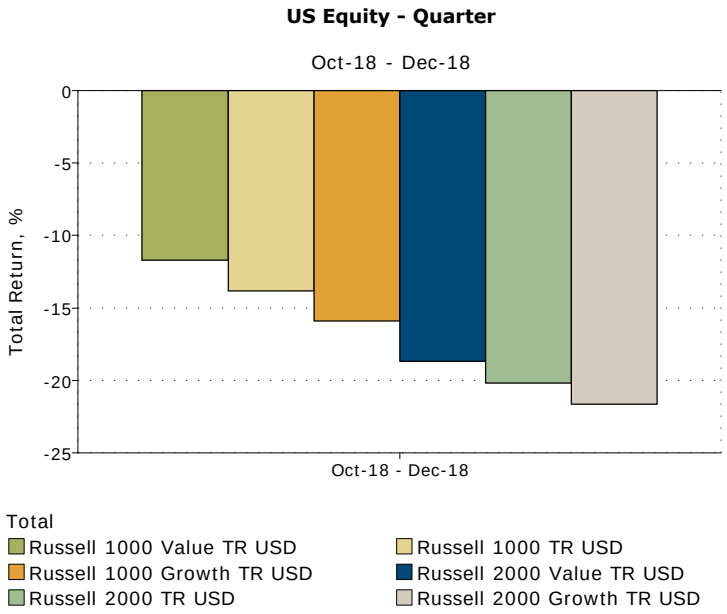


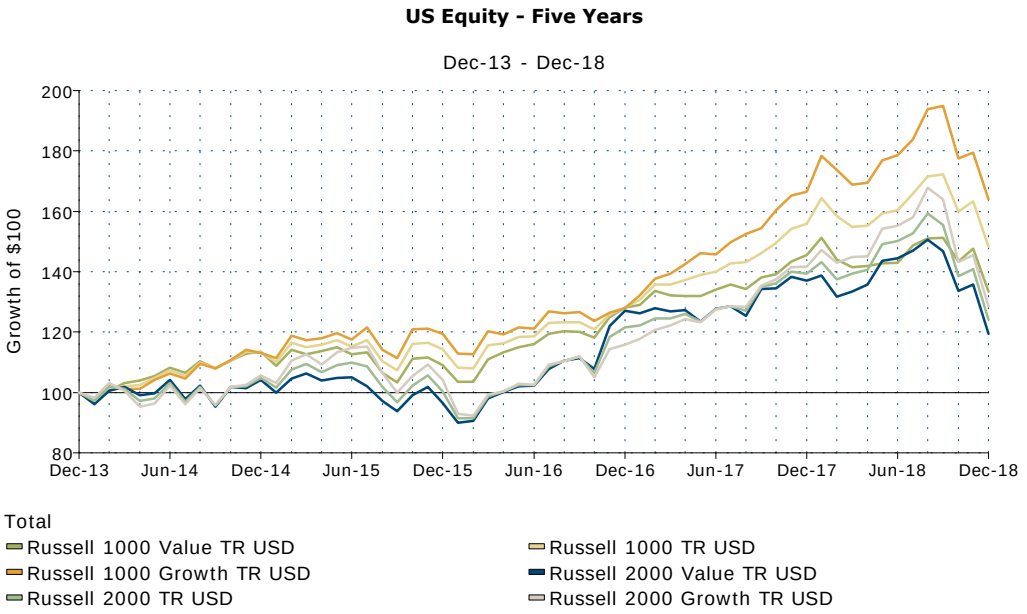
US Bond Market

- The Fed adjusted the benchmark rate again to a target of 2.25-2.50%.
- The yield curve continued to flattened over the quarter. By the end of the quarter, the yield on 30-year treasuries was less than 60 basis ponts higher than the yield on the 1-month treasury.
- Core PCE remained level at the Fed's 2% target.
- Fixed income investments experienced mostly positive returns for the quarter and the year.
- TIPS and longer-term issues experienced negative returns.

Milliman | Quarterly Investment Monitor

US Equity Market Commentary - 4th Quarter 2018



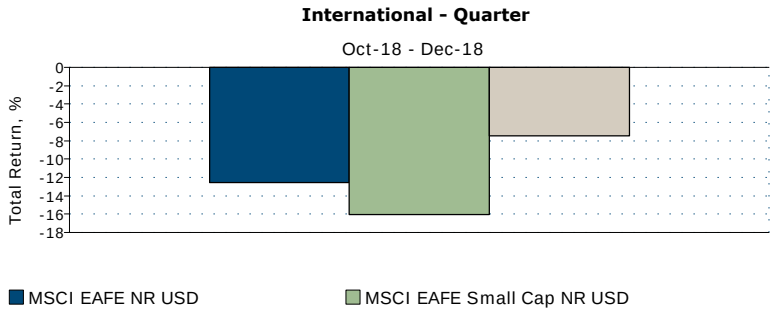


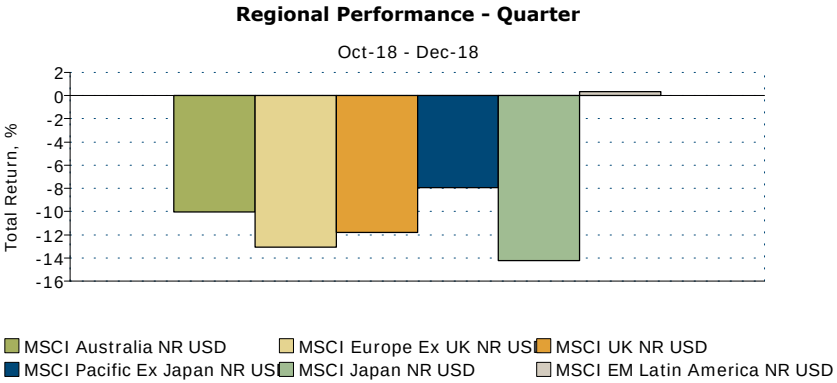
US Stock Market

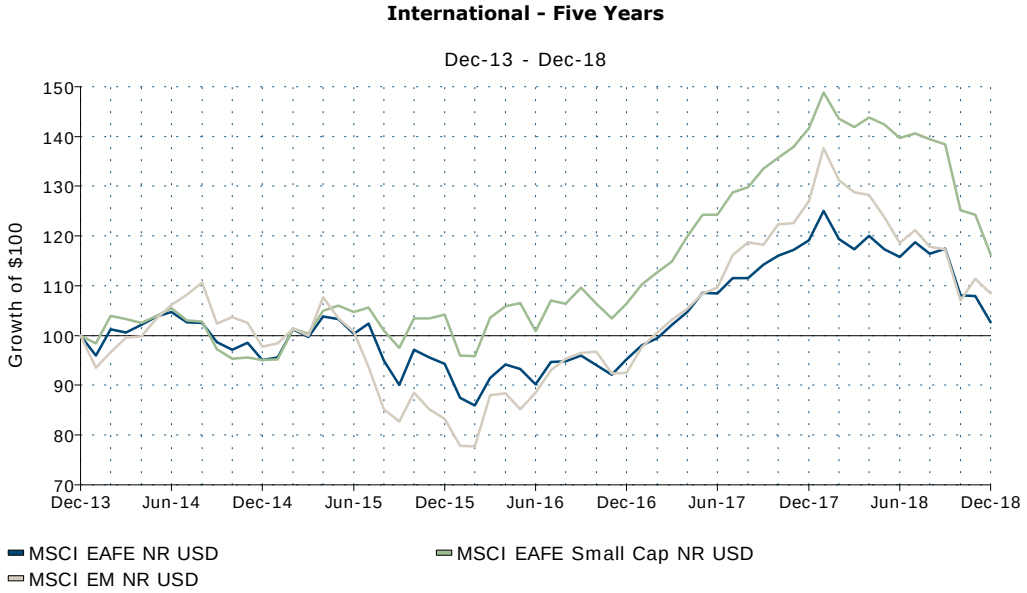
- Domestic markets heightened volatility over the quarter. The S&P 500 and Dow finished the quarter down, (13.52%) and (11.31%), respectively. For the year, the Dow was down (3.48%) and the S&P 500 fell (4.38%).
- Large, mid and small cap growth stocks declined more than value, with the Russell 1000, Russell Midcap Growth, and Russell 2000 Growth benchmarks falling more sharply than their value counterparts during the quarter. However, growth fared better than value for the year.
- REITs also fell during the quarter.

Milliman | Quarterly Investment Monitor

International Market Commentary - 4th Quarter 2018







International Markets

- Global markets returns also declined during the quarter. The MSCI EAFE posted a (12.54%) decline, while MSCI EM index fell (7.47%). For the year, The MSCI EAFE was down (13.79%) and the MSCI EM ended down (14.58%).
- Small-cap international stocks also fell, the MSCI Small Cap posted a return of (16.05%) for the quarter and (17.89%) for the year.
- Trade war tensions and uncertainties regarding Britain's exit from the European Union impacted global market returns during the quarter.

Performance Summary

Asset Allocation

	Balances As of 12/31/2018	Percent As of 12/31/2018	Balances As of 09/30/2018	Percent As of 09/30/2018	Notes
Wells Fargo Treasury Plus MMkt Inst	$2,345,093	5.97%	$1,867,773	4.43%	PISXX
Vanguard Short-Term Bond Index Adm	$1,970,182	5.01%	$2,141,942	5.08%	VBIRX
Vanguard Inflation-Protected Secs I	$1,988,376	5.06%	$2,137,910	5.07%	VIPIX
Vanguard Interm-Term Bond Index Adm	$1,580,015	4.02%	$1,719,309	4.08%	VBILX
Columbia Strategic Income Inst3	$1,559,590	3.97%	$1,712,036	4.06%	CPHUX
Vanguard Long-Term Bond Index Instl	$986,005	2.51%	$1,071,920	2.54%	VBLLX
PIMCO Long Duration Total Return Instl	$983,322	2.50%	$1,070,022	2.54%	PLRIX
PGIM High Yield R6	$1,931,392	4.91%	$2,152,236	5.10%	PHYQX
Vanguard Equity-Income Adm	$3,335,598	8.49%	$3,428,457	8.13%	VEIRX
Vanguard PRIMECAP Core Inv	$2,761,612	7.03%	$3,230,047	7.66%	VPCCX
Vanguard Growth Index Admiral	$1,704,499	4.34%	$0	0.00%	VIGAX
Vanguard Growth Index Institutional	$0	0.00%	$1,501,655	3.56%	VIGIX
Vanguard Mid-Cap Value Index Admiral	$1,523,915	3.88%	$1,714,867	4.07%	VMVAX
Vanguard Mid Cap Index Admiral	$1,533,676	3.90%	$1,715,270	4.07%	VIMAX
PGIM QMA Small-Cap Value R6	$1,522,838	3.87%	$1,710,590	4.06%	TSVQX
Federated Kaufmann Small Cap Instl	$1,554,310	3.95%	$1,712,036	4.06%	FKAIX
Oppenheimer International Growth I	$2,723,422	6.93%	$2,956,439	7.01%	OIGIX
American Funds New Perspective R6	$2,713,418	6.90%	$2,983,071	7.07%	RNPGX
Vanguard Emerging Mkts Stock Idx Instl	$4,711,436	11.99%	$5,137,537	12.18%	VEMIX
Vanguard Real Estate Index Institutional	$1,881,967	4.79%	$2,205,136	5.23%	VGSNX
Plan Total	**$39,310,667**		**$42,168,254**		

Investment Policy Review - Active Management

Fund Name	Return Rank 3Y	Return Rank 5Y	Excess Return 3Y	Excess Return 5Y	Relative StdDev 3Y	Relative StdDev 5Y	Alpha Rank 3Y	Sharpe Rank 3Y	Alpha Rank 5Y	Sharpe Rank 5Y
Vanguard Inflation-Protected Secs I	26	12	-0.08	-0.01	1.04	1.03	43	30	14	13
Columbia Strategic Income Inst3	15	7	1.87	2.58	0.61	0.73	23	26	8	15
PIMCO Long Duration Total Return Instl	11	11	1.10	0.59	0.99	0.99	44	56	44	44
PGIM High Yield R6	8	3	-0.07	0.44	0.95	0.93	18	12	14	14
Vanguard Equity-Income Adm	14	7	1.73	1.65	0.90	0.94	12	9	8	5
Vanguard PRIMECAP Core Inv	4	1	1.35	1.82	1.18	1.11	13	11	2	1
PGIM QMA Small-Cap Value R6	41	46	-2.38	-0.93	1.10	1.07	59	50	50	48
Federated Kaufmann Small Cap Instl	1	1	9.24	6.74	1.04	1.03	1	1	1	1
Oppenheimer International Growth I	87	66	-2.96	-2.14	1.07	1.05	88	87	68	64
American Funds New Perspective R6	18	9	1.06	2.16	1.07	1.02	25	21	9	8

Definitions

Return Rank - Fund's category percentile return rank, a value less than 50 (1 is the best and 100 is the worst) implies the fund is beating more than 50% of its peer group.

Excess Return - Fund's excess return over its benchmark, a value greater than 0 implies the fund's return is higher than its benchmark.

Relative StdDev - Fund's standard deviation relative to its benchmark, a value less than 1 implies the fund's standard deviation is lower than its benchmark.

Alpha Rank - Fund's category percentile Alpha rank, a value less than 50 (1 is the best and 100 is the worst) implies the fund is beating more than 50% of its peer group.

Sharpe Rank - Fund's category percentile Sharpe Ratio rank, a value less than 50 (1 is the best and 100 is the worst) implies the fund is beating more than 50% of its peer group.

Investment Policy Review - Passive Management

Fund Name	Excess Return 3Y	Excess Return 5Y	Beta 3Y	Tracking Error 3Y	Beta 5Y	Tracking Error 5Y	Expense Ratio
Vanguard Short-Term Bond Index Adm	-0.07	-0.08	1.01	0.14	1.02	0.15	0.07
Vanguard Interm-Term Bond Index Adm	-0.12	-0.06	1.01	0.27	1.02	0.34	0.07
Vanguard Long-Term Bond Index Instl	0.10	0.14	1.01	0.59	1.03	0.78	0.05
Vanguard Growth Index Admiral	-0.03	-0.05	1.00	0.03	1.00	0.03	0.05
Vanguard Mid-Cap Value Index Admiral	-0.03	-0.04	1.00	0.04	1.00	0.04	0.07
Vanguard Mid Cap Index Admiral	-0.02	-0.04	1.00	0.02	1.00	0.02	0.05
Vanguard Emerging Mkts Stock Idx Instl	0.67	-0.44	0.98	1.83	0.99	2.06	0.11
Vanguard Real Estate Index Institutional	-0.57	-0.39	0.99	0.54	0.99	0.42	0.10

Definitions

Excess Return - Fund's excess return over its benchmark, a value greater than 0 implies the fund's return is higher than its benchmark.

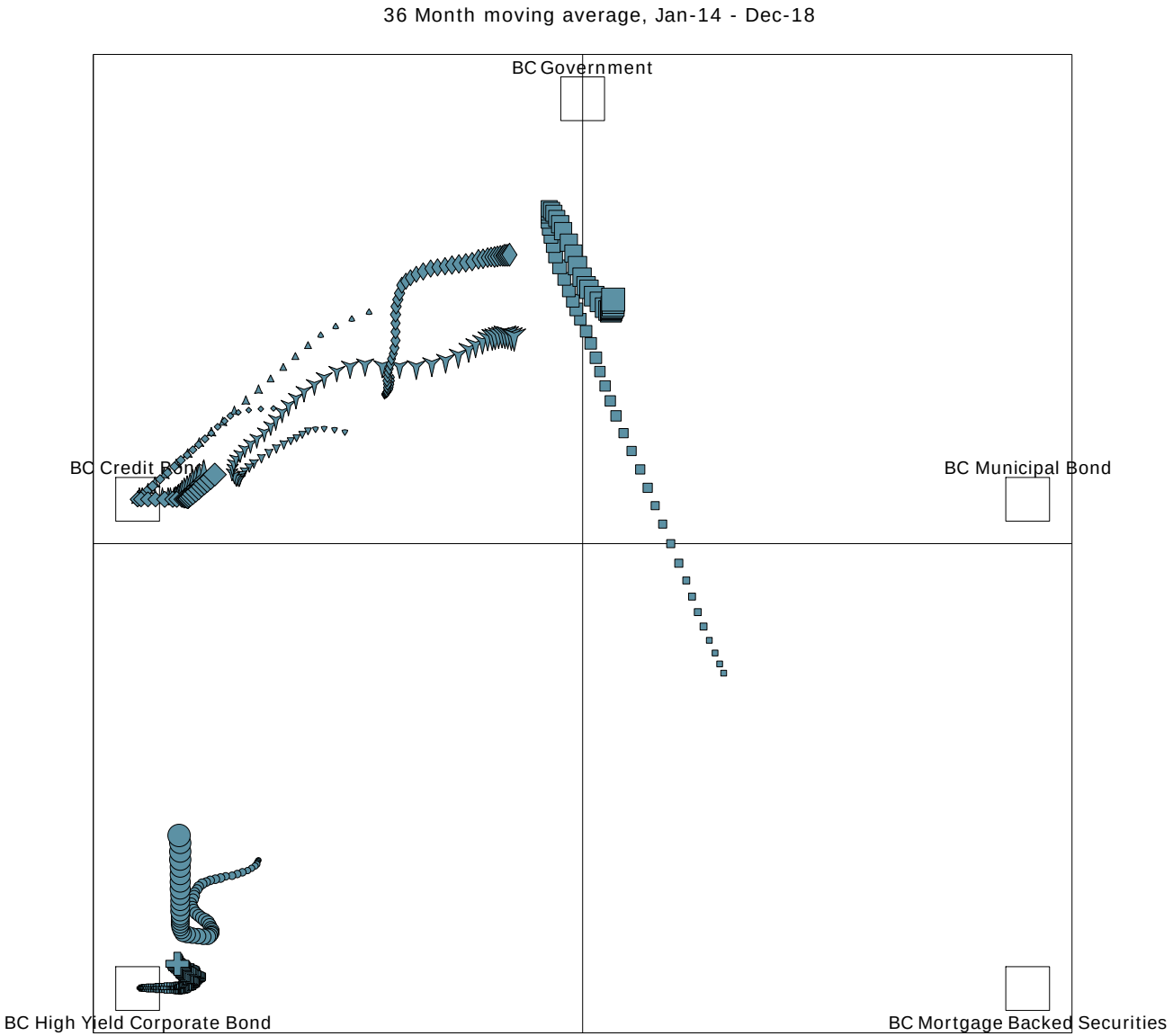
Beta - Fund's Beta or sensitivity to movements compared to its benchmark, a value of 1 implies its moving in sync with its benchmark.

Tracking Error - Fund's Tracking Error versus its benchmark, a value of 0 implies the Fund's ups and downs are the same size as its benchmark.

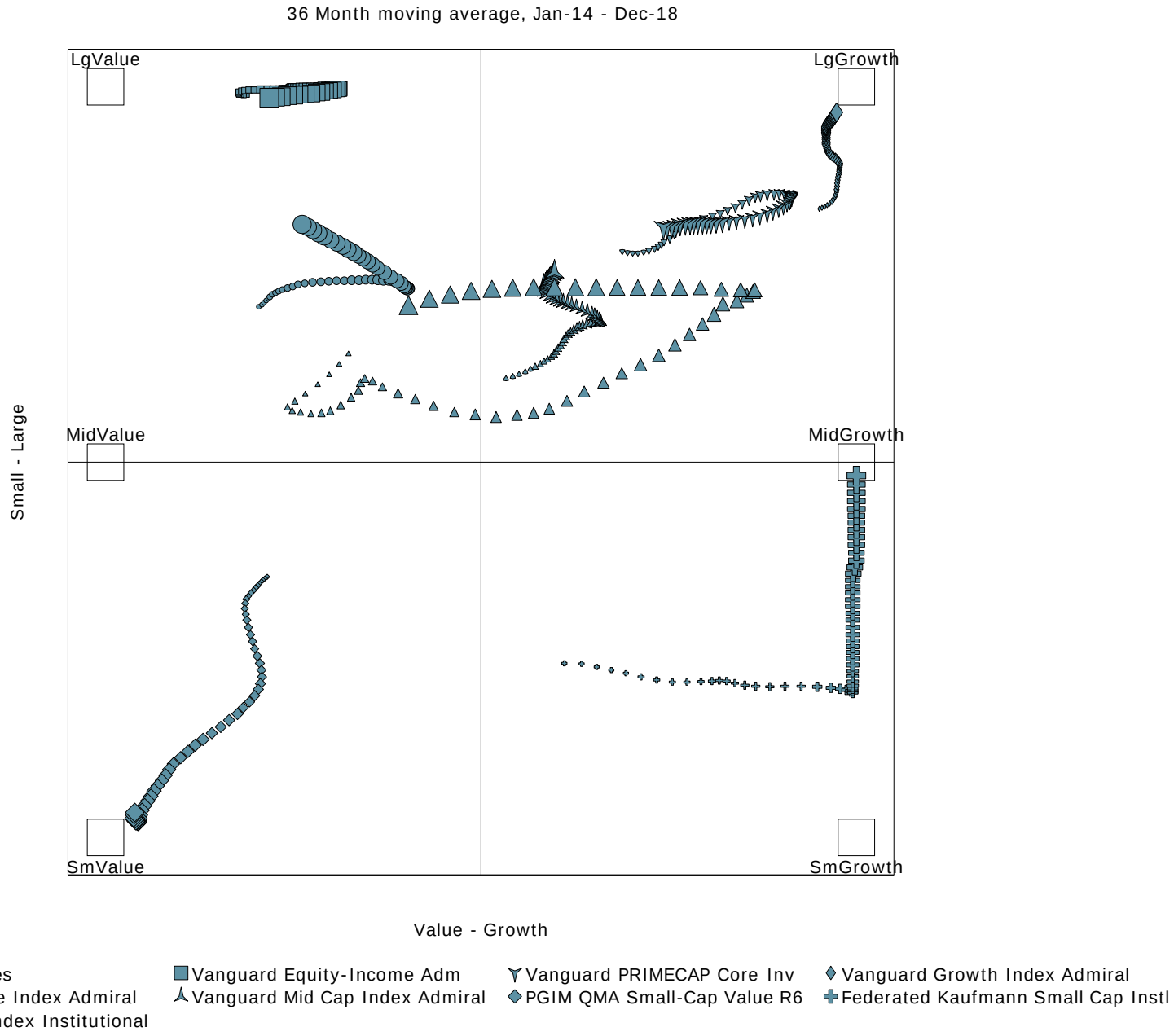
Investment Option Return Summary

Asset Class	Fund Name	3 Months	YTD	1 Year	3 Years	5 Years	10 Years	Ticker	Mstar Rating	Expense Ratio
Money Market-Taxable	Wells Fargo Treasury Plus MMkt Inst	0.53	1.68	1.68	0.86	0.52	0.27	PISXX	NA	0.20
	ICE BofAML 91-day Tbill Auction Avg	*0.56*	*1.87*	*1.87*	*1.02*	*0.63*	*0.37*	*N/A*	*NA*	*NA*
Short-term Bond	Vanguard Short-Term Bond Index Adm	1.44	1.35	1.35	1.34	1.24	1.98	VBIRX	3.00	0.07
	BBgBarc US 1-5Y GovCredit FlAdj TR USD	*1.46*	*1.38*	*1.38*	*1.40*	*1.32*	*NA*	*N/A*	*NA*	*NA*
Inflation-Protected Bond	Vanguard Inflation-Protected Secs I	(0.46)	(1.40)	(1.40)	2.04	1.68	3.55	VIPIX	4.00	0.07
	BBgBarc US Treasury US TIPS TR USD	*(0.42)*	*(1.26)*	*(1.26)*	*2.11*	*1.69*	*3.64*	*N/A*	*NA*	*NA*
Intermediate-term Bond	Vanguard Interm-Term Bond Index Adm	1.95	(0.17)	(0.17)	2.15	2.92	4.45	VBILX	3.00	0.07
	BBgBarc US 5-10Y GovCredit FlAdj TR USD	*2.04*	*(0.07)*	*(0.07)*	*2.27*	*2.98*	*NA*	*N/A*	*NA*	*NA*
Nontraditional Bond	Columbia Strategic Income Inst3	(1.18)	(0.64)	(0.64)	4.57	3.66	6.38	CPHUX	5.00	0.61
	BBgBarc Global Aggregate TR USD	*1.20*	*(1.20)*	*(1.20)*	*2.70*	*1.08*	*2.49*	*N/A*	*NA*	*NA*
Long-term Bond	Vanguard Long-Term Bond Index Instl	1.11	(4.41)	(4.41)	4.12	5.51	5.92	VBLLX	3.00	0.05
Long-term Bond	PIMCO Long Duration Total Return Instl	0.69	(3.86)	(3.86)	5.13	5.95	6.53	PLRIX	4.00	1.00
	BB Long Government/Credit	*0.78*	*(4.68)*	*(4.68)*	*4.03*	*5.37*	*5.88*	*N/A*	*NA*	*NA*
High Yield Bond	PGIM High Yield R6	(4.14)	(1.18)	(1.18)	7.16	4.28	10.20	PHYQX	5.00	0.42
	BB High Yield Corporate Bond	*(4.53)*	*(2.08)*	*(2.08)*	*7.23*	*3.83*	*11.12*	*N/A*	*NA*	*NA*
Large Value	Vanguard Equity-Income Adm	(9.36)	(5.65)	(5.65)	8.68	7.60	12.27	VEIRX	4.00	0.17
	Russell 1000 Value Index	*(11.72)*	*(8.27)*	*(8.27)*	*6.95*	*5.95*	*11.18*	*N/A*	*NA*	*NA*
Large Blend	Vanguard PRIMECAP Core Inv	(14.50)	(4.90)	(4.90)	10.48	10.18	14.73	VPCCX	5.00	0.46
	MSCI US Prime Market 750 GR USD	*(13.75)*	*(4.61)*	*(4.61)*	*9.13*	*8.36*	*13.26*	*N/A*	*NA*	*NA*
Large Growth	Vanguard Growth Index Admiral	(16.30)	(3.34)	(3.34)	9.45	9.00	14.52	VIGAX	4.00	0.05
	CRSP US Large Cap Growth TR USD	*(16.32)*	*(3.34)*	*(3.34)*	*9.47*	*9.05*	*NA*	*N/A*	*NA*	*NA*
Mid-Cap Value	Vanguard Mid-Cap Value Index Admiral	(15.06)	(12.42)	(12.42)	5.71	5.75	13.45	VMVAX	4.00	0.07
	CRSP US Mid Cap Value TR USD	*(15.06)*	*(12.42)*	*(12.42)*	*5.75*	*5.79*	*NA*	*N/A*	*NA*	*NA*
Mid-Cap Blend	Vanguard Mid Cap Index Admiral	(15.46)	(9.23)	(9.23)	6.38	6.21	13.87	VIMAX	4.00	0.05
	CRSP US Mid Cap TR USD	*(15.46)*	*(9.22)*	*(9.22)*	*6.40*	*6.24*	*NA*	*N/A*	*NA*	*NA*
Small Value	PGIM QMA Small-Cap Value R6	(20.13)	(18.82)	(18.82)	5.00	2.67	10.68	TSVQX	3.00	0.63
	Russell 2000 Value Index	*(18.67)*	*(12.86)*	*(12.86)*	*7.37*	*3.61*	*10.40*	*N/A*	*NA*	*NA*
Small Growth	Federated Kaufmann Small Cap Instl	(15.90)	7.40	7.40	16.48	11.88	16.49	FKAIX	5.00	0.91
	Russell 2000 Growth TR USD	*(21.65)*	*(9.31)*	*(9.31)*	*7.24*	*5.13*	*13.52*	*N/A*	*NA*	*NA*
Foreign Large Growth	Oppenheimer International Growth I	(14.63)	(19.22)	(19.22)	0.26	(0.54)	8.10	OIGIX	2.00	0.69
	MSCI EAFE Large Growth NR USD	*(12.00)*	*(10.98)*	*(10.98)*	*3.22*	*1.60*	*6.94*	*N/A*	*NA*	*NA*
World Large Stock	American Funds New Perspective R6	(13.15)	(5.56)	(5.56)	7.66	6.42	11.76	RNPGX	4.00	0.45
	MSCI AC World Index ND USD	*(12.75)*	*(9.42)*	*(9.42)*	*6.60*	*4.26*	*9.46*	*N/A*	*NA*	*NA*
Diversified Emerging Mkts	Vanguard Emerging Mkts Stock Idx Instl	(6.30)	(14.54)	(14.54)	7.88	1.36	7.52	VEMIX	3.00	0.11
	FTSE EMs AC China A Incl (US RIC) NR USD	*(6.43)*	*(14.77)*	*(14.77)*	*7.21*	*1.80*	*8.30*	*N/A*	*NA*	*NA*
Real Estate	Vanguard Real Estate Index Institutional	(6.46)	(5.93)	(5.93)	2.31	7.41	12.07	VGSNX	3.00	0.10
	MSCI US REIT GR USD	*(6.72)*	*(4.57)*	*(4.57)*	*2.88*	*7.80*	*12.17*	*N/A*	*NA*	*NA*
Total Plan	CIVILIAN-GROSS RETURN	(7.95)	(5.96)	(5.96)	6.30	5.32	7.98	N/A	NA	NA
Total Plan	CIVILIAN-NET RETURN	(8.01)	(6.20)	(6.20)	6.01	5.04	7.63	N/A	NA	NA
	Employee Plan Policy Index	*(8.42)*	*(6.07)*	*(6.07)*	*6.11*	*4.92*	*8.00*	*N/A*	*NA*	*NA*

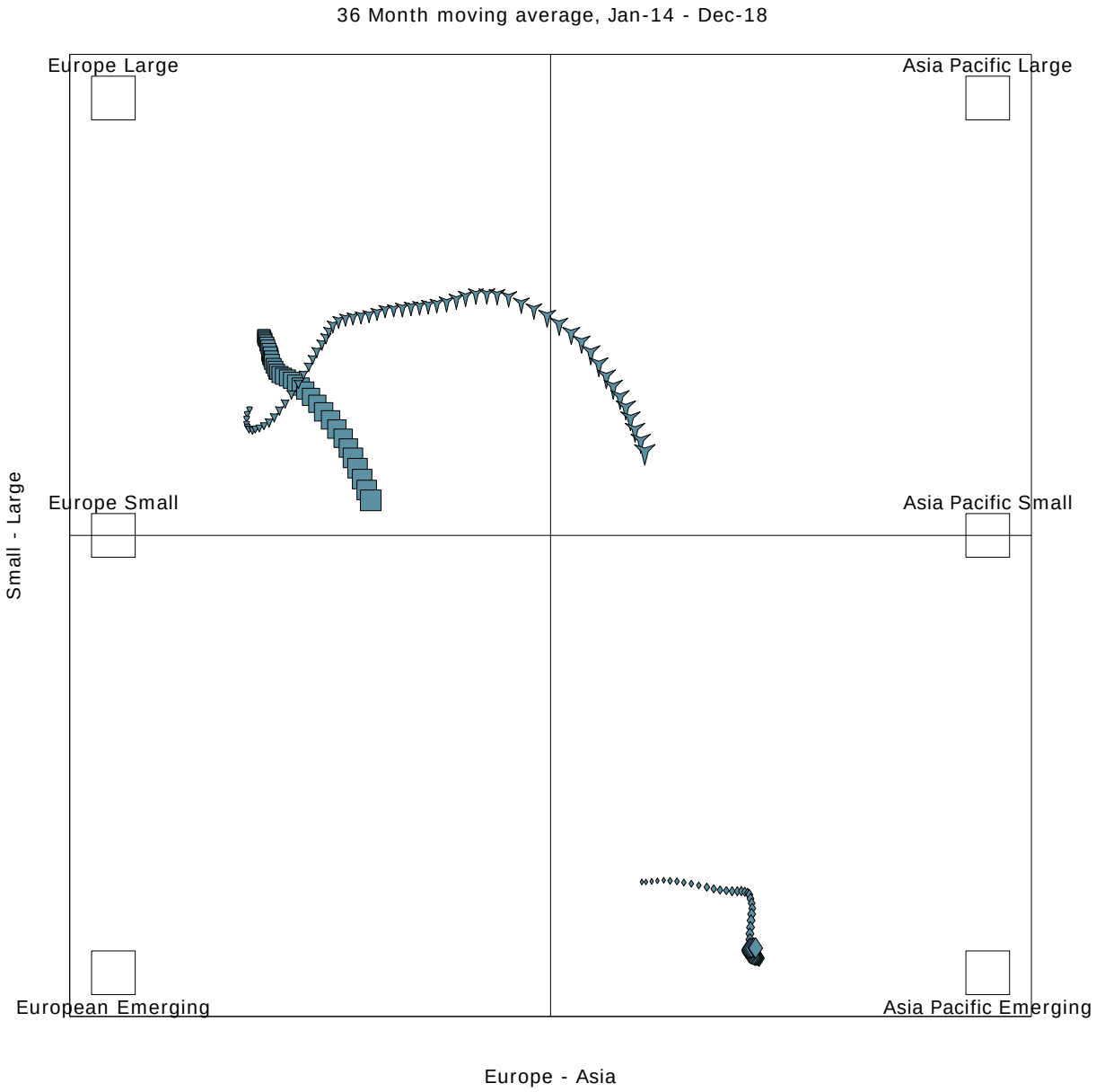
U.S. Fixed Income Style Map



U.S. Equity Style Map



International Equity Style Map



Core Fund Review

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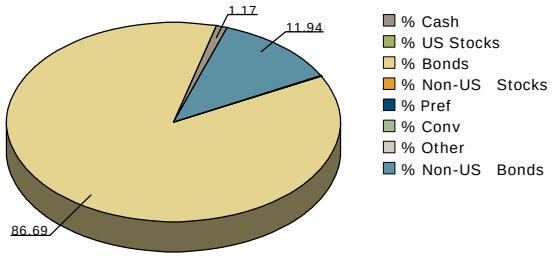
Data as of 12/31/2018

Vanguard Short-Term Bond Index Adm



Portfolio Region	
% United States	NA
% Canada	NA
% Latin America	NA
% United Kingdom	NA
% Eurozone	NA
% Europe - ex Euro	NA
% Europe - Emerging	NA
% Africa	NA
% Middle East	NA
% Japan	NA
% Australasia	NA
% Asia - Developed	NA
% Asia - Emerging	NA

Portfolio Structure	
% Cash	1.17
% US Stocks	0.00
% Bonds	86.69
% Non-US Stocks	0.00
% Pref	0.00
% Conv	0.20
% Other	0.00
% Non-US Bonds	11.94

Sector Allocation	
% Basic Materials	NA
% Communication Services	NA
% Consumer Cyclical	NA
% Consumer Defensive	NA
% Healthcare	NA
% Industrials	NA
% Real Estate	NA
% Technology	NA
% Energy	NA
% Financial Services	NA
% Utilities	NA

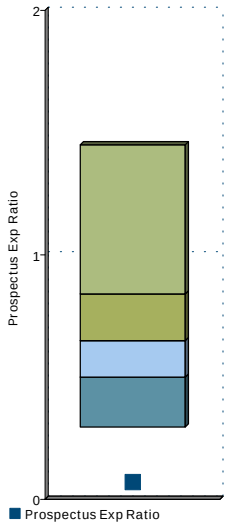
Credit Quality	
Avg Eff Duration	2.66
Effective Maturity	2.90
Avg Credit Quality	AA
AAA	70.13
AA	5.56
A	11.60
BBB	12.70
BB	0.00
B	0.00
Below B	0.01
NR/NA	0.00

Top Ten Holdings	
United States Treasury Notes 1.25%	2.10%
United States Treasury Notes 1.25%	1.77%
United States Treasury Notes 1.38%	1.65%
United States Treasury Notes 1.38%	1.46%
United States Treasury Notes 1.88%	1.21%
United States Treasury Notes 1.38%	1.20%
United States Treasury Notes 1.62%	1.20%
United States Treasury Notes 1.62%	1.17%
United States Treasury Notes 1.12%	1.17%
United States Treasury Notes 1.38%	1.16%

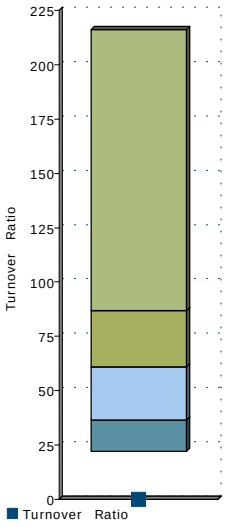
Portfolio Information	
Ticker	VBIRX
Morningstar Category	Short-term Bond
Avg Mkt Cap $MM	NA
Cat Med Mkt Cap $MM	22921.19
Net Assets $MM	53234.00
Turnover Ratio	0.05
% Assets in Top 10 Holdings	14.10
Total Number of Holdings	2554.00
Manager Name	Joshua C. Barrickman
Manager Tenure	5.86
Fund Incept Date	03/01/1994
Prospectus Exp Ratio	0.07
Phone Number	800-662-7447

Portfolio Ratings	
Mstar Rating	★★★
3 Year Mstar Rating	★★★
% Rank Cat 3 Yr	65
5 Year Mstar Rating	★★★
% Rank Cat 5 Yr	51
10 Year Mstar Rating	★★
% Rank Cat 10 Yr	74

Expense Ratio vs. Peer Group



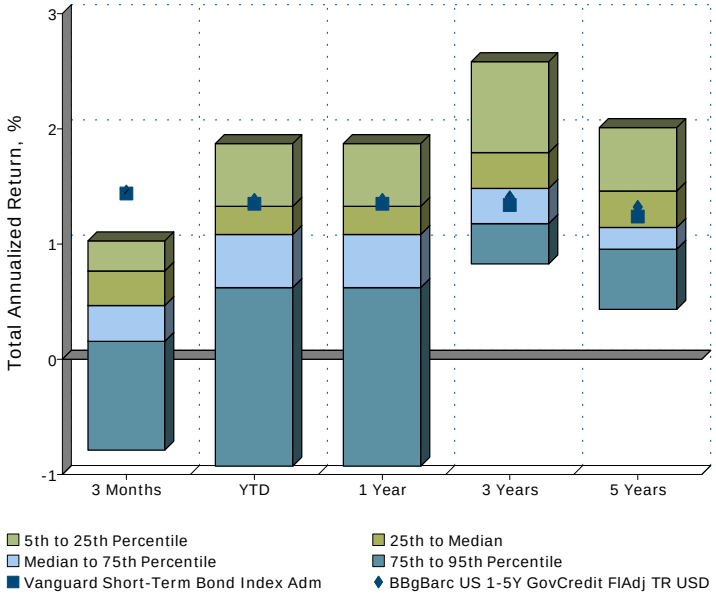
Turnover Ratio vs. Peer Group



Investment Strategy Summary

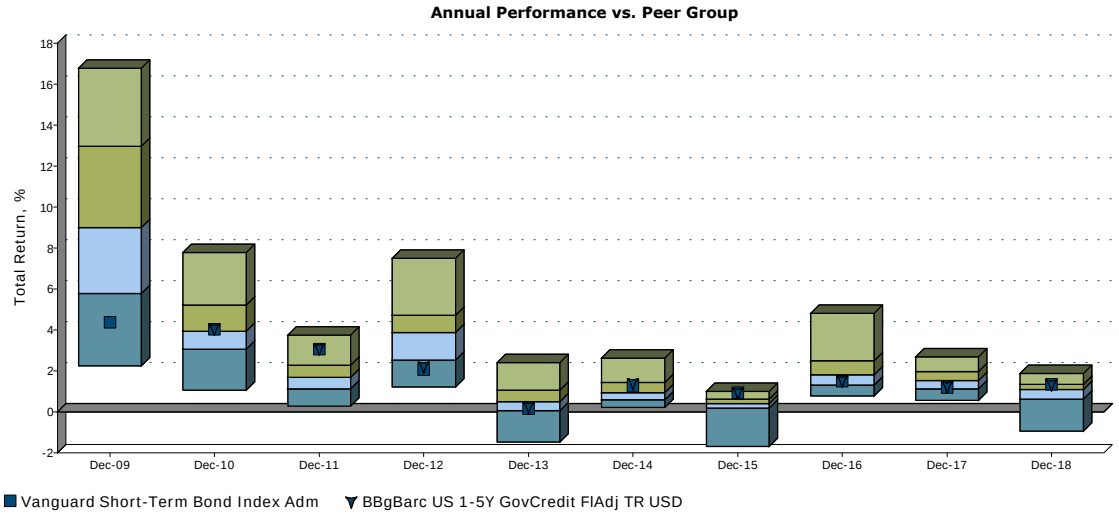
The investment seeks to track the performance of Bloomberg Barclays U.S. 1-5 Year Government/Credit Float Adjusted Index. Bloomberg Barclays U.S. 1-5 Year Government/Credit Float Adjusted Index includes all medium and larger issues of U.S. government, investment-grade corporate, and investment-grade 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 vs. Peer Group

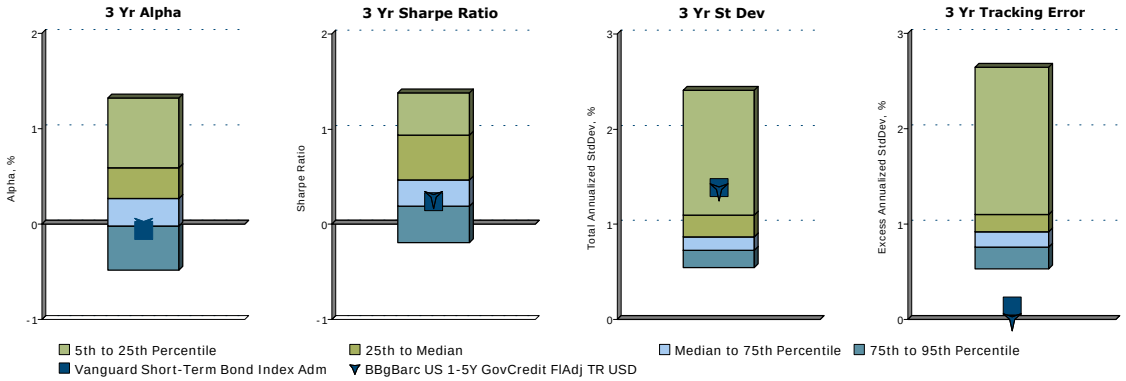


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Vanguard Short-Term Bond Index Adm	1.44	1.35	1.35	1.34	1.24
BBgBarc US 1-5Y GovCredit FlAdj TR USD	1.46	1.38	1.38	1.40	1.32
Universe(5%)	1.03	1.87	1.87	2.58	2.01
Universe(25%)	0.77	1.33	1.33	1.79	1.46
Universe(Median)	0.47	1.08	1.08	1.48	1.14
Universe(75%)	0.16	0.62	0.62	1.18	0.96
Universe(95%)	-0.79	-0.93	-0.93	0.83	0.43

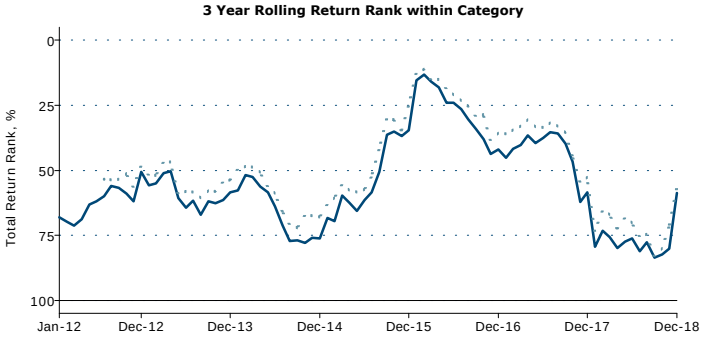
Vanguard Short-Term Bond Index Adm

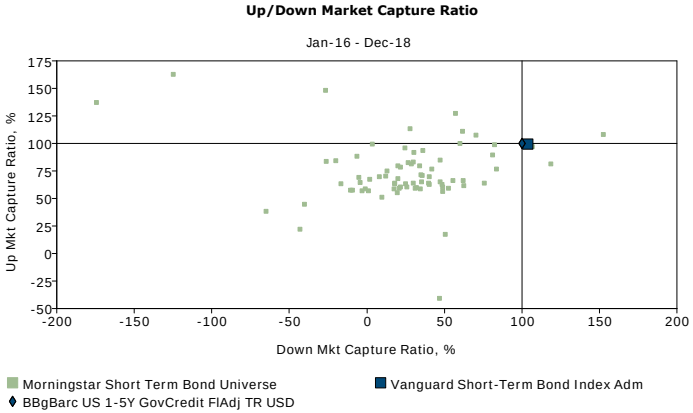


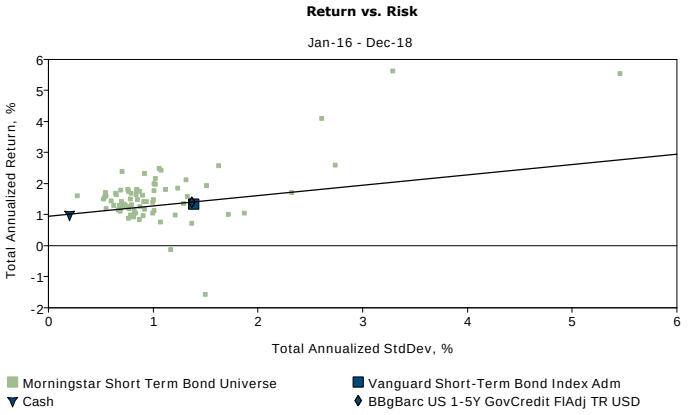
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vanguard Short-Term Bond Index Adm	4.38	4.03	3.08	2.05	0.17	1.26	0.92	1.49	1.18	1.35
BBgBarc US 1-5Y GovCredit FlAdj TR USD	NA	4.08	3.13	2.24	0.29	1.43	0.97	1.57	1.27	1.38



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Vanguard Short-Term Bond Index Adm	-0.07	1.01	98.97	0.24	1.39	0.14	3.49
BBgBarc US 1-5Y GovCredit FlAdj TR USD	0.00	1.00	100.00	0.29	1.37	0.00	3.99
Universe(5%)	1.32	0.88	91.49	1.38	2.41	2.65	175.05
Universe(25%)	0.59	0.58	76.22	0.94	1.10	1.10	33.27
Universe(Median)	0.27	0.47	59.84	0.46	0.87	0.92	14.29
Universe(75%)	-0.02	0.37	37.65	0.19	0.73	0.76	5.38
Universe(95%)	-0.48	0.06	4.43	-0.19	0.55	0.53	1.30







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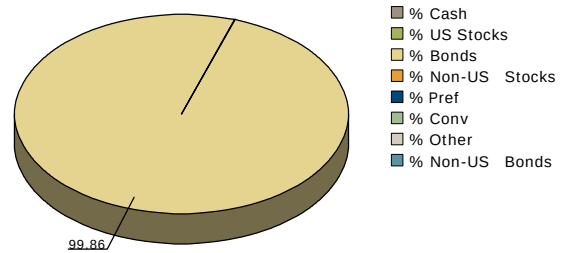
Vanguard Inflation-Protected Secs I



Portfolio Region	
% United States	NA
% Canada	NA
% Latin America	NA
% United Kingdom	NA
% Eurozone	NA
% Europe - ex Euro	NA
% Europe - Emerging	NA
% Africa	NA
% Middle East	NA
% Japan	NA
% Australasia	NA
% Asia - Developed	NA
% Asia - Emerging	NA

Portfolio Structure	
% Cash	0.14
% US Stocks	0.00
% Bonds	99.86
% Non-US Stocks	0.00
% Pref	0.00
% Conv	0.00
% Other	0.00
% Non-US Bonds	0.00

Sector Allocation	
% Basic Materials	NA
% Communication Services	NA
% Consumer Cyclical	NA
% Consumer Defensive	NA
% Healthcare	NA
% Industrials	NA
% Real Estate	NA
% Technology	NA
% Energy	NA
% Financial Services	NA
% Utilities	NA

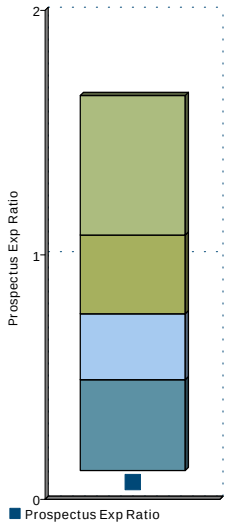
Credit Quality	
Avg Eff Duration	7.43
Effective Maturity	8.30
Avg Credit Quality	Government
AAA	100.00
AA	0.00
A	0.00
BBB	0.00
BB	0.00
B	0.00
Below B	0.00
NR/NA	0.00

Top Ten Holdings	
United States Treasury Notes 0.12%	5.70%
United States Treasury Notes 0.12%	4.15%
United States Treasury Notes 0.62%	3.82%
United States Treasury Notes 0.12%	3.81%
United States Treasury Notes 0.38%	3.75%
United States Treasury Notes 0.12%	3.74%
United States Treasury Notes 0.38%	3.72%
United States Treasury Notes 0.25%	3.71%
United States Treasury Notes 0.12%	3.69%
United States Treasury Notes 0.12%	3.46%

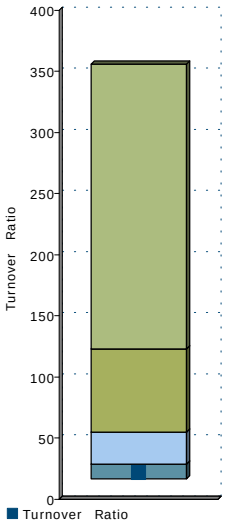
Portfolio Information	
Ticker	VIPIX
Morningstar Category	Inflation-Protected Bond
Avg Mkt Cap $MM	NA
Cat Med Mkt Cap $MM	15468.85
Net Assets $MM	26778.00
Turnover Ratio	22.00
% Assets in Top 10 Holdings	39.54
Total Number of Holdings	44.00
Manager Name	Gemma Wright-Casparius
Manager Tenure	7.37
Fund Incept Date	06/29/2000
Prospectus Exp Ratio	0.07
Phone Number	888-809-8102

Portfolio Ratings	
Mstar Rating	★★★★
3 Year Mstar Rating	★★★★
% Rank Cat 3 Yr	30
5 Year Mstar Rating	★★★★
% Rank Cat 5 Yr	12
10 Year Mstar Rating	★★★★
% Rank Cat 10 Yr	20

Expense Ratio vs. Peer Group



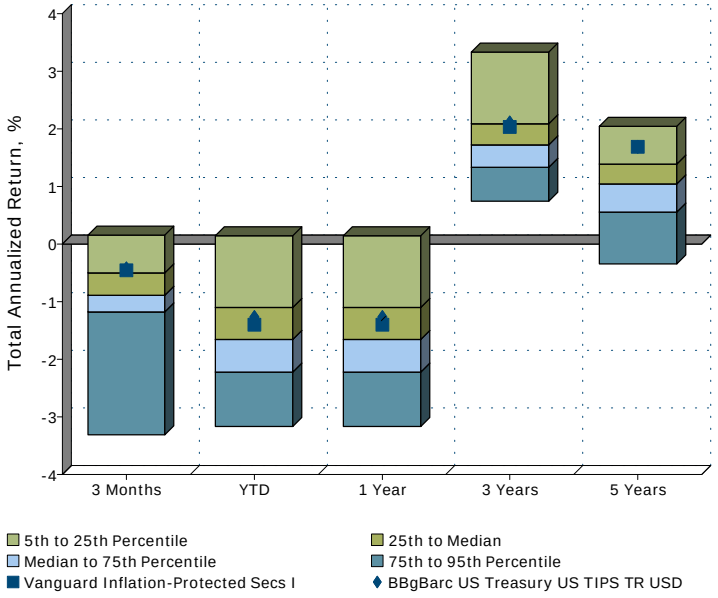
Turnover Ratio vs. Peer Group



Investment Strategy Summary

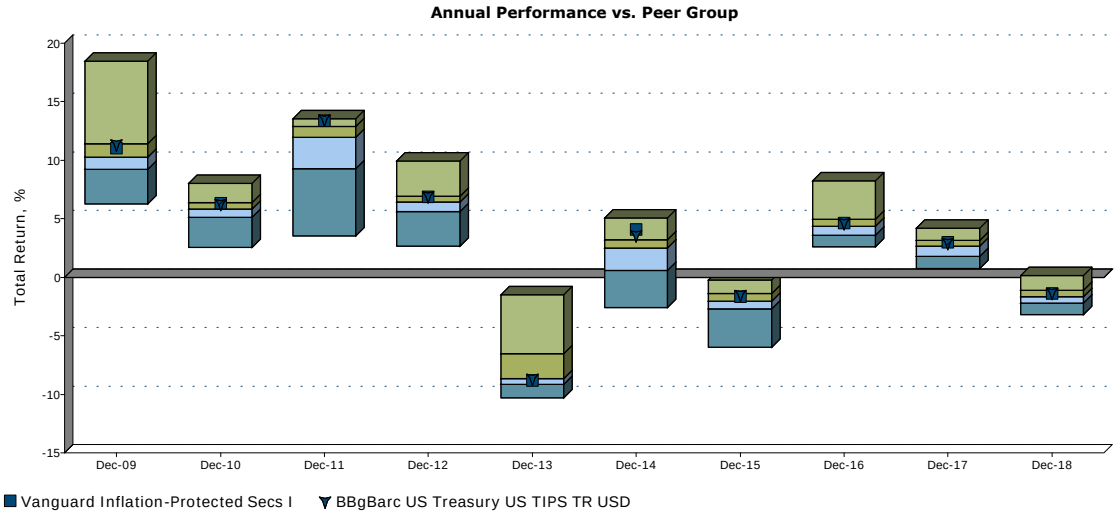
The investment seeks to provide inflation protection and income consistent with investment in inflation-indexed securities. The fund invests at least 80% of its assets in inflation-indexed bonds issued by the U.S. government, its agencies and instrumentalities, and corporations. It may invest in bonds 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 vs. Peer Group

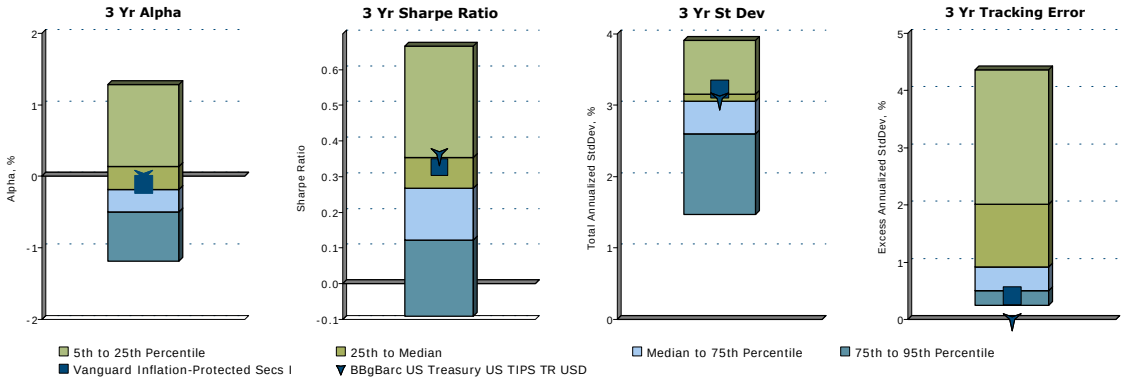


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Vanguard Inflation-Protected Secs I	-0.46	-1.40	-1.40	2.04	1.68
BBgBarc US Treasury US TIPS TR USD	-0.42	-1.26	-1.26	2.11	1.69
Universe(5%)	0.15	0.15	0.15	3.34	2.04
Universe(25%)	-0.49	-1.10	-1.10	2.09	1.39
Universe(Median)	-0.89	-1.65	-1.65	1.72	1.05
Universe(75%)	-1.18	-2.23	-2.23	1.33	0.56
Universe(95%)	-3.32	-3.17	-3.17	0.74	-0.34

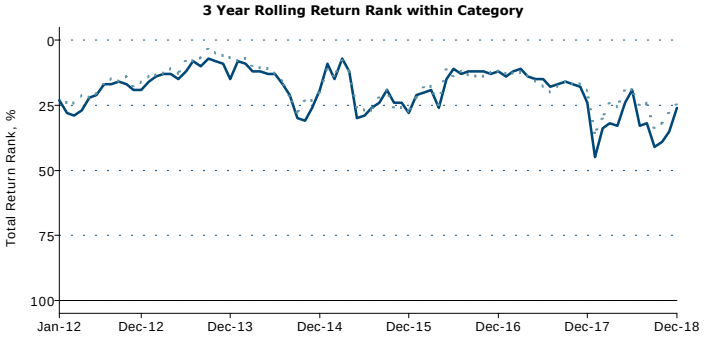
Vanguard Inflation-Protected Secs I

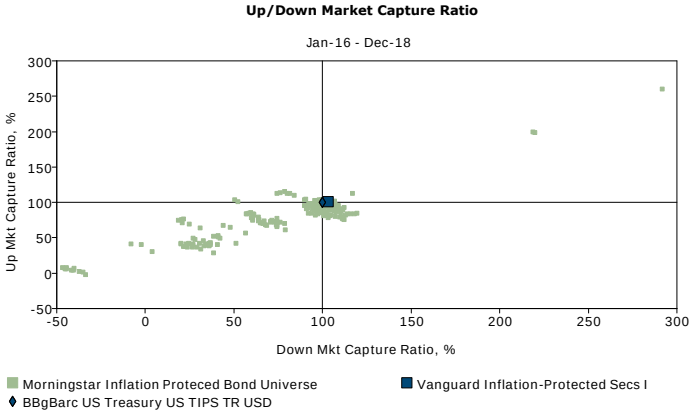


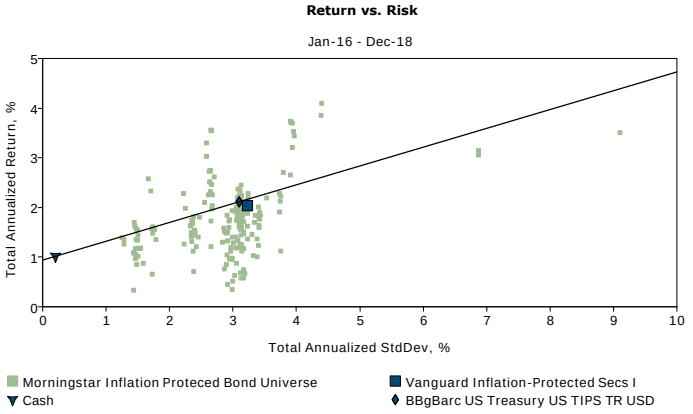
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vanguard Inflation-Protected Secs I	11.03	6.33	13.39	6.87	-8.83	4.07	-1.67	4.63	2.97	-1.40
BBgBarc US Treasury US TIPS TR USD	11.41	6.31	13.56	6.98	-8.61	3.64	-1.44	4.68	3.01	-1.26



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Vanguard Inflation-Protected Secs I	-0.11	1.03	98.51	0.33	3.23	0.41	1.62
BBgBarc US Treasury US TIPS TR USD	0.00	1.00	100.00	0.36	3.10	0.00	1.85
Universe(5%)	1.28	1.05	99.37	0.67	3.91	4.36	4.26
Universe(25%)	0.14	1.00	97.51	0.35	3.16	2.01	2.20
Universe(Median)	-0.18	0.94	92.14	0.27	3.06	0.92	1.55
Universe(75%)	-0.50	0.73	74.61	0.12	2.60	0.51	1.14
Universe(95%)	-1.18	0.29	24.57	-0.09	1.47	0.25	0.52







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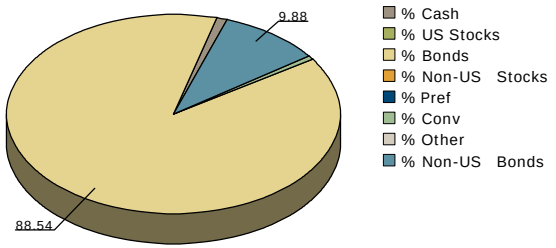
Vanguard Interm-Term Bond Index Adm



Portfolio Region	
% United States	NA
% Canada	NA
% Latin America	NA
% United Kingdom	NA
% Eurozone	NA
% Europe - ex Euro	NA
% Europe - Emerging	NA
% Africa	NA
% Middle East	NA
% Japan	NA
% Australasia	NA
% Asia - Developed	NA
% Asia - Emerging	NA

Portfolio Structure	
% Cash	0.99
% US Stocks	0.00
% Bonds	88.54
% Non-US Stocks	0.00
% Pref	0.00
% Conv	0.59
% Other	0.00
% Non-US Bonds	9.88

Sector Allocation	
% Basic Materials	NA
% Communication Services	NA
% Consumer Cyclical	NA
% Consumer Defensive	NA
% Healthcare	NA
% Industrials	NA
% Real Estate	NA
% Technology	NA
% Energy	NA
% Financial Services	NA
% Utilities	NA

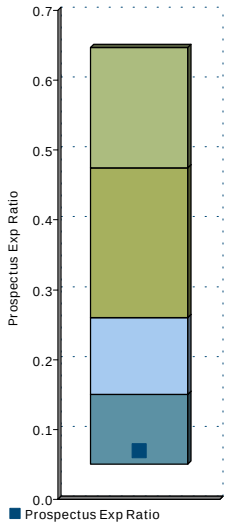
Credit Quality	
Avg Eff Duration	6.17
Effective Maturity	7.30
Avg Credit Quality	A
AAA	54.17
AA	4.27
A	16.18
BBB	25.35
BB	0.00
B	0.00
Below B	0.03
NR/NA	0.00

Top Ten Holdings	
United States Treasury Notes 2.12%	2.56%
United States Treasury Notes 2.5%	2.15%
United States Treasury Notes 2.88%	2.14%
United States Treasury Notes 2.25%	2.08%
United States Treasury Notes 1.62%	1.95%
United States Treasury Notes 2.38%	1.94%
United States Treasury Notes 1.62%	1.93%
United States Treasury Notes 2.88%	1.88%
United States Treasury Notes 2%	1.86%
United States Treasury Notes 2.12%	1.82%

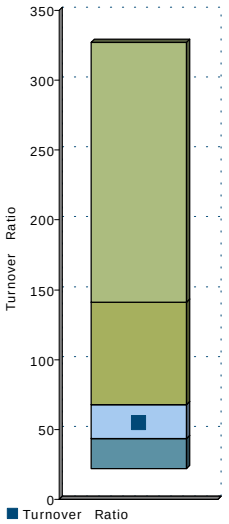
Portfolio Information	
Ticker	VBILX
Morningstar Category	Intermediate-term Bond
Avg Mkt Cap $MM	NA
Cat Med Mkt Cap $MM	NA
Net Assets $MM	31376.00
Turnover Ratio	55.00
% Assets in Top 10 Holdings	20.32
Total Number of Holdings	1860.00
Manager Name	Joshua C. Barrickman
Manager Tenure	10.69
Fund Incept Date	03/01/1994
Prospectus Exp Ratio	0.07
Phone Number	800-662-7447

Portfolio Ratings	
Mstar Rating	★★★
3 Year Mstar Rating	★★★
% Rank Cat 3 Yr	47
5 Year Mstar Rating	★★★★
% Rank Cat 5 Yr	15
10 Year Mstar Rating	★★★
% Rank Cat 10 Yr	47

Expense Ratio vs. Peer Group



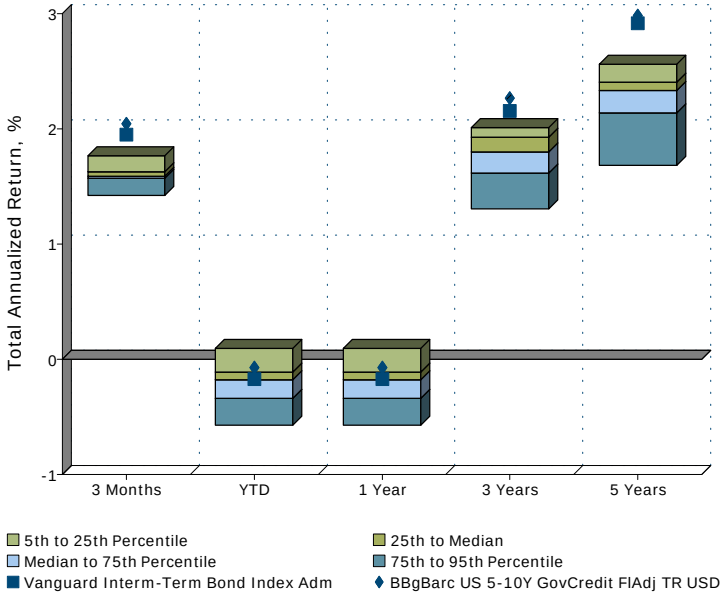
Turnover Ratio vs. Peer Group



Investment Strategy Summary

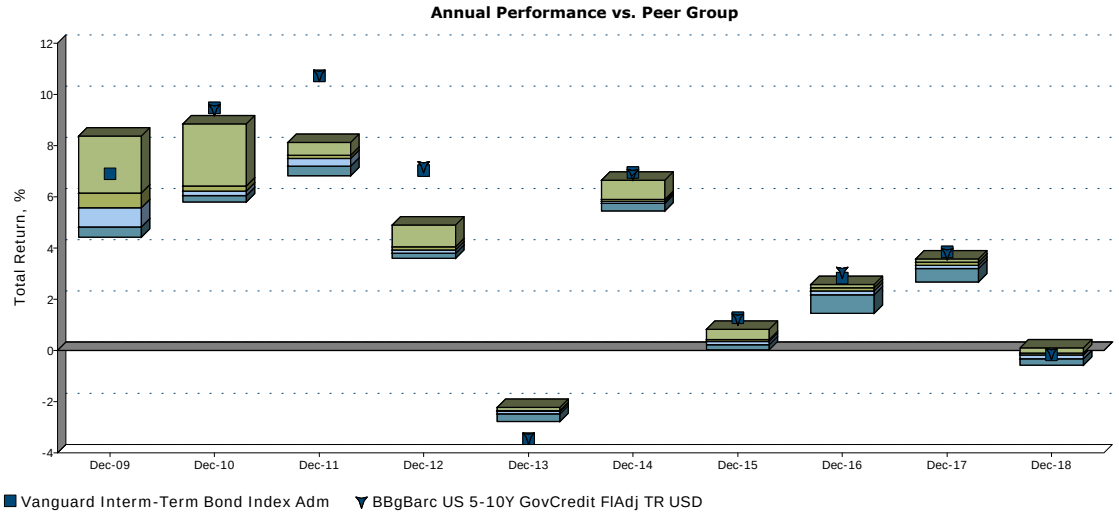
The investment seeks the performance of the Bloomberg Barclays U.S. 5-10 Year Government/Credit Float Adjusted Index. Bloomberg Barclays U.S. 5-10 Year Government/Credit Float Adjusted Index includes all medium and larger issues of U.S. government, investment-grade corporate and investment-grade international 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 vs. Peer Group

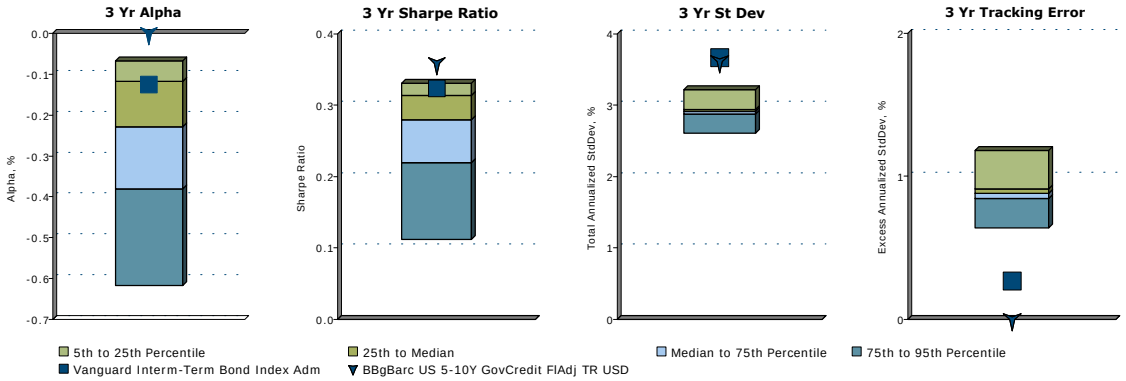


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Vanguard Interm-Term Bond Index Adm	1.95	-0.17	-0.17	2.15	2.92
BBgBarc US 5-10Y GovCredit FlAdj TR USD	2.04	-0.07	-0.07	2.27	2.98
Universe(5%)	1.77	0.09	0.09	2.01	2.56
Universe(25%)	1.63	-0.11	-0.11	1.93	2.40
Universe(Median)	1.59	-0.18	-0.18	1.80	2.33
Universe(75%)	1.57	-0.34	-0.34	1.62	2.14
Universe(95%)	1.42	-0.57	-0.57	1.31	1.69

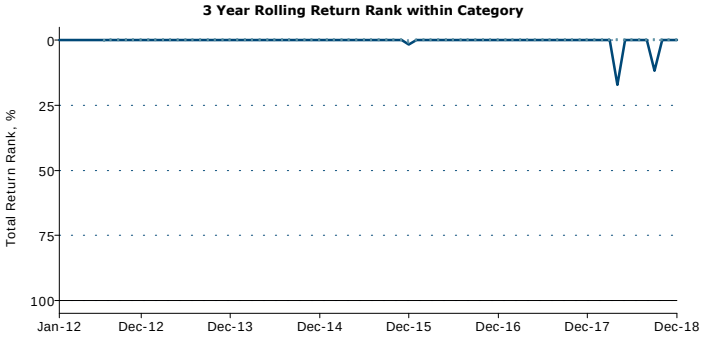
Vanguard Interm-Term Bond Index Adm

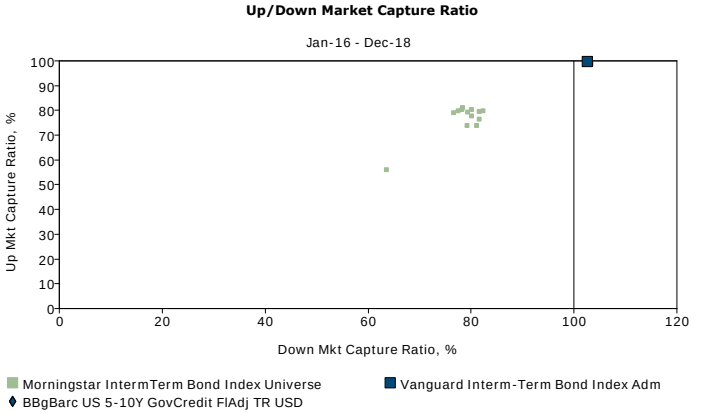


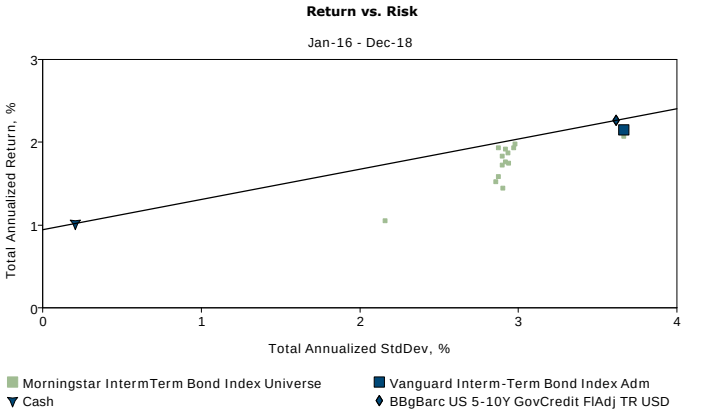
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vanguard Interm-Term Bond Index Adm	6.89	9.49	10.73	7.02	-3.45	6.96	1.27	2.83	3.85	-0.17
BBgBarc US 5-10Y GovCredit FIAdj TR USD	NA	9.44	10.79	7.22	-3.37	6.91	1.28	3.10	3.81	-0.07



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Vanguard Interm-Term Bond Index Adm	-0.12	1.01	99.47	0.32	3.66	0.27	1.45
BBgBarc US 5-10Y GovCredit FIAdj TR USD	0.00	1.00	100.00	0.36	3.62	0.00	1.61
Universe(5%)	-0.07	0.88	98.40	0.33	3.22	1.18	1.78
Universe(25%)	-0.12	0.80	97.76	0.31	2.94	0.91	1.69
Universe(Median)	-0.23	0.79	97.47	0.28	2.91	0.88	1.49
Universe(75%)	-0.38	0.79	97.26	0.22	2.88	0.85	1.32
Universe(95%)	-0.62	0.71	96.55	0.11	2.61	0.64	1.11







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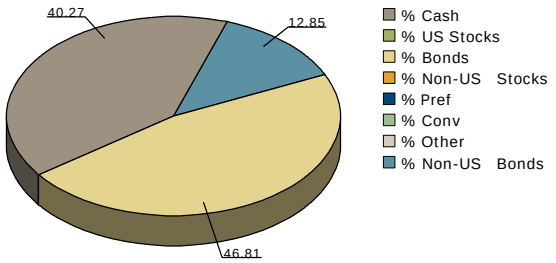
Columbia Strategic Income Inst3



Portfolio Region	
% United States	100.00
% Canada	0.00
% Latin America	0.00
% United Kingdom	0.00
% Eurozone	0.00
% Europe - ex Euro	0.00
% Europe - Emerging	0.00
% Africa	0.00
% Middle East	0.00
% Japan	0.00
% Australasia	0.00
% Asia - Developed	0.00
% Asia - Emerging	0.00

Portfolio Structure	
% Cash	40.27
% US Stocks	0.02
% Bonds	46.81
% Non-US Stocks	0.00
% Pref	0.00
% Conv	0.05
% Other	0.01
% Non-US Bonds	12.85

Sector Allocation	
% Basic Materials	34.33
% Communication Services	0.34
% Consumer Cyclical	24.18
% Consumer Defensive	0.00
% Healthcare	0.00
% Industrials	0.24
% Real Estate	0.00
% Technology	0.00
% Energy	0.00
% Financial Services	0.00
% Utilities	40.91

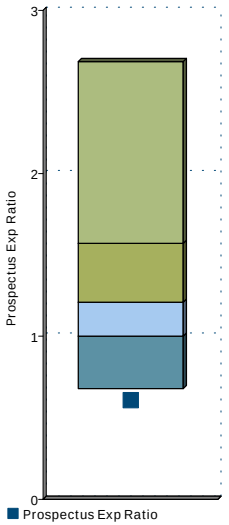
Credit Quality	
Avg Eff Duration	5.14
Effective Maturity	9.20
Avg Credit Quality	BB
AAA	9.40
AA	8.33
A	6.32
BBB	22.14
BB	14.25
B	20.02
Below B	2.66
NR/NA	16.87

Top Ten Holdings	
Euro BOBL Future Dec18	24.62%
US 10 Year Note (CBT) Dec18	16.42%
2 Year US Treasury Note Future Dec18	8.61%
10y Rtp 3.100000 04-Dec-2018	8.54%
3y Rtr 2.750000 20-Feb-2019	7.47%
3y Rtr 2.750000 22-Feb-2019	7.47%
Swp: Usd 2.740000 16-Feb-2023	7.30%
5y Rtp 3.100000 10-Dec-2018	6.40%
Ice: (Cdx.Na.Hy.31.V1)	4.49%
US Ultra Bond (CBT) Dec18	3.39%

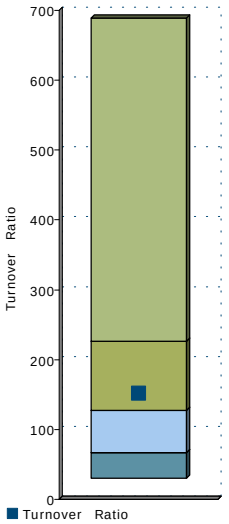
Portfolio Information	
Ticker	CPHUX
Morningstar Category	Nontraditional Bond
Avg Mkt Cap $MM	10963.36
Cat Med Mkt Cap $MM	5085.27
Net Assets $MM	4175.00
Turnover Ratio	152.00
% Assets in Top 10 Holdings	94.71
Total Number of Holdings	1109.00
Manager Name	Colin J. Lundgren
Manager Tenure	8.61
Fund Incept Date	04/21/1977
Prospectus Exp Ratio	0.61
Phone Number	800-345-6611

Portfolio Ratings	
Mstar Rating	★★★★★
3 Year Mstar Rating	★★★★
% Rank Cat 3 Yr	20
5 Year Mstar Rating	★★★★★
% Rank Cat 5 Yr	10
10 Year Mstar Rating	★★★★
% Rank Cat 10 Yr	16

Expense Ratio vs. Peer Group



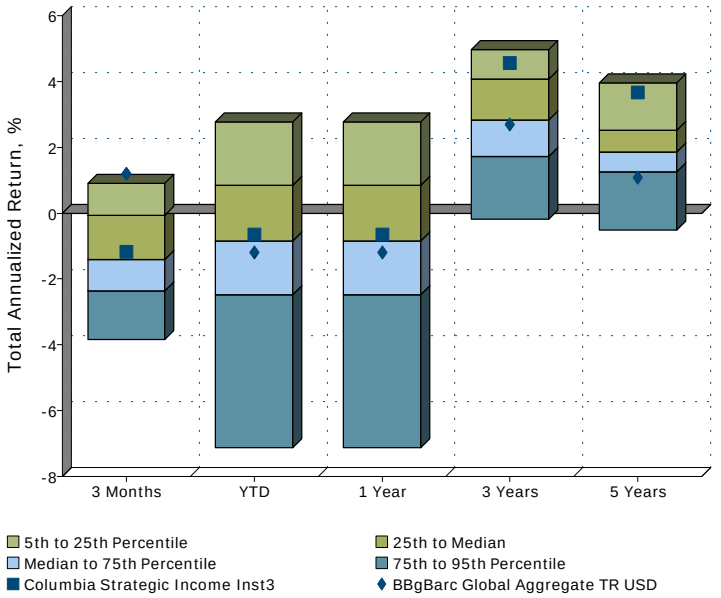
Turnover Ratio vs. Peer Group



Investment Strategy Summary

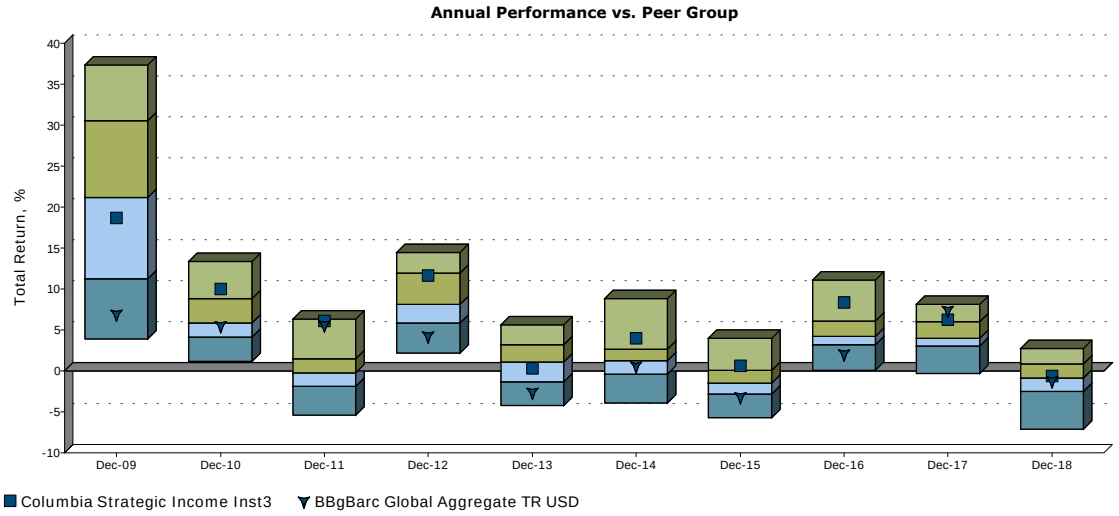
The investment seeks total return, consisting of current income and capital appreciation. Under normal circumstances, the fund has substantial exposure to fixed-income/debt markets. It may invest in U.S. government bonds and notes, U.S. and international bonds and notes, investment grade corporate (or 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 vs. Peer Group

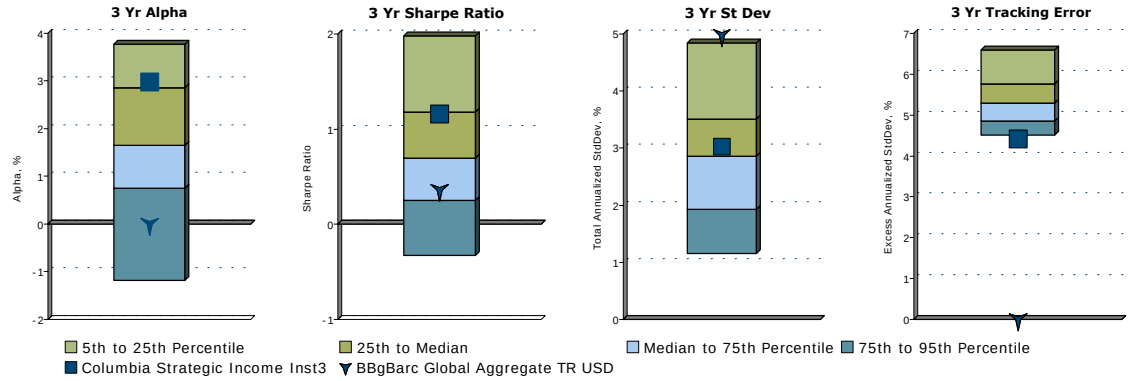


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Columbia Strategic Income Inst3	-1.18	-0.64	-0.64	4.57	3.66
BBgBarc Global Aggregate TR USD	1.20	-1.20	-1.20	2.70	1.08
Universe(5%)	0.90	2.77	2.77	4.96	3.96
Universe(25%)	-0.08	0.84	0.84	4.08	2.51
Universe(Median)	-1.41	-0.84	-0.84	2.83	1.86
Universe(75%)	-2.37	-2.49	-2.49	1.73	1.25
Universe(95%)	-3.85	-7.13	-7.13	-0.18	-0.51

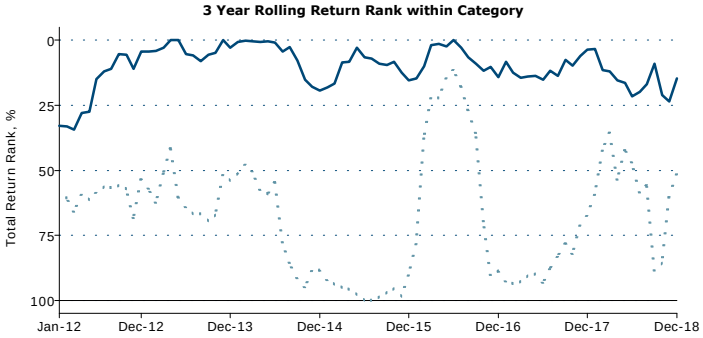
Columbia Strategic Income Inst3

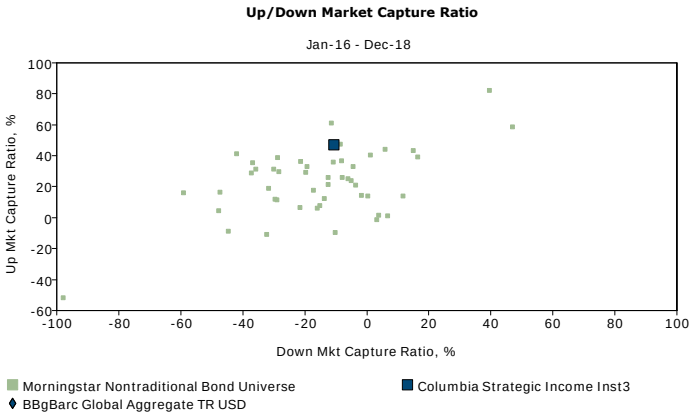


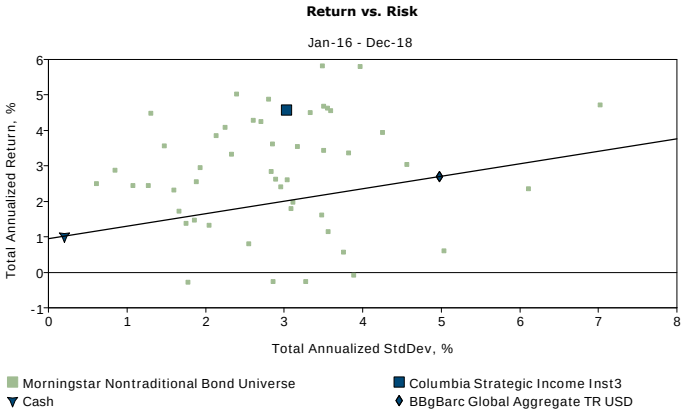
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Columbia Strategic Income Inst3	18.67	9.96	6.11	11.60	0.32	3.99	0.66	8.34	6.22	-0.64
BBgBarc Global Aggregate TR USD	6.93	5.54	5.64	4.32	-2.60	0.59	-3.15	2.09	7.39	-1.20



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Columbia Strategic Income Inst3	2.97	0.30	23.48	1.16	3.03	4.42	10.39
BBgBarc Global Aggregate TR USD	0.00	1.00	100.00	0.36	4.97	0.00	1.29
Universe(5%)	3.78	0.35	32.37	1.98	4.85	6.59	351.90
Universe(25%)	2.86	0.21	14.86	1.18	3.50	5.77	11.70
Universe(Median)	1.65	0.09	5.04	0.69	2.86	5.29	4.09
Universe(75%)	0.75	-0.01	1.13	0.25	1.93	4.85	1.69
Universe(95%)	-1.18	-0.08	0.09	-0.33	1.15	4.51	-0.08







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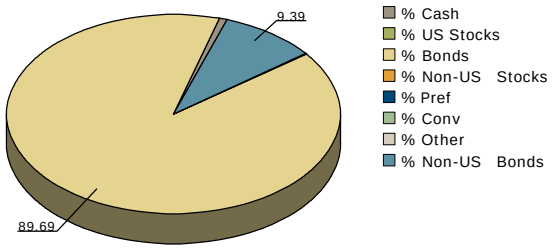
Vanguard Long-Term Bond Index Instl



Portfolio Region	
% United States	NA
% Canada	NA
% Latin America	NA
% United Kingdom	NA
% Eurozone	NA
% Europe - ex Euro	NA
% Europe - Emerging	NA
% Africa	NA
% Middle East	NA
% Japan	NA
% Australasia	NA
% Asia - Developed	NA
% Asia - Emerging	NA

Portfolio Structure	
% Cash	0.86
% US Stocks	0.00
% Bonds	89.69
% Non-US Stocks	0.00
% Pref	0.00
% Conv	0.06
% Other	0.00
% Non-US Bonds	9.39

Sector Allocation	
% Basic Materials	NA
% Communication Services	NA
% Consumer Cyclical	NA
% Consumer Defensive	NA
% Healthcare	NA
% Industrials	NA
% Real Estate	NA
% Technology	NA
% Energy	NA
% Financial Services	NA
% Utilities	NA

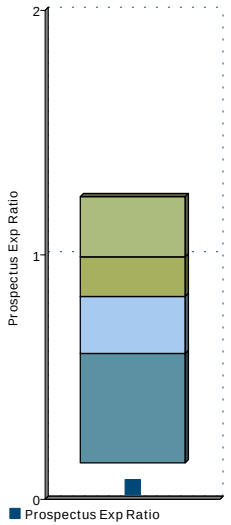
Credit Quality	
Avg Eff Duration	14.65
Effective Maturity	24.40
Avg Credit Quality	A
AAA	41.39
AA	7.70
A	22.31
BBB	28.60
BB	0.00
B	0.00
Below B	0.00
NR/NA	0.00

Top Ten Holdings	
United States Treasury Bonds 3.75%	1.44%
United States Treasury Bonds 3.62%	1.43%
United States Treasury Bonds 3.38%	1.35%
United States Treasury Bonds 3%	1.32%
United States Treasury Bonds 3%	1.31%
United States Treasury Bonds 3%	1.31%
United States Treasury Bonds 2.88%	1.29%
United States Treasury Bonds 3.12%	1.28%
United States Treasury Bonds 3.12%	1.25%
United States Treasury Bonds 2.88%	1.23%

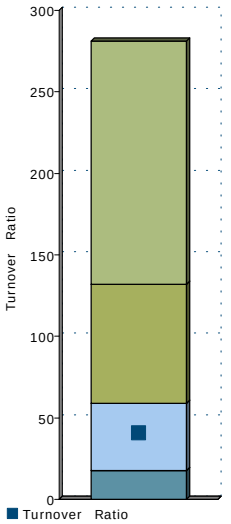
Portfolio Information	
Ticker	VBLLX
Morningstar Category	Long-term Bond
Avg Mkt Cap $MM	NA
Cat Med Mkt Cap $MM	NA
Net Assets $MM	11194.00
Turnover Ratio	41.00
% Assets in Top 10 Holdings	13.20
Total Number of Holdings	2158.00
Manager Name	Joshua C. Barrickman
Manager Tenure	5.86
Fund Incept Date	03/01/1994
Prospectus Exp Ratio	0.05
Phone Number	888-809-8102

Portfolio Ratings	
Mstar Rating	★★★
3 Year Mstar Rating	★★★
% Rank Cat 3 Yr	53
5 Year Mstar Rating	★★★
% Rank Cat 5 Yr	35
10 Year Mstar Rating	★★
% Rank Cat 10 Yr	78

Expense Ratio vs. Peer Group



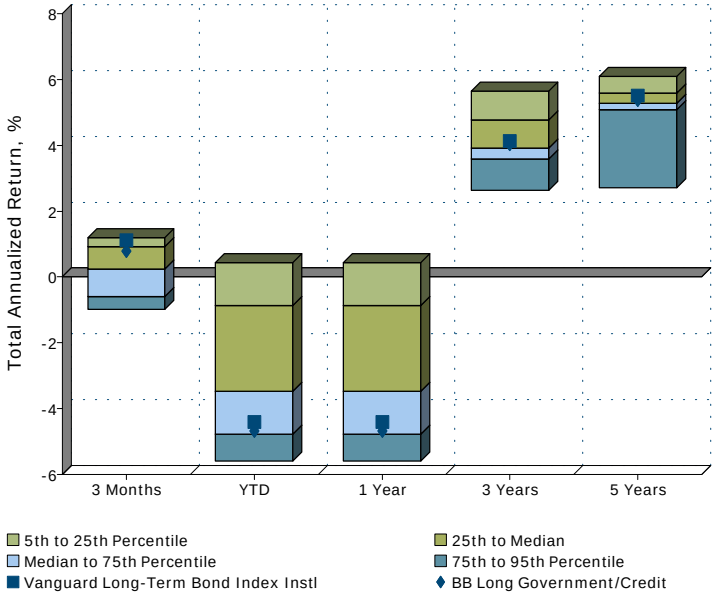
Turnover Ratio vs. Peer Group



Investment Strategy Summary

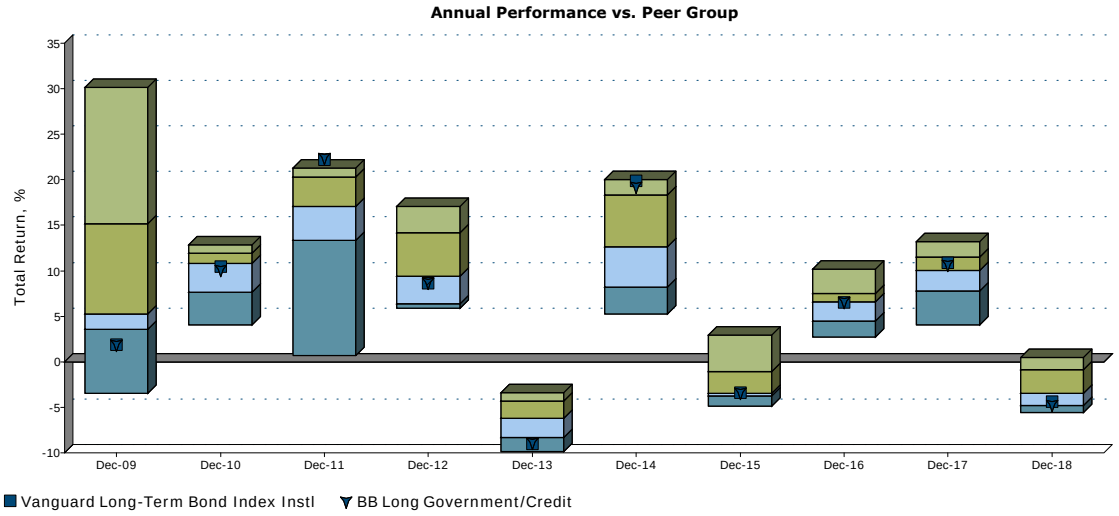
The investment seeks to track the performance of the Bloomberg Barclays U.S. Long Government/Credit Float Adjusted Index. Bloomberg Barclays U.S. Long Government/Credit Float Adjusted Index includes all medium and larger issues of U.S. government, investment-grade corporate, and investment-grade international 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 vs. Peer Group

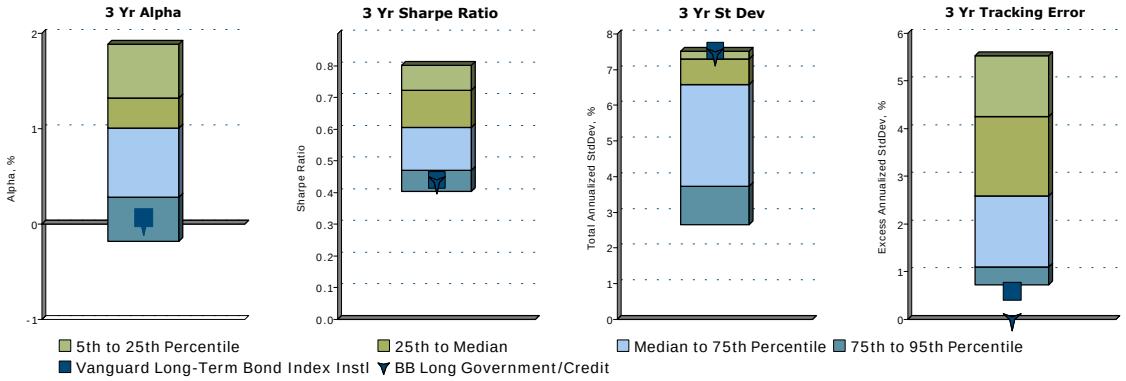


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Vanguard Long-Term Bond Index Instl	1.11	-4.41	-4.41	4.12	5.51
BB Long Government/Credit	0.78	-4.68	-4.68	4.03	5.37
Universe(5%)	1.19	0.44	0.44	5.64	6.09
Universe(25%)	0.93	-0.87	-0.87	4.78	5.58
Universe(Median)	0.24	-3.47	-3.47	3.92	5.27
Universe(75%)	-0.60	-4.78	-4.78	3.58	5.07
Universe(95%)	-0.98	-5.60	-5.60	2.63	2.72

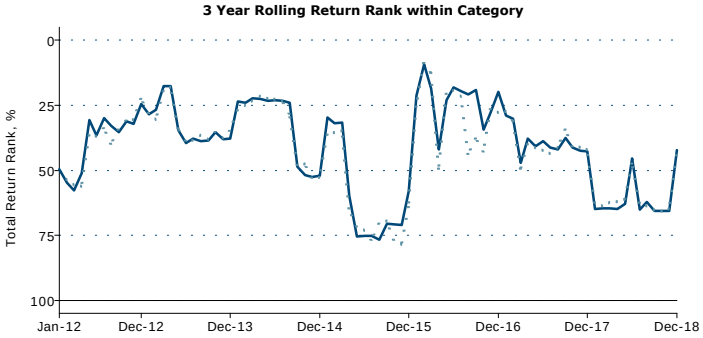
Vanguard Long-Term Bond Index Instl

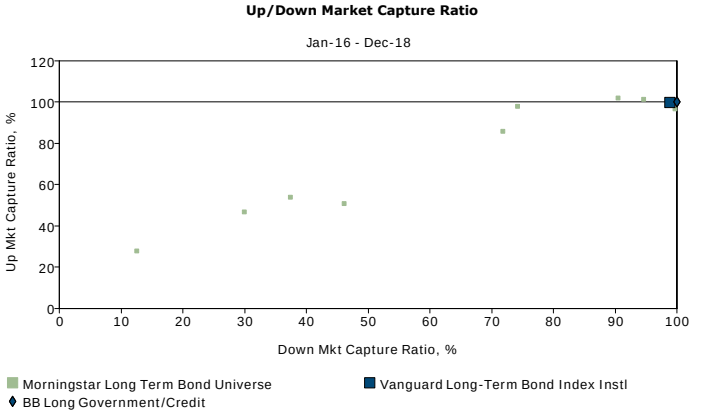


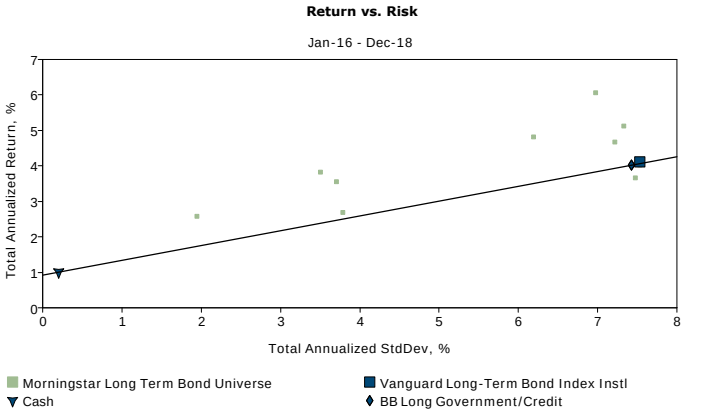
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vanguard Long-Term Bond Index Instl	1.91	10.43	22.23	8.63	-9.01	19.87	-3.37	6.51	10.87	-4.41
BB Long Government/Credit	1.92	10.16	22.49	8.78	-8.83	19.31	-3.30	6.67	10.71	-4.68



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Vanguard Long-Term Bond Index Instl	0.07	1.01	99.40	0.44	7.53	0.59	1.32
BB Long Government/Credit	0.00	1.00	100.00	0.43	7.43	0.00	1.30
Universe(5%)	1.89	1.00	99.04	0.80	7.51	5.53	6.07
Universe(25%)	1.32	0.97	97.74	0.72	7.30	4.26	3.25
Universe(Median)	1.00	0.84	91.19	0.60	6.58	2.59	2.15
Universe(75%)	0.28	0.45	86.36	0.47	3.72	1.11	1.77
Universe(95%)	-0.18	0.30	63.62	0.40	2.65	0.73	1.19







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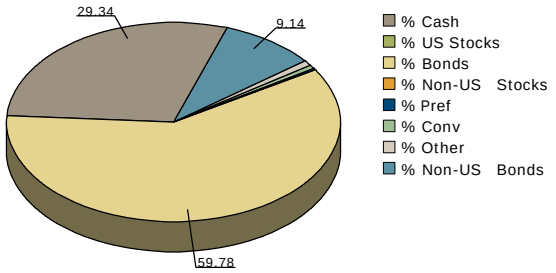
PIMCO Long Duration Total Return Instl



Portfolio Region	
% United States	100.00
% Canada	0.00
% Latin America	0.00
% United Kingdom	0.00
% Eurozone	0.00
% Europe - ex Euro	0.00
% Europe - Emerging	0.00
% Africa	0.00
% Middle East	0.00
% Japan	0.00
% Australasia	0.00
% Asia - Developed	0.00
% Asia - Emerging	0.00

Portfolio Structure	
% Cash	29.34
% US Stocks	0.00
% Bonds	59.78
% Non-US Stocks	0.00
% Pref	0.23
% Conv	0.54
% Other	0.97
% Non-US Bonds	9.14

Sector Allocation	
% Basic Materials	0.00
% Communication Services	0.00
% Consumer Cyclical	0.00
% Consumer Defensive	0.00
% Healthcare	0.00
% Industrials	0.00
% Real Estate	0.00
% Technology	0.00
% Energy	0.00
% Financial Services	100.00
% Utilities	0.00

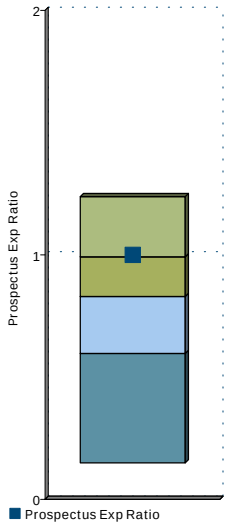
Credit Quality	
Avg Eff Duration	13.81
Effective Maturity	24.51
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
Irs Usd 2.64300 03/16/21-1y (Grn) Cme	51.34%
Irs Usd 2.60000 03/16/20-1y (Red) Cme	51.28%
US Ultra Bond (CBT) Dec18	39.07%
90 Day Eurodollar Future Sept19	20.43%
Irs Usd 2.16000 04/27/18-1y (Wht) Cme	17.82%
2 Year US Treasury Note Future Dec18	17.28%
US 10 Year Ultra Future Dec18	15.71%
US 10 Year Note (CBT) Dec18	11.47%
Irs Gbp 1.00000 09/19/18-1y (Wht) Lch	7.70%
Irs Gbp 1.00000 09/18/19-1y (Red) Lch	7.68%

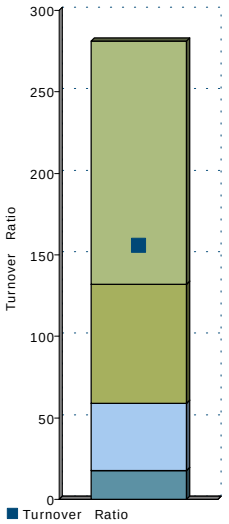
Portfolio Information	
Ticker	PLRIX
Morningstar Category	Long-term Bond
Avg Mkt Cap $MM	47300.88
Cat Med Mkt Cap $MM	47300.88
Net Assets $MM	3262.00
Turnover Ratio	156.00
% Assets in Top 10 Holdings	239.78
Total Number of Holdings	1131.00
Manager Name	Stephen A. Rodosky
Manager Tenure	11.43
Fund Incept Date	08/31/2006
Prospectus Exp Ratio	1.00
Phone Number	888-877-4626

Portfolio Ratings	
Mstar Rating	★★★★
3 Year Mstar Rating	★★★★★
% Rank Cat 3 Yr	9
5 Year Mstar Rating	★★★★
% Rank Cat 5 Yr	18
10 Year Mstar Rating	★★★
% Rank Cat 10 Yr	40

Expense Ratio vs. Peer Group



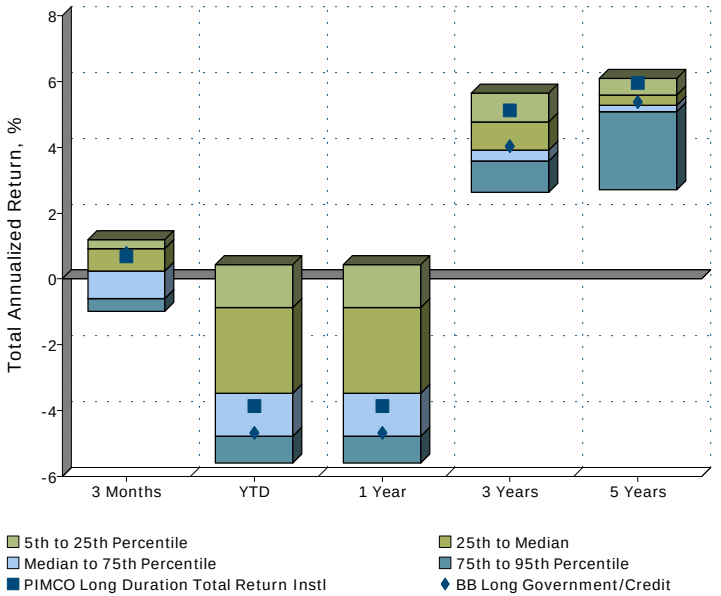
Turnover Ratio vs. Peer Group



Investment Strategy Summary

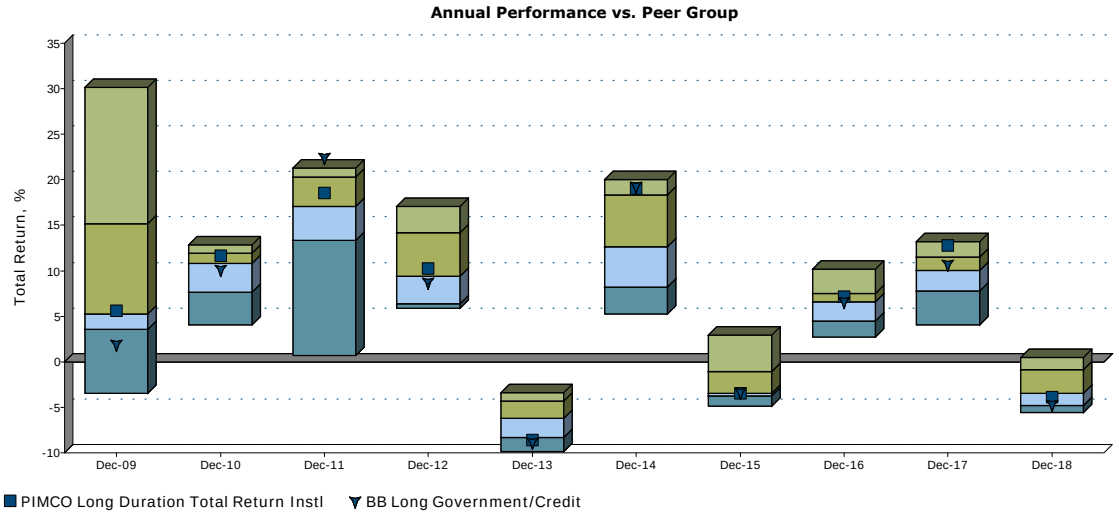
The investment seeks maximum total return, consistent with prudent investment management. The fund invests at least 65% of its total assets in a diversified portfolio of Fixed Income Instruments of varying maturities, which may be represented by forwards or derivatives such as options, futures contracts 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 vs. Peer Group

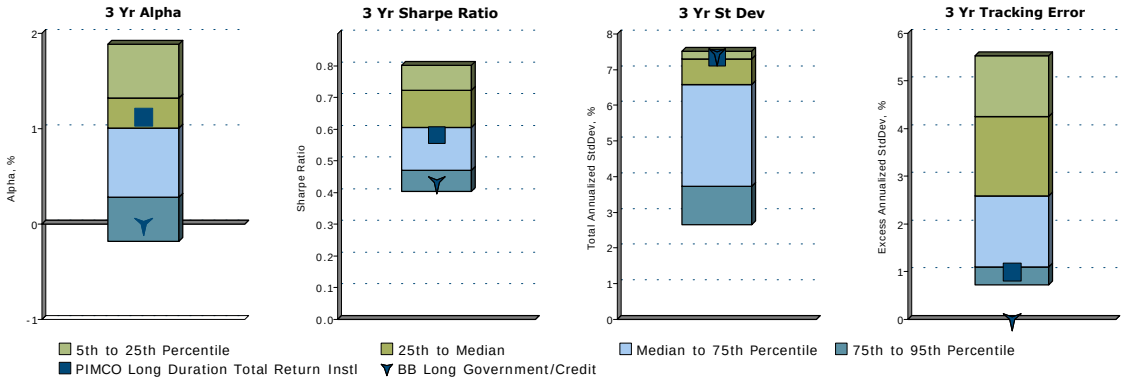


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
PIMCO Long Duration Total Return Instl	0.69	-3.86	-3.86	5.13	5.95
BB Long Government/Credit	0.78	-4.68	-4.68	4.03	5.37
Universe(5%)	1.19	0.44	0.44	5.64	6.09
Universe(25%)	0.93	-0.87	-0.87	4.78	5.58
Universe(Median)	0.24	-3.47	-3.47	3.92	5.27
Universe(75%)	-0.60	-4.78	-4.78	3.58	5.07
Universe(95%)	-0.98	-5.60	-5.60	2.63	2.72

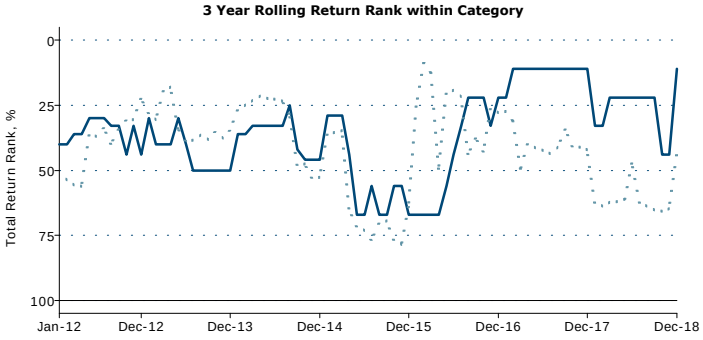
PIMCO Long Duration Total Return Instl

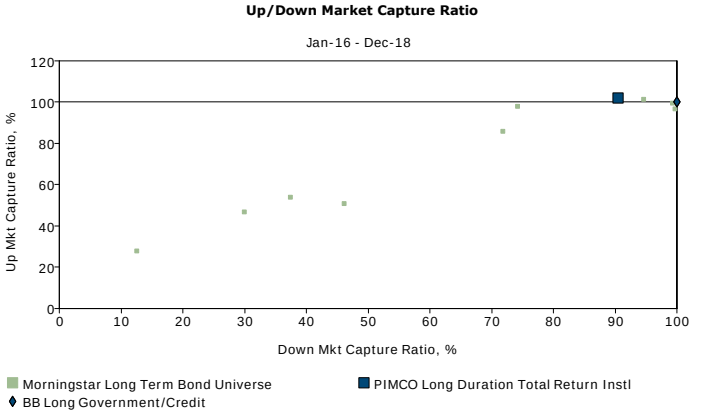


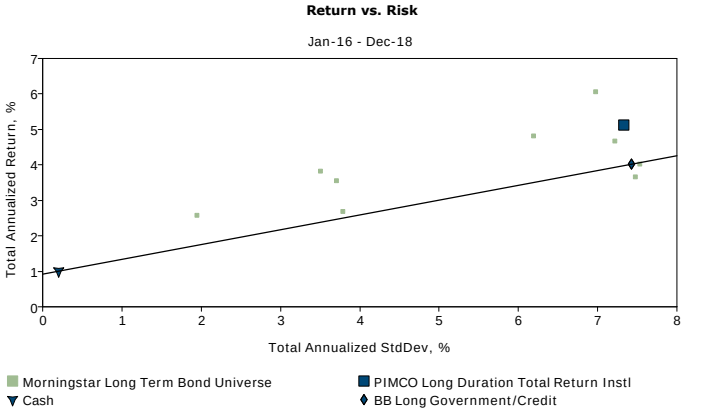
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
PIMCO Long Duration Total Return Instl	5.62	11.64	18.57	10.28	-8.56	19.02	-3.44	7.18	12.75	-3.86
BB Long Government/Credit	1.92	10.16	22.49	8.78	-8.83	19.31	-3.30	6.67	10.71	-4.68



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
PIMCO Long Duration Total Return Instl	1.12	0.98	98.21	0.58	7.33	1.00	1.94
BB Long Government/Credit	0.00	1.00	100.00	0.43	7.43	0.00	1.30
Universe(5%)	1.89	1.00	99.04	0.80	7.51	5.53	6.07
Universe(25%)	1.32	0.97	97.74	0.72	7.30	4.26	3.25
Universe(Median)	1.00	0.84	91.19	0.60	6.58	2.59	2.15
Universe(75%)	0.28	0.45	86.36	0.47	3.72	1.11	1.77
Universe(95%)	-0.18	0.30	63.62	0.40	2.65	0.73	1.19







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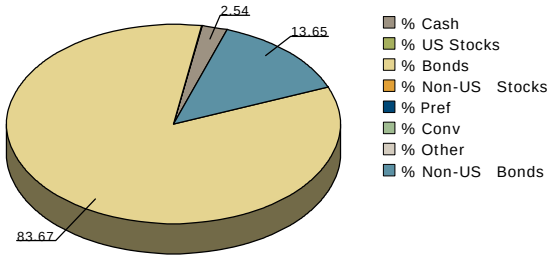
PGIM High Yield R6



Portfolio Region	
% United States	93.96
% Canada	6.04
% Latin America	0.00
% United Kingdom	0.00
% Eurozone	0.00
% Europe - ex Euro	0.00
% Europe - Emerging	0.00
% Africa	0.00
% Middle East	0.00
% Japan	0.00
% Australasia	0.00
% Asia - Developed	0.00
% Asia - Emerging	0.00

Portfolio Structure	
% Cash	2.54
% US Stocks	0.10
% Bonds	83.67
% Non-US Stocks	0.01
% Pref	0.03
% Conv	0.00
% Other	0.00
% Non-US Bonds	13.65

Sector Allocation	
% Basic Materials	0.00
% Communication Services	0.00
% Consumer Cyclical	1.53
% Consumer Defensive	0.00
% Healthcare	0.00
% Industrials	0.00
% Real Estate	0.00
% Technology	0.00
% Energy	6.25
% Financial Services	0.00
% Utilities	92.21

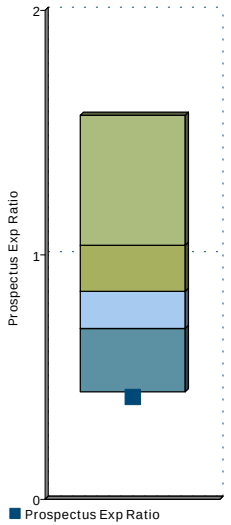
Credit Quality	
Avg Eff Duration	3.88
Effective Maturity	NA
Avg Credit Quality	B
AAA	10.26
AA	0.00
A	0.00
BBB	4.45
BB	32.71
B	39.86
Below B	11.70
NR/NA	1.03

Top Ten Holdings	
2 Year US Treasury Note Future Mar19	3.52%
US 10 Year Note (CBT) Mar19	3.34%
First Data Corporation 7%	1.68%
US 5 Year Note (CBT) Mar19	1.63%
DISH DBS Corporation 7.75%	1.35%
Wind Tre S.p.A. 5%	1.11%
Calpine Corporation 5.75%	1.03%
Bombardier Inc. 7.5%	0.99%
Wand Merger Corporation 9.12%	0.84%
Clear Channel Worldwide Holdings Inc. 7.62%	0.79%

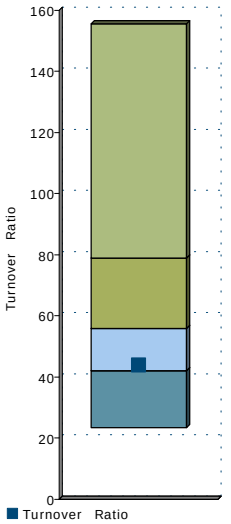
Portfolio Information	
Ticker	PHYQX
Morningstar Category	High Yield Bond
Avg Mkt Cap $MM	9718.33
Cat Med Mkt Cap $MM	3475.71
Net Assets $MM	7300.00
Turnover Ratio	44.00
% Assets in Top 10 Holdings	16.29
Total Number of Holdings	509.00
Manager Name	Robert Spano
Manager Tenure	11.22
Fund Incept Date	03/29/1979
Prospectus Exp Ratio	0.42
Phone Number	800-225-1852

Portfolio Ratings	
Mstar Rating	★★★★★
3 Year Mstar Rating	★★★★★
% Rank Cat 3 Yr	9
5 Year Mstar Rating	★★★★★
% Rank Cat 5 Yr	4
10 Year Mstar Rating	★★★★
% Rank Cat 10 Yr	22

Expense Ratio vs. Peer Group



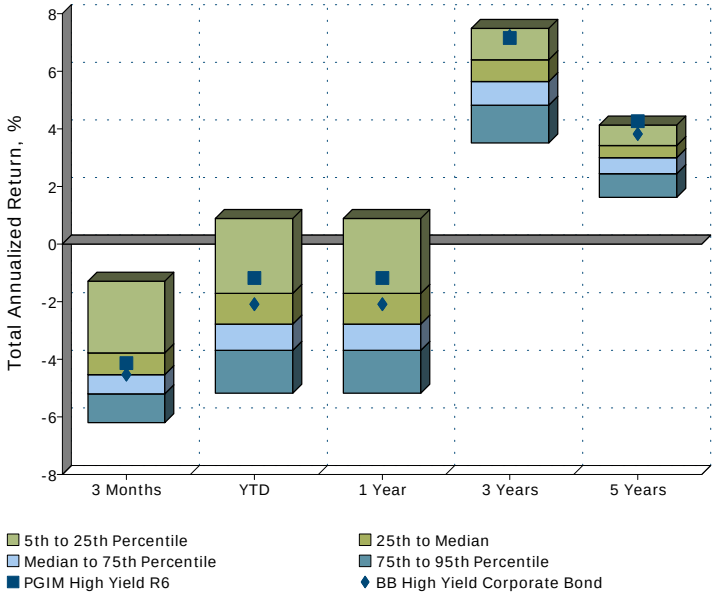
Turnover Ratio vs. Peer Group



Investment Strategy Summary

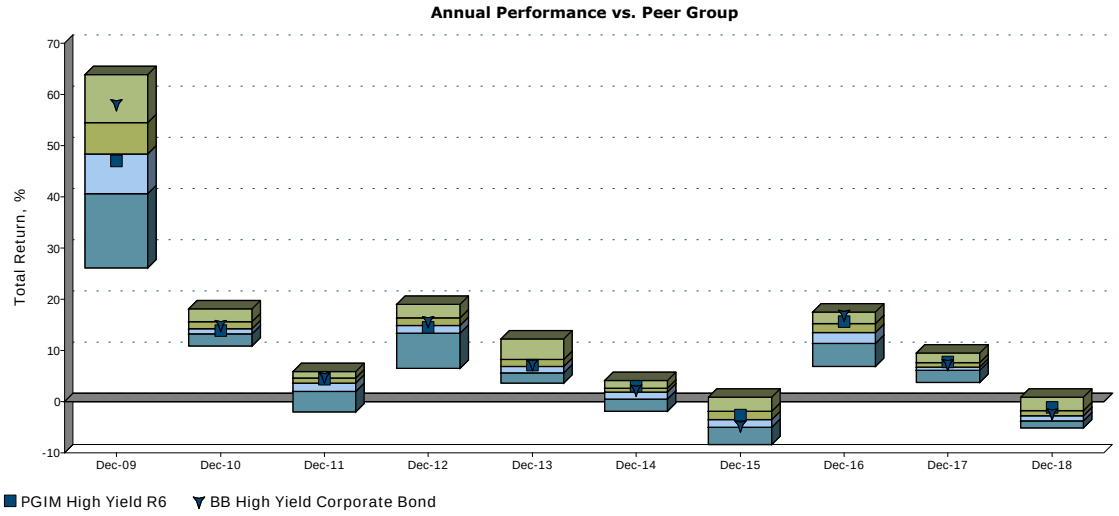
The investment seeks to maximize current income; and capital appreciation is a secondary objective. The fund normally invests at least 80% of its investable assets in a diversified portfolio of high yield fixed-income instruments rated Ba or lower by Moody's Investors Service (Moody's) or BB or lower 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 vs. Peer Group

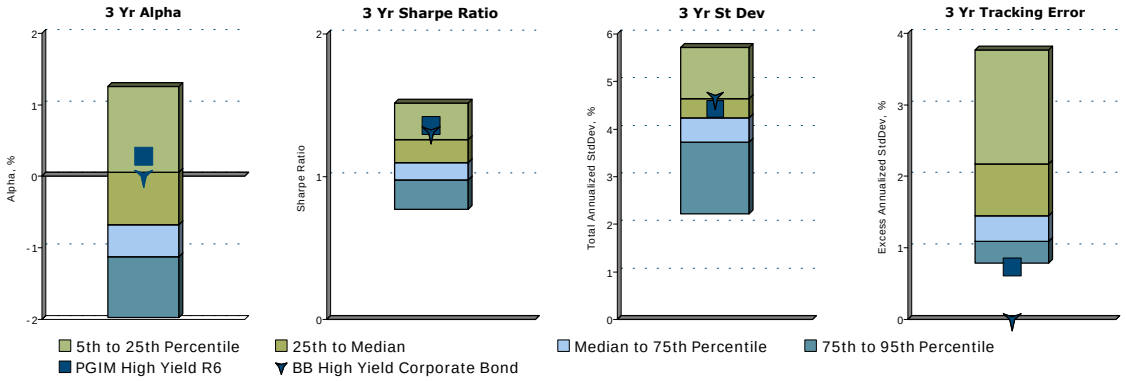


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
PGIM High Yield R6	-4.14	-1.18	-1.18	7.16	4.28
BB High Yield Corporate Bond	-4.53	-2.08	-2.08	7.23	3.83
Universe(5%)	-1.29	0.89	0.89	7.48	4.14
Universe(25%)	-3.78	-1.72	-1.72	6.41	3.41
Universe(Median)	-4.54	-2.77	-2.77	5.63	2.99
Universe(75%)	-5.21	-3.70	-3.70	4.82	2.44
Universe(95%)	-6.20	-5.18	-5.18	3.52	1.62

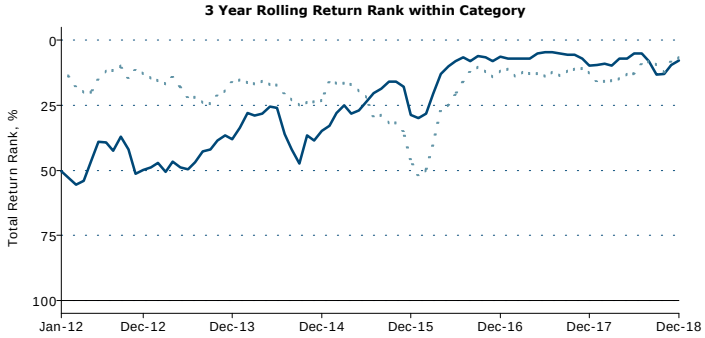
PGIM High Yield R6

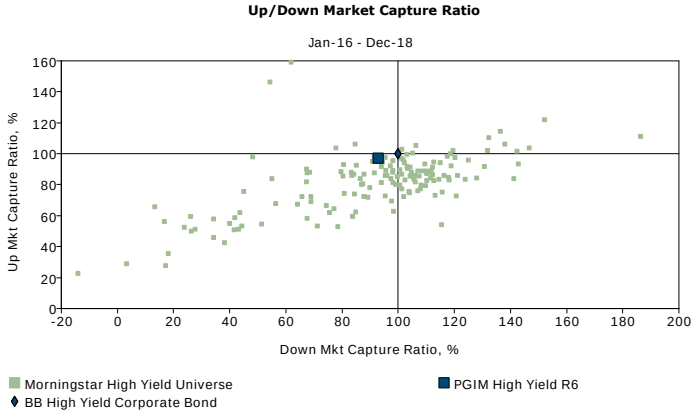


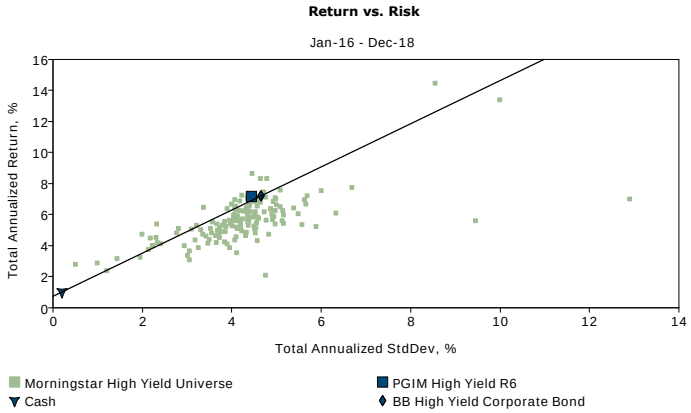
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
PGIM High Yield R6	46.99	13.84	4.43	14.45	7.15	2.95	-2.68	15.61	7.70	-1.18
BB High Yield Corporate Bond	58.21	15.12	4.98	15.81	7.44	2.45	-4.47	17.13	7.50	-2.08



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
PGIM High Yield R6	0.28	0.94	97.72	1.36	4.43	0.74	12.69
BB High Yield Corporate Bond	0.00	1.00	100.00	1.31	4.66	0.00	11.30
Universe(5%)	1.25	1.17	97.52	1.52	5.72	3.77	23.29
Universe(25%)	0.06	0.95	95.38	1.26	4.64	2.17	10.79
Universe(Median)	-0.68	0.88	92.55	1.10	4.23	1.45	7.70
Universe(75%)	-1.12	0.76	86.69	0.98	3.73	1.09	5.72
Universe(95%)	-1.97	0.41	48.26	0.77	2.22	0.79	3.51







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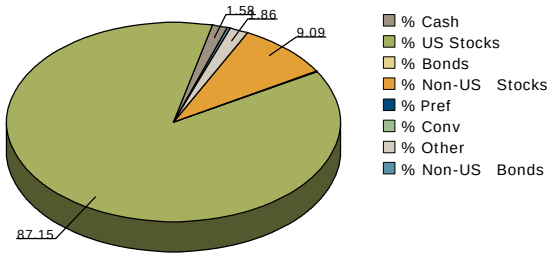
Data as of 12/31/2018

Vanguard Equity-Income Adm



Portfolio Region	
% United States	90.55
% Canada	4.22
% Latin America	0.04
% United Kingdom	1.17
% Eurozone	1.22
% Europe - ex Euro	2.58
% Europe - Emerging	0.00
% Africa	0.00
% Middle East	0.00
% Japan	0.00
% Australasia	0.00
% Asia - Developed	0.22
% Asia - Emerging	0.00

Portfolio Structure	
% Cash	1.58
% US Stocks	87.15
% Bonds	0.05
% Non-US Stocks	9.09
% Pref	0.00
% Conv	0.00
% Other	1.86
% Non-US Bonds	0.27

Sector Allocation	
% Basic Materials	3.66
% Communication Services	5.83
% Consumer Cyclical	4.33
% Consumer Defensive	12.92
% Healthcare	15.56
% Industrials	11.22
% Real Estate	0.92
% Technology	9.97
% Energy	11.59
% Financial Services	16.34
% Utilities	7.67

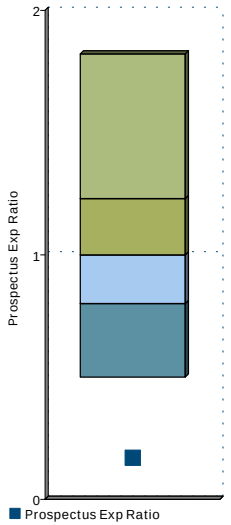
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
JPMorgan Chase & Co	4.18%
Johnson & Johnson	3.26%
Verizon Communications Inc	2.75%
Chevron Corp	2.52%
Cisco Systems Inc	2.50%
Intel Corp	2.27%
Pfizer Inc	2.26%
Exxon Mobil Corp	2.07%
Eli Lilly and Co	2.00%
Merck & Co Inc	1.94%

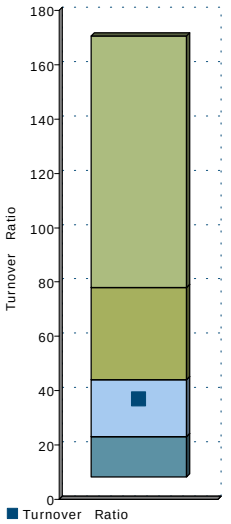
Portfolio Information	
Ticker	VEIRX
Morningstar Category	Large Value
Avg Mkt Cap $MM	90343.41
Cat Med Mkt Cap $MM	101701.36
Net Assets $MM	30085.00
Turnover Ratio	37.00
% Assets in Top 10 Holdings	25.74
Total Number of Holdings	203.00
Manager Name	James P. Stetler
Manager Tenure	15.01
Fund Incept Date	03/21/1988
Prospectus Exp Ratio	0.17
Phone Number	800-662-7447

Portfolio Ratings	
Mstar Rating	★★★★
3 Year Mstar Rating	★★★★
% Rank Cat 3 Yr	16
5 Year Mstar Rating	★★★★
% Rank Cat 5 Yr	10
10 Year Mstar Rating	★★★★
% Rank Cat 10 Yr	18

Expense Ratio vs. Peer Group



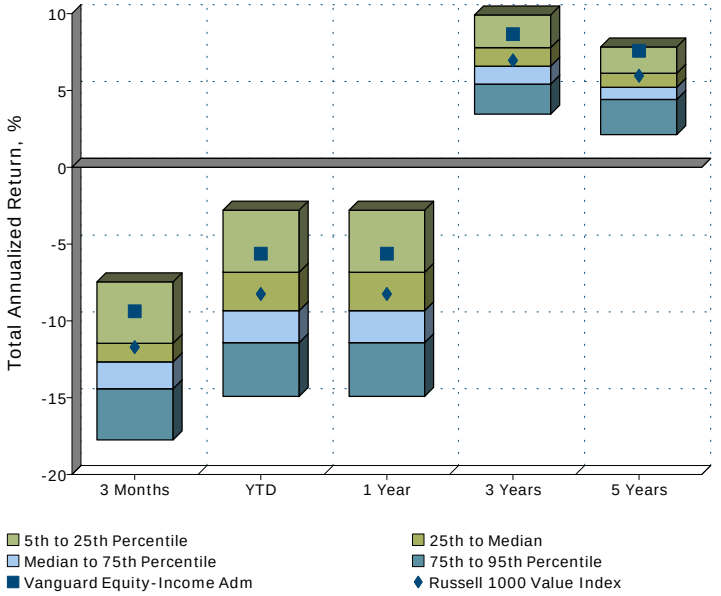
Turnover Ratio vs. Peer Group



Investment Strategy Summary

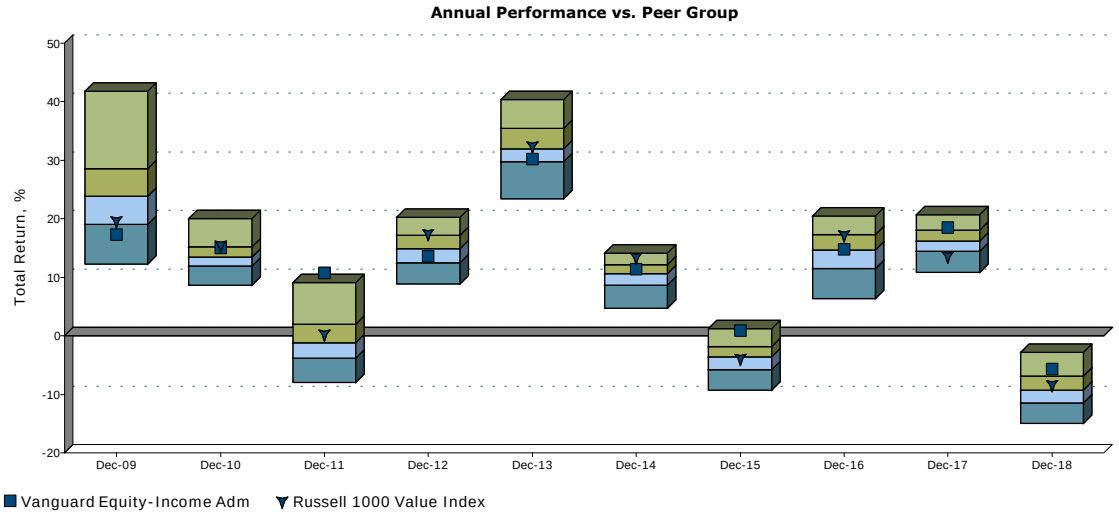
The investment seeks to provide an above-average level of current income and reasonable long-term capital appreciation. The fund invests mainly in common stocks of mid-size and large companies whose stocks typically pay above-average levels of dividend income and are, in the opinion of the purchasing 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 vs. Peer Group

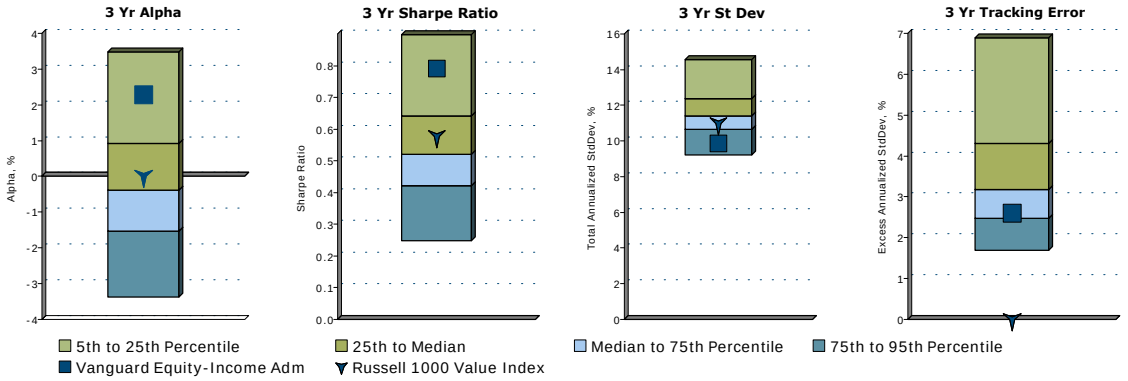


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Vanguard Equity-Income Adm	-9.36	-5.65	-5.65	8.68	7.60
Russell 1000 Value Index	-11.72	-8.27	-8.27	6.95	5.95
Universe(5%)	-7.44	-2.80	-2.80	9.93	7.82
Universe(25%)	-11.46	-6.84	-6.84	7.80	6.12
Universe(Median)	-12.66	-9.33	-9.33	6.60	5.23
Universe(75%)	-14.43	-11.42	-11.42	5.42	4.42
Universe(95%)	-17.74	-14.93	-14.93	3.47	2.13

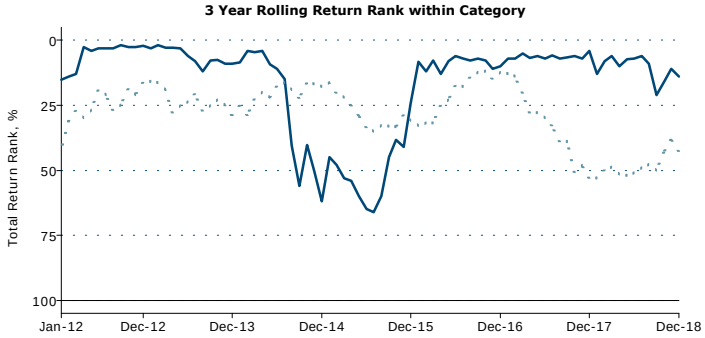
Vanguard Equity-Income Adm

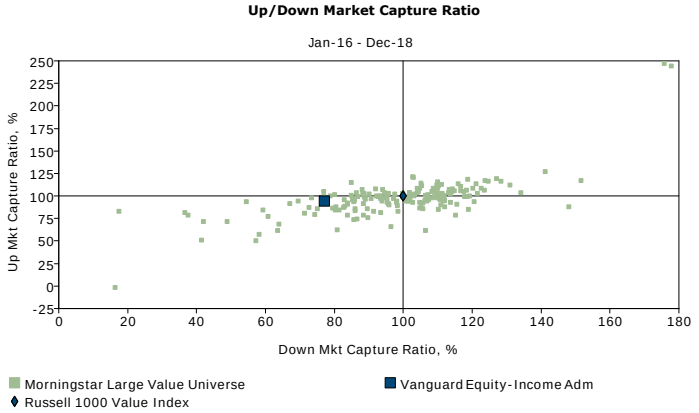


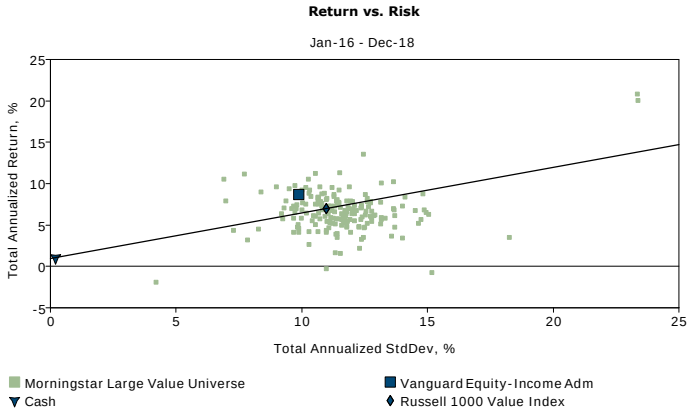
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vanguard Equity-Income Adm	17.26	14.99	10.69	13.58	30.19	11.38	0.86	14.82	18.49	-5.65
Russell 1000 Value Index	19.69	15.51	0.39	17.51	32.53	13.45	-3.83	17.34	13.66	-8.27



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Vanguard Equity-Income Adm	2.28	0.88	94.96	0.79	9.88	2.61	2.90
Russell 1000 Value Index	0.00	1.00	100.00	0.58	10.98	0.00	1.66
Universe(5%)	3.48	1.22	97.78	0.90	14.57	6.89	3.64
Universe(25%)	0.93	1.08	96.29	0.64	12.38	4.31	1.97
Universe(Median)	-0.39	1.01	92.99	0.52	11.41	3.18	1.43
Universe(75%)	-1.53	0.92	88.58	0.42	10.64	2.48	1.04
Universe(95%)	-3.38	0.72	70.83	0.25	9.21	1.70	0.52







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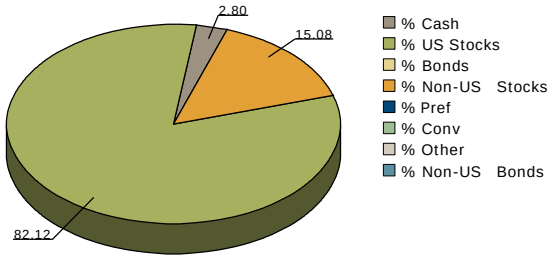
Vanguard PRIMECAP Core Inv



Portfolio Region	
% United States	84.49
% Canada	0.38
% Latin America	0.00
% United Kingdom	2.74
% Eurozone	3.89
% Europe - ex Euro	3.92
% Europe - Emerging	0.00
% Africa	0.00
% Middle East	0.00
% Japan	1.95
% Australasia	0.00
% Asia - Developed	0.76
% Asia - Emerging	1.88

Portfolio Structure	
% Cash	2.80
% US Stocks	82.12
% Bonds	0.00
% Non-US Stocks	15.08
% Pref	0.00
% Conv	0.00
% Other	0.00
% Non-US Bonds	0.00

Sector Allocation	
% Basic Materials	0.66
% Communication Services	0.74
% Consumer Cyclical	11.20
% Consumer Defensive	0.49
% Healthcare	23.59
% Industrials	20.25
% Real Estate	0.01
% Technology	31.41
% Energy	0.70
% Financial Services	10.94
% Utilities	0.00

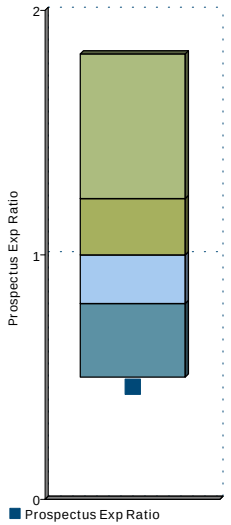
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
Southwest Airlines Co	4.82%
Eli Lilly and Co	4.01%
JPMorgan Chase & Co	3.31%
Amgen Inc	3.31%
Texas Instruments Inc	2.87%
Biogen Inc	2.60%
Microsoft Corp	2.53%
AstraZeneca PLC ADR	2.26%
NetApp Inc	1.99%
FedEx Corp	1.96%

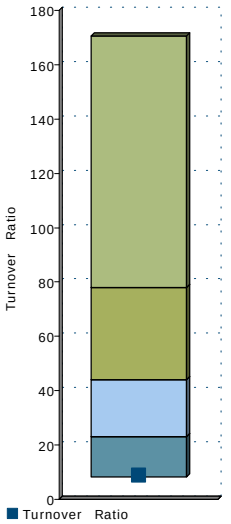
Portfolio Information	
Ticker	VPCCX
Morningstar Category	Large Blend
Avg Mkt Cap $MM	67225.92
Cat Med Mkt Cap $MM	161637.69
Net Assets $MM	9730.00
Turnover Ratio	9.00
% Assets in Top 10 Holdings	29.65
Total Number of Holdings	153.00
Manager Name	Alfred W. Mordecai
Manager Tenure	14.07
Fund Incept Date	12/09/2004
Prospectus Exp Ratio	0.46
Phone Number	800-662-7447

Portfolio Ratings	
Mstar Rating	★★★★★
3 Year Mstar Rating	★★★★★
% Rank Cat 3 Yr	4
5 Year Mstar Rating	★★★★★
% Rank Cat 5 Yr	1
10 Year Mstar Rating	★★★★★
% Rank Cat 10 Yr	3

Expense Ratio vs. Peer Group



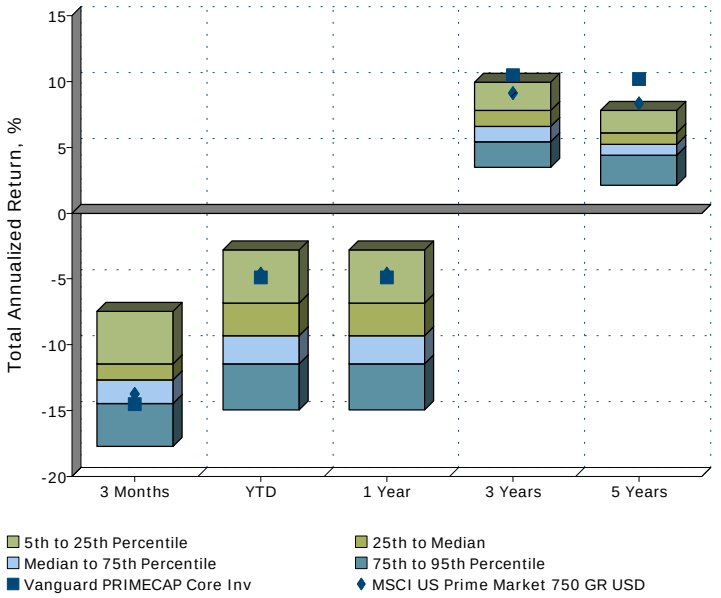
Turnover Ratio vs. Peer Group



Investment Strategy Summary

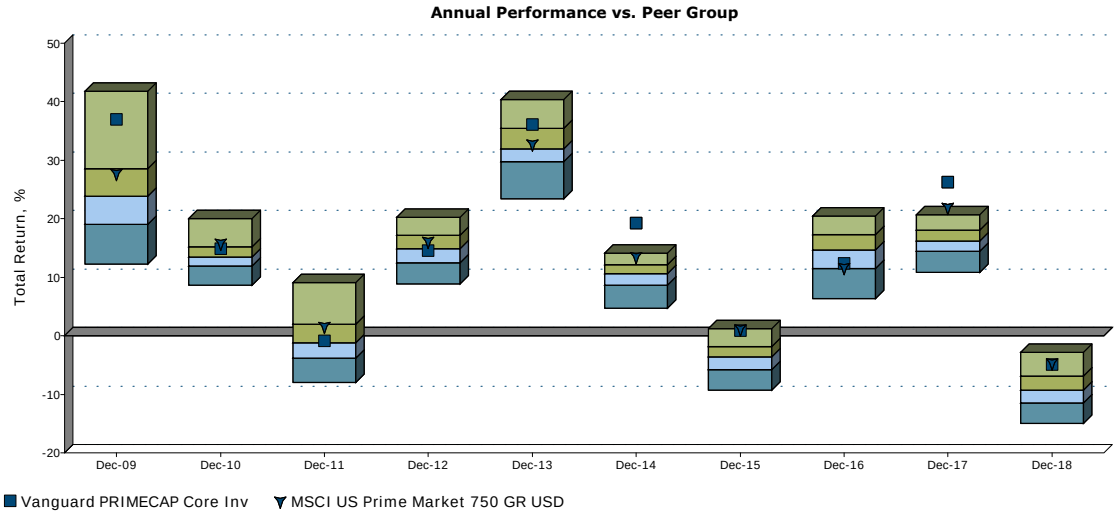
The investment seeks to provide long-term capital appreciation. The fund invests in stocks that its advisor believes offer a good balance between reasonable valuations and attractive growth prospects relative to their peers. Stocks selected for the fund typically have earnings growth potential that, 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 vs. Peer Group

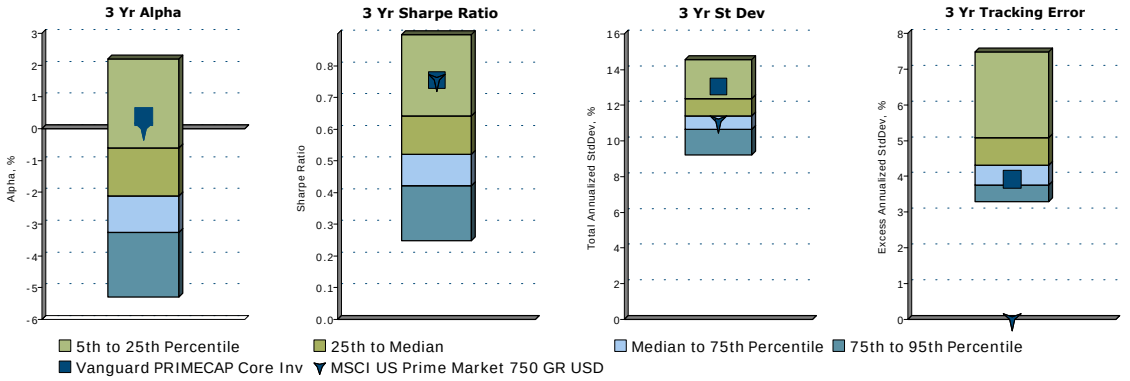


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Vanguard PRIMECAP Core Inv	-14.50	-4.90	-4.90	10.48	10.18
MSCI US Prime Market 750 GR USD	-13.75	-4.61	-4.61	9.13	8.36
Universe(5%)	-7.44	-2.80	-2.80	9.93	7.82
Universe(25%)	-11.46	-6.84	-6.84	7.80	6.12
Universe(Median)	-12.66	-9.33	-9.33	6.60	5.23
Universe(75%)	-14.43	-11.42	-11.42	5.42	4.42
Universe(95%)	-17.74	-14.93	-14.93	3.47	2.13

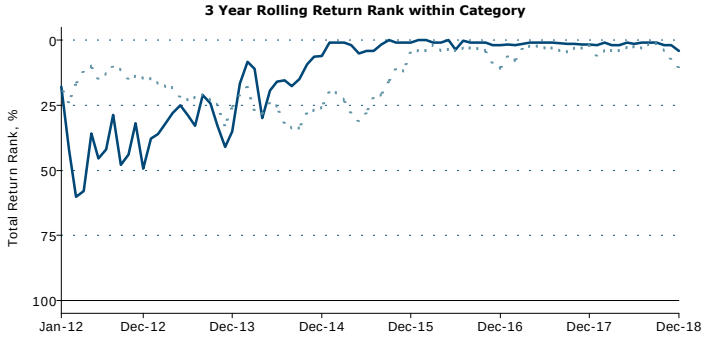
Vanguard PRIMECAP Core Inv

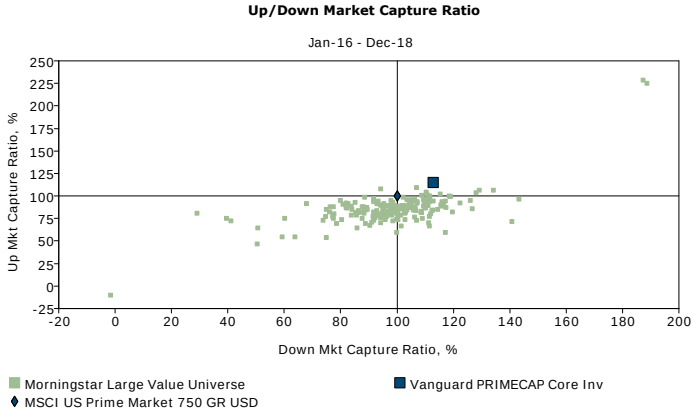


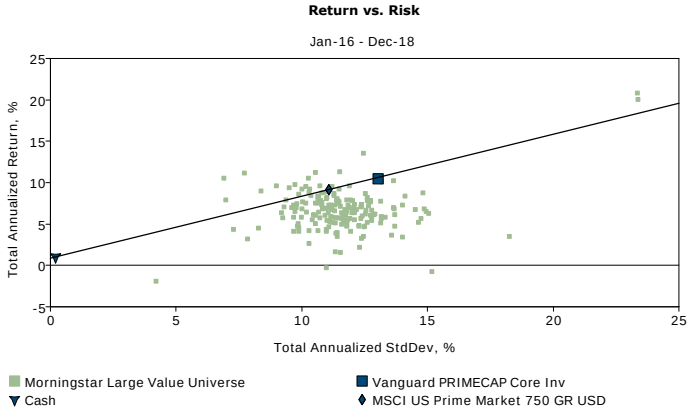
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vanguard PRIMECAP Core Inv	36.96	14.88	-0.86	14.57	36.14	19.29	0.94	12.35	26.23	-4.90
MSCI US Prime Market 750 GR USD	27.80	15.92	1.65	16.18	32.83	13.58	1.22	11.72	21.97	-4.61



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Vanguard PRIMECAP Core Inv	0.39	1.13	92.22	0.75	13.04	3.92	2.48
MSCI US Prime Market 750 GR USD	0.00	1.00	100.00	0.75	11.09	0.00	2.57
Universe(5%)	2.20	1.15	92.21	0.90	14.57	7.48	3.64
Universe(25%)	-0.60	1.04	89.55	0.64	12.38	5.09	1.97
Universe(Median)	-2.11	0.96	87.34	0.52	11.41	4.31	1.43
Universe(75%)	-3.26	0.88	82.36	0.42	10.64	3.76	1.04
Universe(95%)	-5.29	0.69	70.55	0.25	9.21	3.28	0.52







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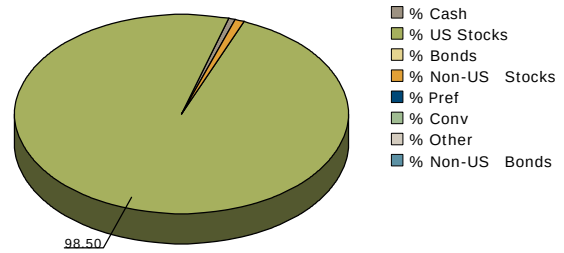
Vanguard Growth Index Admiral



Portfolio Region	
% United States	99.04
% Canada	0.18
% Latin America	0.00
% United Kingdom	0.78
% Eurozone	0.00
% Europe - ex Euro	0.00
% Europe - Emerging	0.00
% Africa	0.00
% Middle East	0.00
% Japan	0.00
% Australasia	0.00
% Asia - Developed	0.00
% Asia - Emerging	0.00

Portfolio Structure	
% Cash	0.53
% US Stocks	98.50
% Bonds	0.01
% Non-US Stocks	0.96
% Pref	0.00
% Conv	0.00
% Other	0.00
% Non-US Bonds	0.00

Sector Allocation	
% Basic Materials	2.38
% Communication Services	3.06
% Consumer Cyclical	19.60
% Consumer Defensive	5.33
% Healthcare	12.54
% Industrials	10.88
% Real Estate	4.02
% Technology	29.60
% Energy	3.50
% Financial Services	9.10
% Utilities	0.00

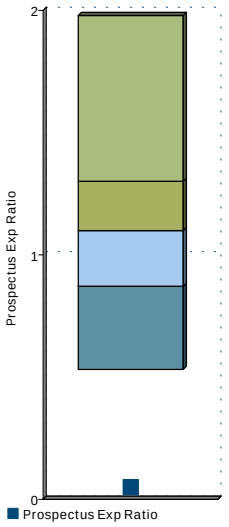
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
Apple Inc	6.87%
Amazon.com Inc	6.20%
Facebook Inc A	3.00%
Alphabet Inc A	2.93%
Alphabet Inc Class C	2.89%
Visa Inc Class A	2.23%
The Home Depot Inc	1.83%
Boeing Co	1.67%
Mastercard Inc A	1.64%
Comcast Corp Class A	1.58%

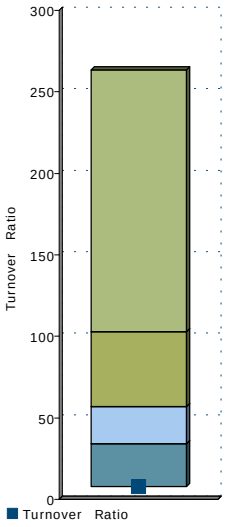
Portfolio Information	
Ticker	VIGAX
Morningstar Category	Large Growth
Avg Mkt Cap $MM	90412.56
Cat Med Mkt Cap $MM	169181.66
Net Assets $MM	73064.00
Turnover Ratio	8.00
% Assets in Top 10 Holdings	30.83
Total Number of Holdings	315.00
Manager Name	Gerard C. O'Reilly
Manager Tenure	24.02
Fund Incept Date	11/02/1992
Prospectus Exp Ratio	0.05
Phone Number	800-662-7447

Portfolio Ratings	
Mstar Rating	★★★★
3 Year Mstar Rating	★★★
% Rank Cat 3 Yr	46
5 Year Mstar Rating	★★★
% Rank Cat 5 Yr	41
10 Year Mstar Rating	★★★★
% Rank Cat 10 Yr	35

Expense Ratio vs. Peer Group



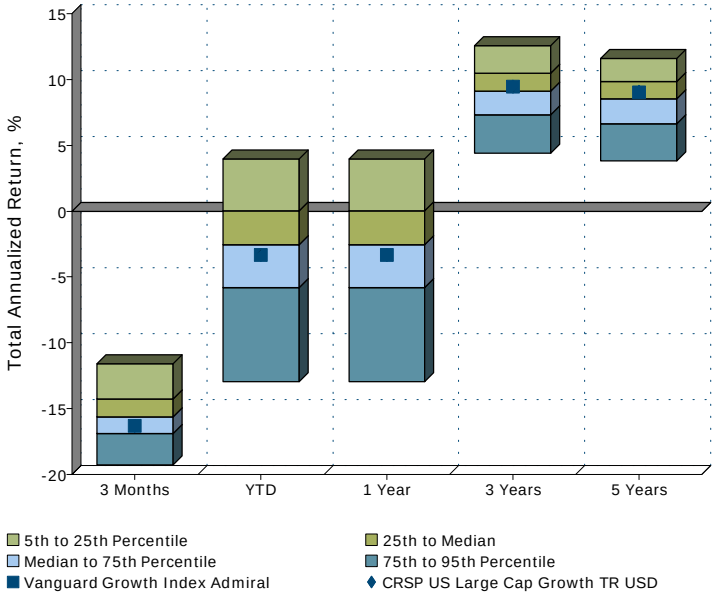
Turnover Ratio vs. Peer Group



Investment Strategy Summary

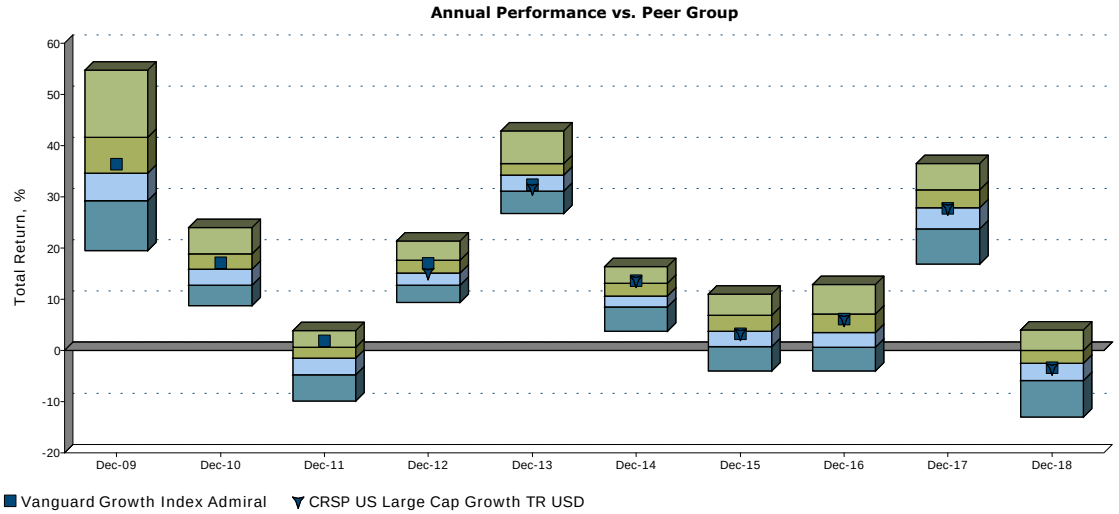
The investment seeks to track the performance of a benchmark index that measures the investment return of large-capitalization growth stocks. The fund employs an indexing investment approach designed to track the performance of the CRSP US Large Cap Growth Index, a broadly diversified index predominantly 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.

Performance vs. Peer Group

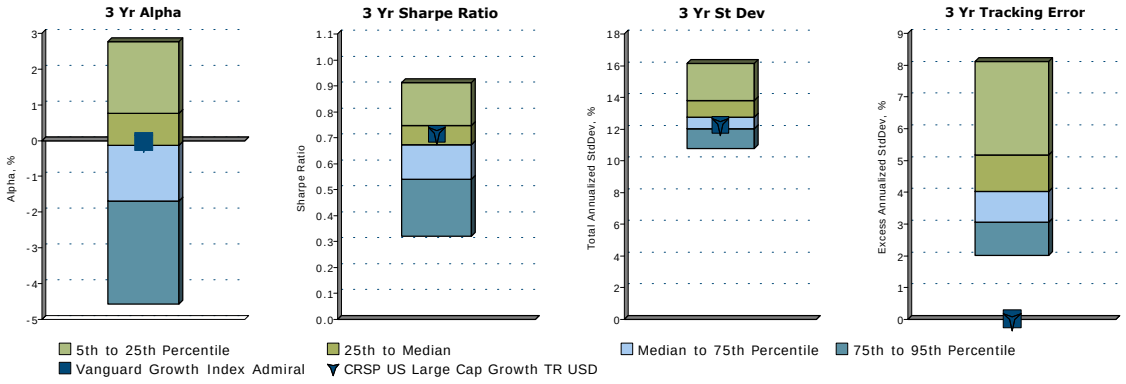


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Vanguard Growth Index Admiral	-16.30	-3.34	-3.34	9.45	9.00
CRSP US Large Cap Growth TR USD	-16.32	-3.34	-3.34	9.47	9.05
Universe(5%)	-11.57	3.96	3.96	12.58	11.62
Universe(25%)	-14.26	0.04	0.04	10.48	9.83
Universe(Median)	-15.61	-2.56	-2.56	9.11	8.53
Universe(75%)	-16.87	-5.82	-5.82	7.32	6.65
Universe(95%)	-19.28	-12.96	-12.96	4.41	3.80

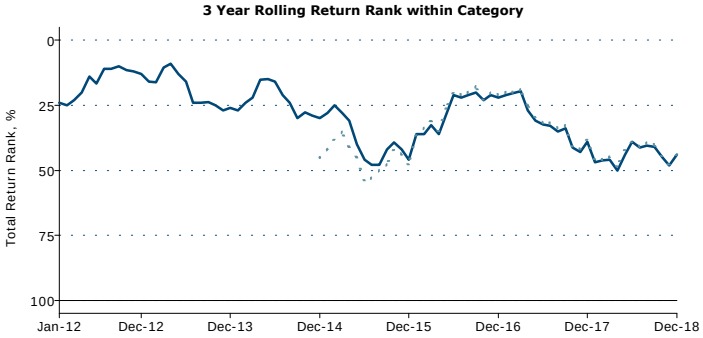
Vanguard Growth Index Admiral

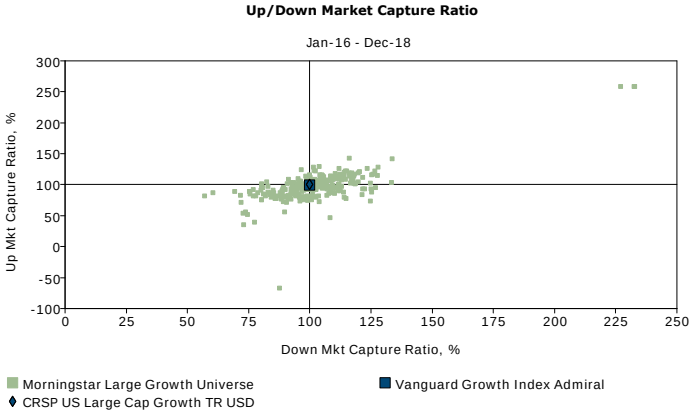


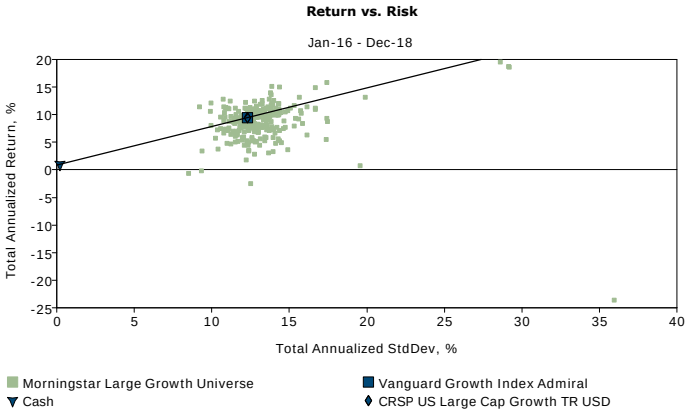
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vanguard Growth Index Admiral	36.42	17.12	1.87	17.01	32.40	13.63	3.30	6.12	27.80	-3.34
CRSP US Large Cap Growth TR USD	NA	NA	NA	15.20	31.75	13.69	3.38	6.16	27.86	-3.34



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Vanguard Growth Index Admiral	-0.02	1.00	100.00	0.72	12.29	0.03	2.30
CRSP US Large Cap Growth TR USD	0.00	1.00	100.00	0.72	12.30	0.00	2.30
Universe(5%)	2.76	1.18	97.44	0.91	16.13	8.12	3.64
Universe(25%)	0.76	1.06	94.76	0.75	13.82	5.17	2.48
Universe(Median)	-0.14	0.99	91.20	0.67	12.75	4.04	2.01
Universe(75%)	-1.68	0.92	86.51	0.54	12.04	3.05	1.42
Universe(95%)	-4.56	0.80	71.64	0.32	10.77	2.01	0.70







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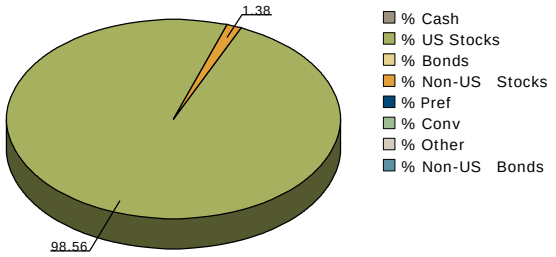
Vanguard Mid-Cap Value Index Admiral



Portfolio Region	
% United States	98.62
% Canada	0.00
% Latin America	0.00
% United Kingdom	0.31
% Eurozone	0.00
% Europe - ex Euro	0.00
% Europe - Emerging	0.00
% Africa	0.00
% Middle East	0.00
% Japan	0.00
% Australasia	0.00
% Asia - Developed	0.56
% Asia - Emerging	0.50

Portfolio Structure	
% Cash	0.05
% US Stocks	98.56
% Bonds	0.01
% Non-US Stocks	1.38
% Pref	0.00
% Conv	0.00
% Other	0.00
% Non-US Bonds	0.00

Sector Allocation	
% Basic Materials	5.83
% Communication Services	1.97
% Consumer Cyclical	19.84
% Consumer Defensive	5.97
% Healthcare	5.39
% Industrials	8.54
% Real Estate	5.65
% Technology	10.46
% Energy	3.83
% Financial Services	20.66
% Utilities	11.86

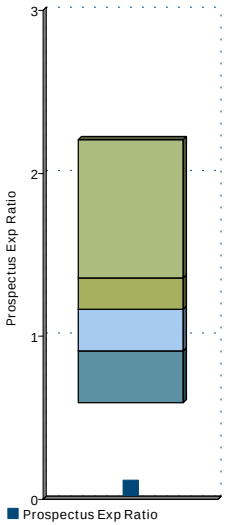
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
WEC Energy Group Inc	1.15%
M&T Bank Corp	1.10%
DTE Energy Co	1.09%
Eversource Energy	1.09%
Motorola Solutions Inc	1.07%
Clorox Co	1.07%
Dell-VMWare Tracking Stock V	1.06%
Willis Towers Watson PLC	1.05%
KeyCorp	0.97%
Royal Caribbean Cruises Ltd	0.95%

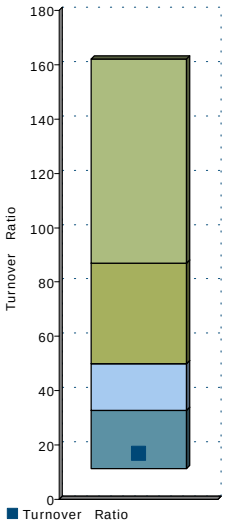
Portfolio Information	
Ticker	VMVAX
Morningstar Category	Mid-Cap Value
Avg Mkt Cap $MM	12808.34
Cat Med Mkt Cap $MM	10356.89
Net Assets $MM	16121.00
Turnover Ratio	17.00
% Assets in Top 10 Holdings	10.60
Total Number of Holdings	210.00
Manager Name	Donald M. Butler
Manager Tenure	12.38
Fund Incept Date	09/27/2011
Prospectus Exp Ratio	0.07
Phone Number	800-662-7447

Portfolio Ratings	
Mstar Rating	★★★★
3 Year Mstar Rating	★★★
% Rank Cat 3 Yr	43
5 Year Mstar Rating	★★★★
% Rank Cat 5 Yr	14
10 Year Mstar Rating	★★★★★
% Rank Cat 10 Yr	12

Expense Ratio vs. Peer Group



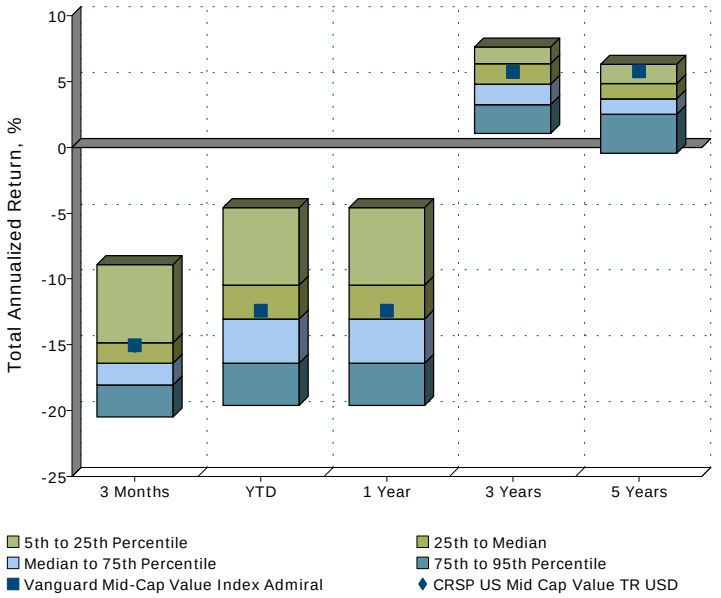
Turnover Ratio vs. Peer Group



Investment Strategy Summary

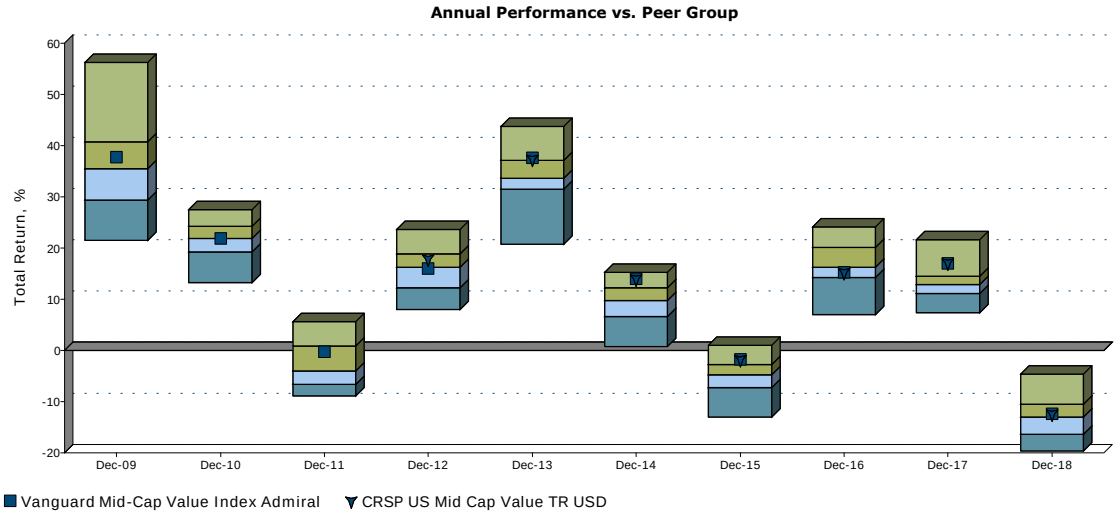
The investment seeks to track the performance of the CRSP US Mid Cap Value Index that measures the investment return of mid-capitalization value stocks. The fund employs an indexing investment approach designed to track the performance of the CRSP US Mid Cap Value Index, a broadly diversified index of 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 vs. Peer Group

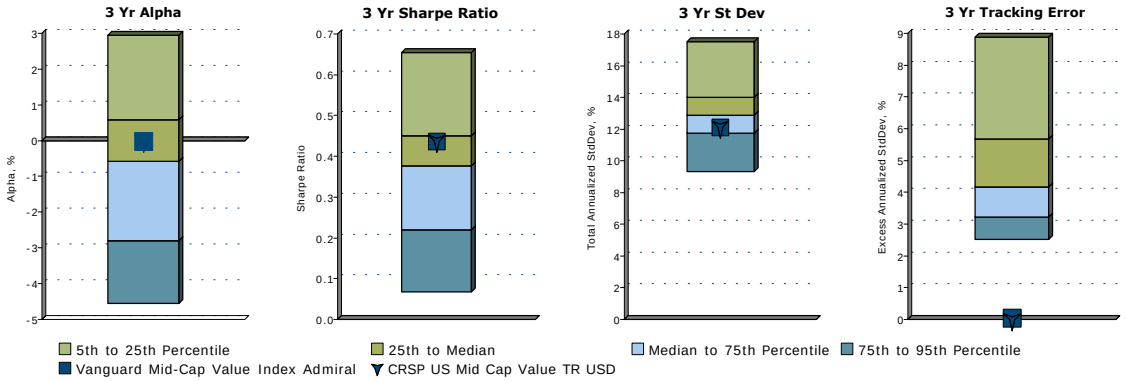


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Vanguard Mid-Cap Value Index Admiral	-15.06	-12.42	-12.42	5.71	5.75
CRSP US Mid Cap Value TR USD	-15.06	-12.42	-12.42	5.75	5.79
Universe(5%)	-8.89	-4.61	-4.61	7.62	6.31
Universe(25%)	-14.83	-10.45	-10.45	6.33	4.84
Universe(Median)	-16.40	-13.05	-13.05	4.81	3.69
Universe(75%)	-18.05	-16.39	-16.39	3.24	2.53
Universe(95%)	-20.50	-19.62	-19.62	1.08	-0.47

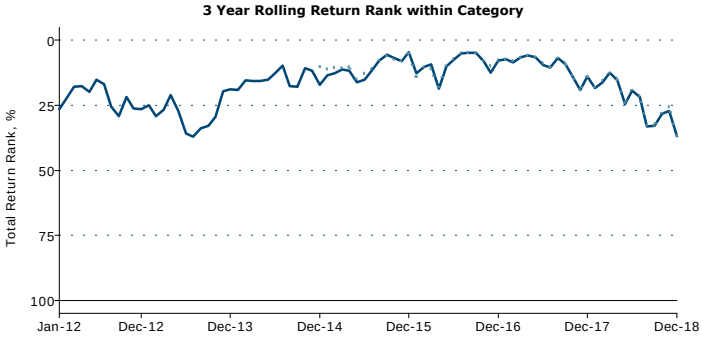
Vanguard Mid-Cap Value Index Admiral

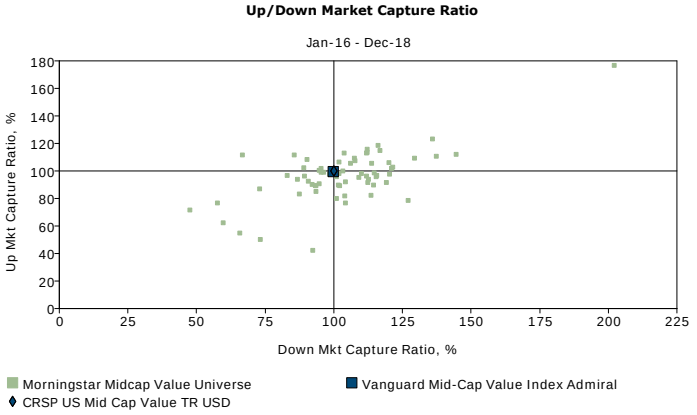


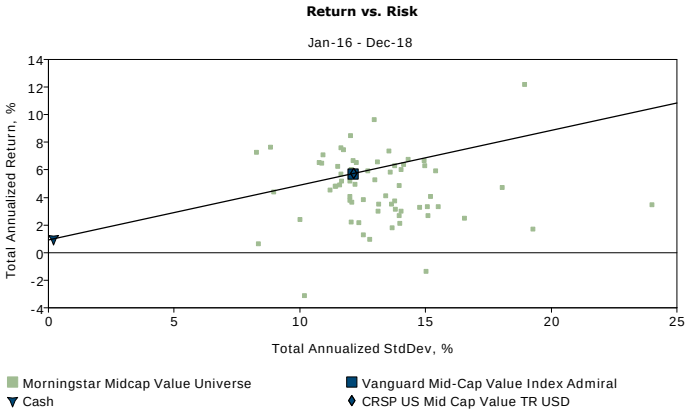
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vanguard Mid-Cap Value Index Admiral	37.74	21.82	-0.29	16.02	37.66	13.98	-1.80	15.26	17.04	-12.42
CRSP US Mid Cap Value TR USD	NA	NA	NA	17.90	37.38	14.05	-1.75	15.28	17.12	-12.42



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Vanguard Mid-Cap Value Index Admiral	-0.02	1.00	100.00	0.44	12.12	0.04	1.07
CRSP US Mid Cap Value TR USD	0.00	1.00	100.00	0.44	12.14	0.00	1.08
Universe(5%)	2.95	1.21	95.92	0.65	17.52	8.88	1.91
Universe(25%)	0.58	1.09	93.39	0.45	14.02	5.67	1.13
Universe(Median)	-0.57	1.01	91.02	0.38	12.88	4.17	0.87
Universe(75%)	-2.80	0.93	86.54	0.22	11.73	3.22	0.42
Universe(95%)	-4.56	0.57	56.45	0.07	9.34	2.51	0.14







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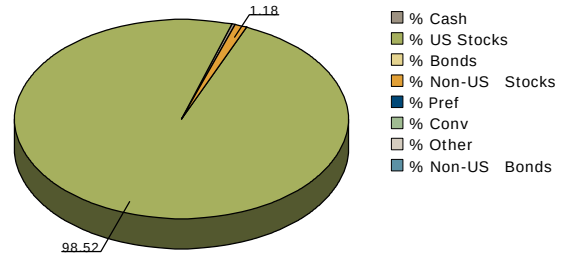
Vanguard Mid Cap Index Admiral



Portfolio Region	
% United States	98.82
% Canada	0.51
% Latin America	0.00
% United Kingdom	0.15
% Eurozone	0.00
% Europe - ex Euro	0.00
% Europe - Emerging	0.00
% Africa	0.00
% Middle East	0.00
% Japan	0.00
% Australasia	0.00
% Asia - Developed	0.27
% Asia - Emerging	0.25

Portfolio Structure	
% Cash	0.30
% US Stocks	98.52
% Bonds	0.00
% Non-US Stocks	1.18
% Pref	0.00
% Conv	0.00
% Other	0.00
% Non-US Bonds	0.00

Sector Allocation	
% Basic Materials	4.35
% Communication Services	1.45
% Consumer Cyclical	15.06
% Consumer Defensive	4.57
% Healthcare	9.82
% Industrials	14.19
% Real Estate	7.19
% Technology	18.33
% Energy	5.48
% Financial Services	13.75
% Utilities	5.81

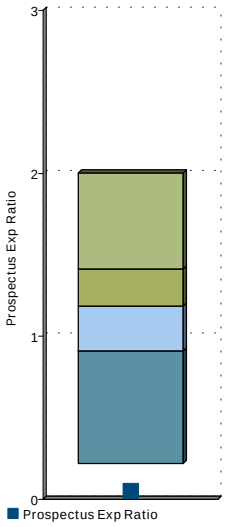
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
Edwards Lifesciences Corp	0.83%
Fiserv Inc	0.79%
Red Hat Inc	0.78%
Autodesk Inc	0.78%
Roper Technologies Inc	0.76%
Centene Corp	0.68%
Amphenol Corp Class A	0.65%
Concho Resources Inc	0.64%
Moody's Corporation	0.64%
Worldpay Inc Class A	0.64%

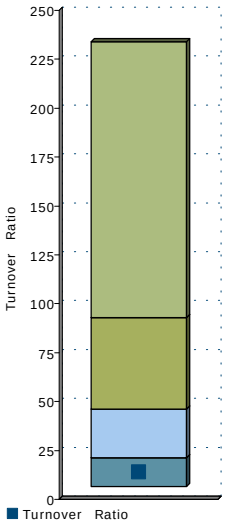
Portfolio Information	
Ticker	VIMAX
Morningstar Category	Mid-Cap Blend
Avg Mkt Cap $MM	14292.20
Cat Med Mkt Cap $MM	7848.72
Net Assets $MM	86953.00
Turnover Ratio	14.00
% Assets in Top 10 Holdings	7.18
Total Number of Holdings	368.00
Manager Name	Donald M. Butler
Manager Tenure	20.63
Fund Incept Date	05/21/1998
Prospectus Exp Ratio	0.05
Phone Number	800-662-7447

Portfolio Ratings	
Mstar Rating	★★★★
3 Year Mstar Rating	★★★
% Rank Cat 3 Yr	51
5 Year Mstar Rating	★★★★
% Rank Cat 5 Yr	15
10 Year Mstar Rating	★★★★★
% Rank Cat 10 Yr	10

Expense Ratio vs. Peer Group



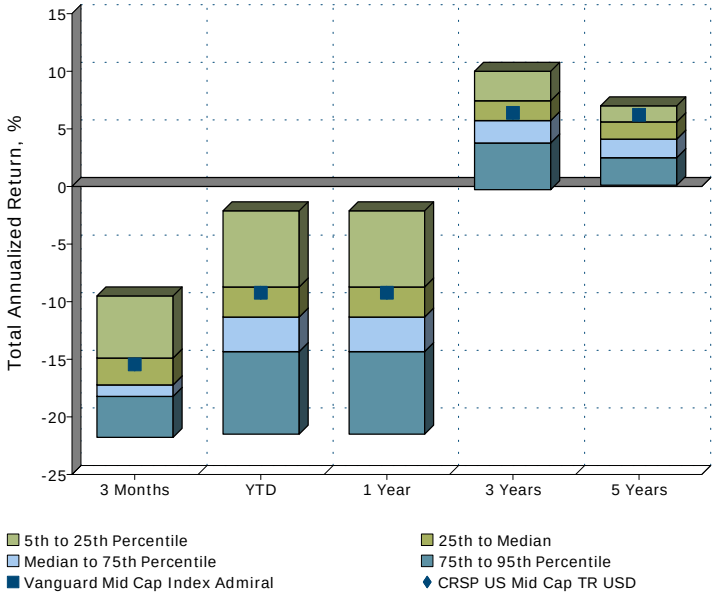
Turnover Ratio vs. Peer Group



Investment Strategy Summary

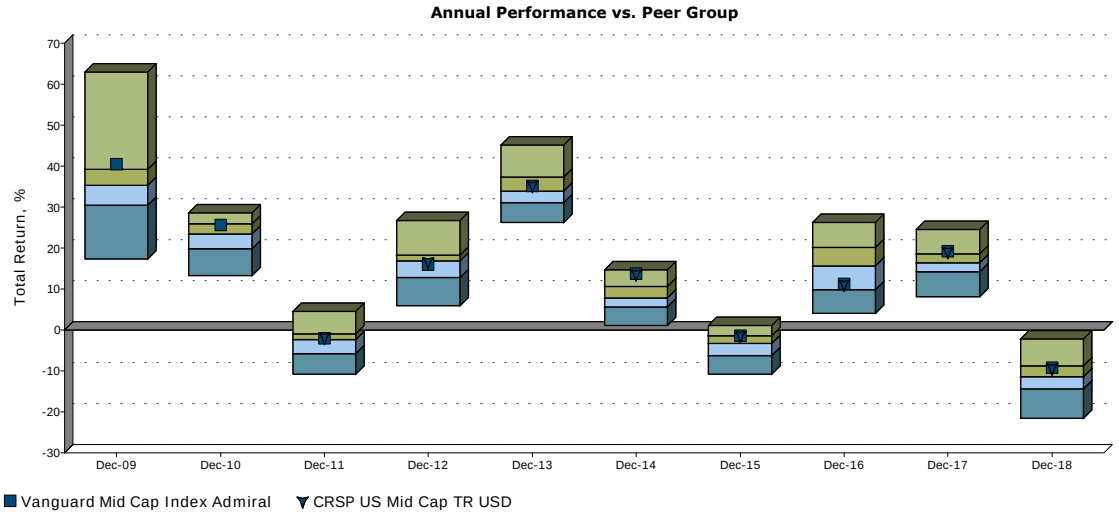
The investment seeks to track the performance of a benchmark index that measures the investment return of mid-capitalization stocks. The fund employs an indexing investment approach designed to track the performance of the CRSP US Mid Cap Index, a broadly diversified index of stocks of mid-size U.S. 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 vs. Peer Group

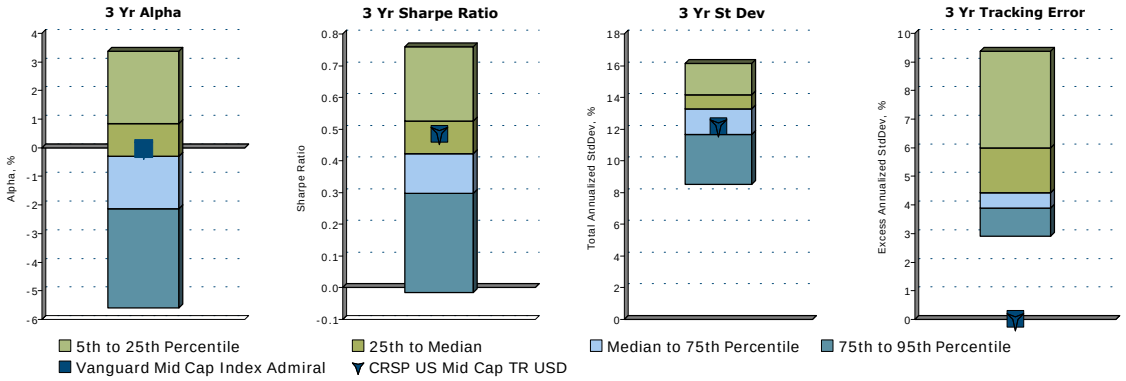


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Vanguard Mid Cap Index Admiral	-15.46	-9.23	-9.23	6.38	6.21
CRSP US Mid Cap TR USD	-15.46	-9.22	-9.22	6.40	6.24
Universe(5%)	-9.53	-2.13	-2.13	10.02	7.00
Universe(25%)	-14.91	-8.70	-8.70	7.45	5.63
Universe(Median)	-17.24	-11.33	-11.33	5.71	4.09
Universe(75%)	-18.23	-14.32	-14.32	3.76	2.48
Universe(95%)	-21.78	-21.51	-21.51	-0.26	0.11

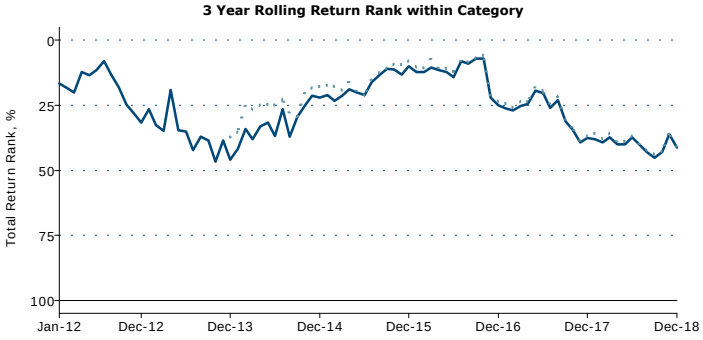
Vanguard Mid Cap Index Admiral

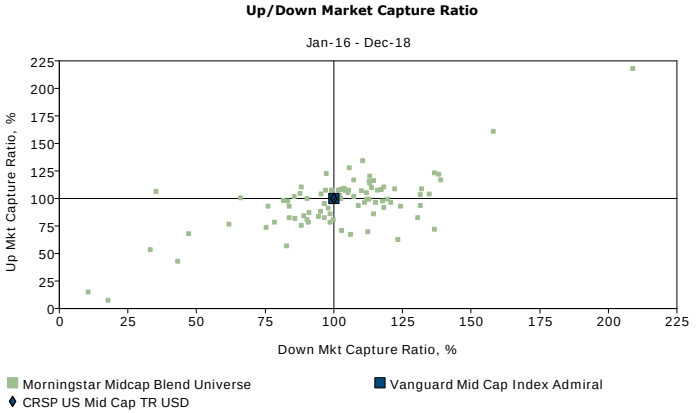


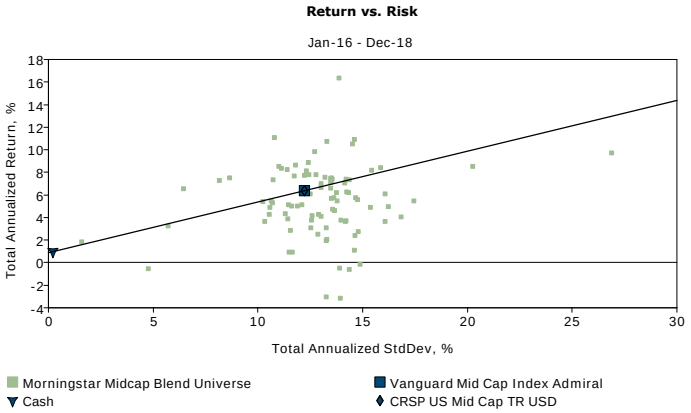
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vanguard Mid Cap Index Admiral	40.48	25.59	-1.97	15.99	35.15	13.76	-1.34	11.22	19.25	-9.23
CRSP US Mid Cap TR USD	NA	NA	-1.79	16.69	35.27	13.83	-1.28	11.25	19.30	-9.22



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Vanguard Mid Cap Index Admiral	-0.02	1.00	100.00	0.49	12.21	0.02	1.24
CRSP US Mid Cap TR USD	0.00	1.00	100.00	0.49	12.22	0.00	1.25
Universe(5%)	3.38	1.22	94.79	0.76	16.13	9.38	2.89
Universe(25%)	0.84	1.07	91.99	0.53	14.18	5.99	1.37
Universe(Median)	-0.30	1.01	88.78	0.42	13.27	4.42	0.99
Universe(75%)	-2.14	0.90	83.53	0.30	11.68	3.90	0.63
Universe(95%)	-5.59	0.58	66.66	-0.02	8.50	2.91	-0.03







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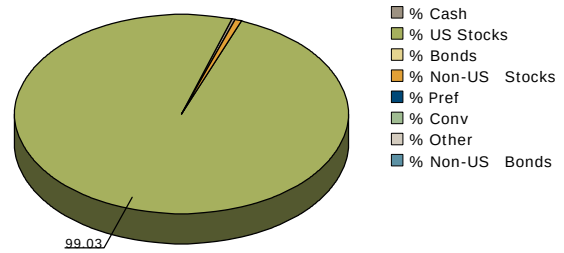
PGIM QMA Small-Cap Value R6



Portfolio Region	
% United States	99.34
% Canada	0.00
% Latin America	0.46
% United Kingdom	0.00
% Eurozone	0.00
% Europe - ex Euro	0.00
% Europe - Emerging	0.00
% Africa	0.19
% Middle East	0.00
% Japan	0.00
% Australasia	0.00
% Asia - Developed	0.00
% Asia - Emerging	0.00

Portfolio Structure	
% Cash	0.32
% US Stocks	99.03
% Bonds	0.00
% Non-US Stocks	0.65
% Pref	0.00
% Conv	0.00
% Other	0.00
% Non-US Bonds	0.00

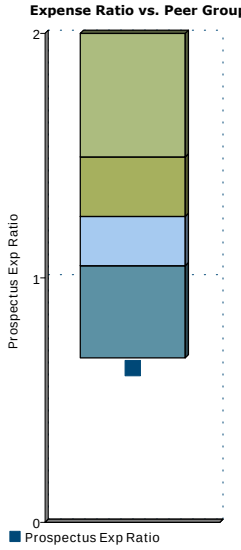
Sector Allocation	
% Basic Materials	5.05
% Communication Services	1.11
% Consumer Cyclical	15.57
% Consumer Defensive	2.47
% Healthcare	2.28
% Industrials	12.83
% Real Estate	18.51
% Technology	4.22
% Energy	3.88
% Financial Services	32.47
% Utilities	1.62

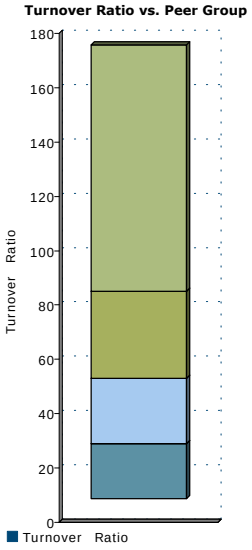
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
Tech Data Corp	1.31%
MGIC Investment Corp	1.18%
Radian Group Inc	1.16%
American Equity Investment Life Holding Co	1.13%
SkyWest Inc	1.11%
IBERIABANK Corp	1.04%
Iridium Communications Inc	0.98%
Triton International Ltd Ordinary Shares	0.98%
GATX Corp	0.93%
RLJ Lodging Trust	0.93%

Portfolio Information	
Ticker	TSVQX
Morningstar Category	Small Value
Avg Mkt Cap $MM	1575.30
Cat Med Mkt Cap $MM	2730.87
Net Assets $MM	1194.00
Turnover Ratio	NA
% Assets in Top 10 Holdings	10.75
Total Number of Holdings	348.00
Manager Name	Stephen Courtney
Manager Tenure	3.96
Fund Incept Date	01/05/1993
Prospectus Exp Ratio	0.63
Phone Number	800-225-1852

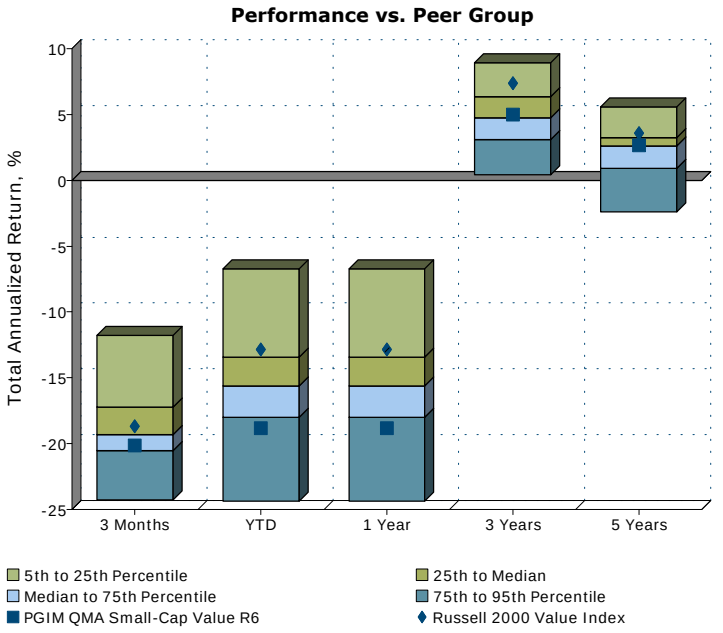
Portfolio Ratings	
Mstar Rating	★★★
3 Year Mstar Rating	★★★
% Rank Cat 3 Yr	50
5 Year Mstar Rating	★★★
% Rank Cat 5 Yr	40
10 Year Mstar Rating	★★★
% Rank Cat 10 Yr	57





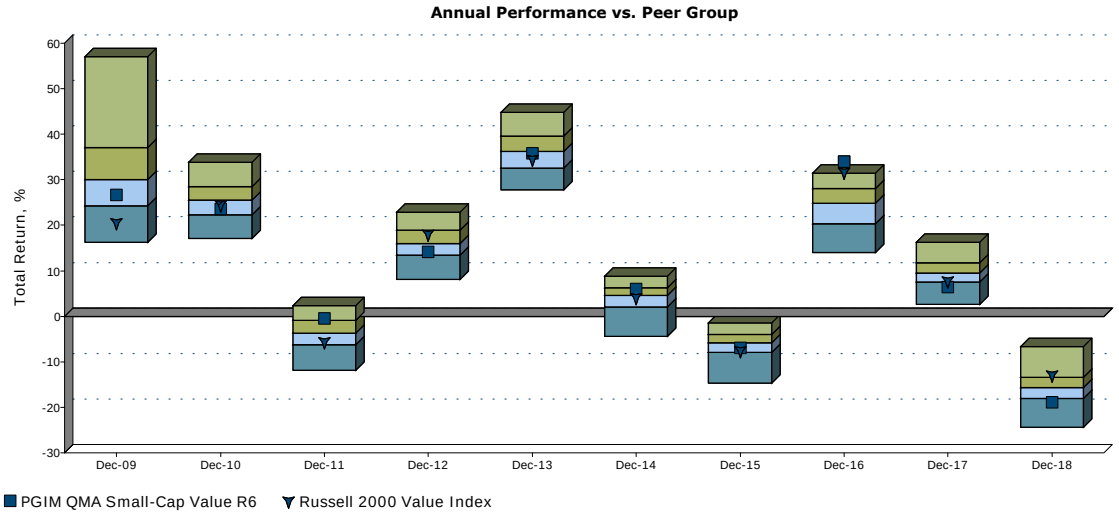
Investment Strategy Summary

The investment seeks above-average capital appreciation. The fund normally invests at least 80% of its investable assets in equity and equity-related securities of small-cap companies. The subadviser considers small-cap companies to be companies with market capitalizations within the market cap range of companies included in the Russell 2000 Index or the Standard & Poor's SmallCap 600 Index. Most assets will typically be invested in U.S. equity and equity-related securities, including up to 25% of total assets in real estate investment trusts (REITs).

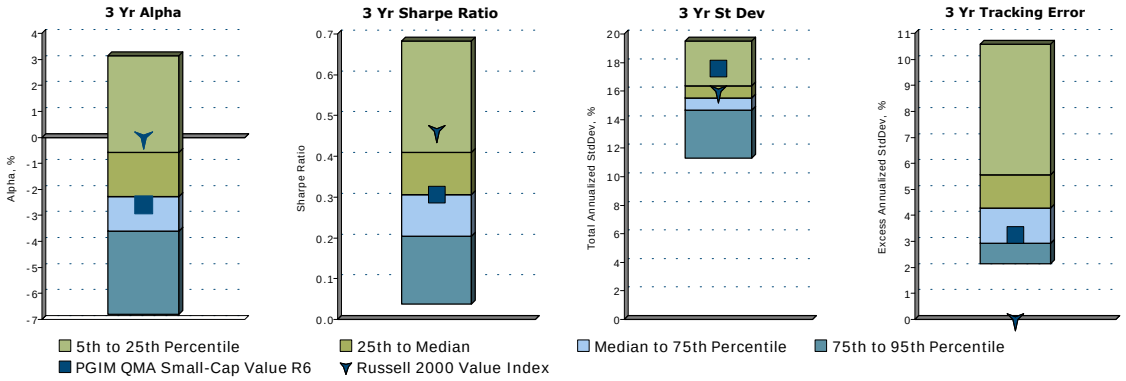


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
PGIM QMA Small-Cap Value R6	-20.13	-18.82	-18.82	5.00	2.67
Russell 2000 Value Index	-18.67	-12.86	-12.86	7.37	3.61
Universe(5%)	-11.76	-6.70	-6.70	8.95	5.59
Universe(25%)	-17.24	-13.45	-13.45	6.37	3.23
Universe(Median)	-19.32	-15.63	-15.63	4.74	2.60
Universe(75%)	-20.53	-18.02	-18.02	3.07	0.91
Universe(95%)	-24.26	-24.38	-24.38	0.41	-2.40

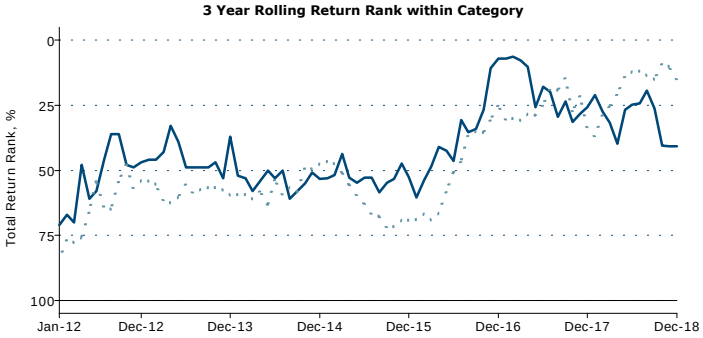
PGIM QMA Small-Cap Value R6

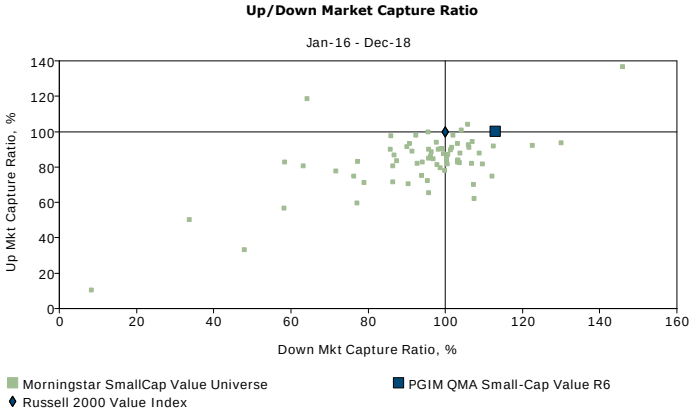


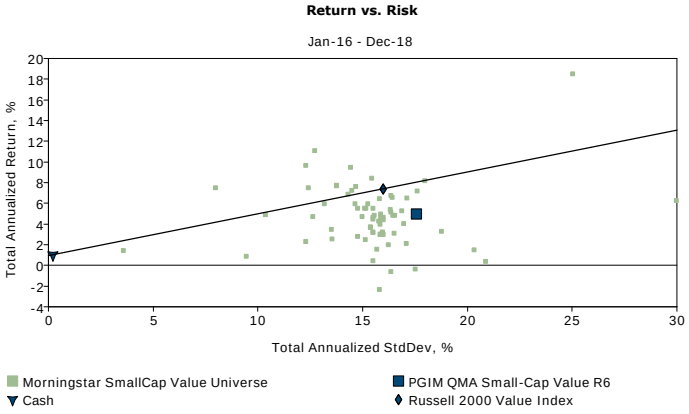
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
PGIM QMA Small-Cap Value R6	26.69	23.63	-0.48	14.14	35.87	5.95	-6.96	33.99	6.43	-18.82
Russell 2000 Value Index	20.58	24.50	-5.50	18.05	34.52	4.22	-7.47	31.74	7.84	-12.86



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
PGIM QMA Small-Cap Value R6	-2.60	1.08	97.20	0.31	17.57	3.24	0.58
Russell 2000 Value Index	0.00	1.00	100.00	0.46	15.98	0.00	1.08
Universe(5%)	3.14	1.11	98.38	0.68	19.53	10.58	2.14
Universe(25%)	-0.57	1.00	97.01	0.41	16.35	5.55	0.90
Universe(Median)	-2.27	0.95	93.68	0.31	15.54	4.27	0.61
Universe(75%)	-3.60	0.88	88.79	0.20	14.65	2.93	0.36
Universe(95%)	-6.80	0.65	67.89	0.04	11.31	2.13	0.04



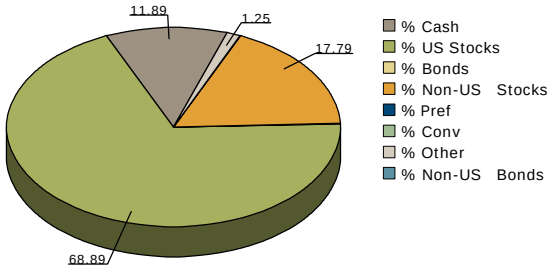




Milliman | Quarterly Investment Monitor

Data as of 12/31/2018

Federated Kaufmann Small Cap Instl



Portfolio Region	
% United States	79.48
% Canada	1.93
% Latin America	0.75
% United Kingdom	3.11
% Eurozone	10.42
% Europe - ex Euro	0.42
% Europe - Emerging	0.00
% Africa	0.00
% Middle East	0.94
% Japan	0.00
% Australasia	0.24
% Asia - Developed	0.50
% Asia - Emerging	2.20

Portfolio Structure	
% Cash	11.89
% US Stocks	68.89
% Bonds	0.15
% Non-US Stocks	17.79
% Pref	0.00
% Conv	0.03
% Other	1.25
% Non-US Bonds	0.00

Sector Allocation	
% Basic Materials	2.10
% Communication Services	0.97
% Consumer Cyclical	12.55
% Consumer Defensive	0.00
% Healthcare	31.32
% Industrials	8.51
% Real Estate	5.94
% Technology	33.96
% Energy	0.65
% Financial Services	4.00
% Utilities	0.00

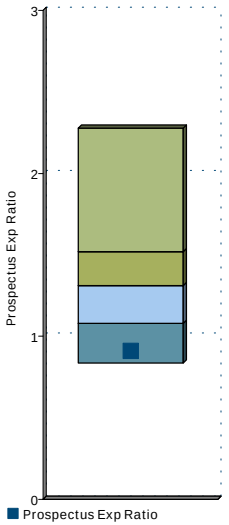
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
Veeva Systems Inc Class A	1.52%
argenx SE ADR	1.48%
Galapagos NV ADR	1.47%
AnaptysBio Inc	1.31%
Rapid7 Inc	1.12%
argenx SE	1.11%
GoDaddy Inc A	1.09%
XPO Logistics Inc	1.05%
ShotSpotter Inc	1.03%
CoStar Group Inc	1.01%

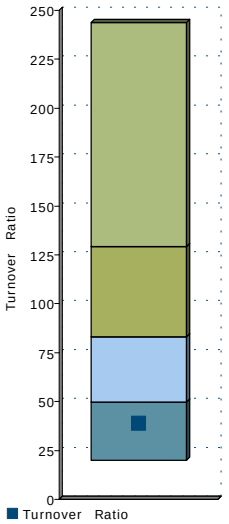
Portfolio Information	
Ticker	FKAIX
Morningstar Category	Small Growth
Avg Mkt Cap $MM	2705.76
Cat Med Mkt Cap $MM	3221.89
Net Assets $MM	1532.00
Turnover Ratio	39.00
% Assets in Top 10 Holdings	12.19
Total Number of Holdings	181.00
Manager Name	Hans P. Utsch
Manager Tenure	16.05
Fund Incept Date	12/18/2002
Prospectus Exp Ratio	0.91
Phone Number	800-341-7400

Portfolio Ratings	
Mstar Rating	★★★★★
3 Year Mstar Rating	★★★★★
% Rank Cat 3 Yr	2
5 Year Mstar Rating	★★★★★
% Rank Cat 5 Yr	1
10 Year Mstar Rating	★★★★
% Rank Cat 10 Yr	6

Expense Ratio vs. Peer Group



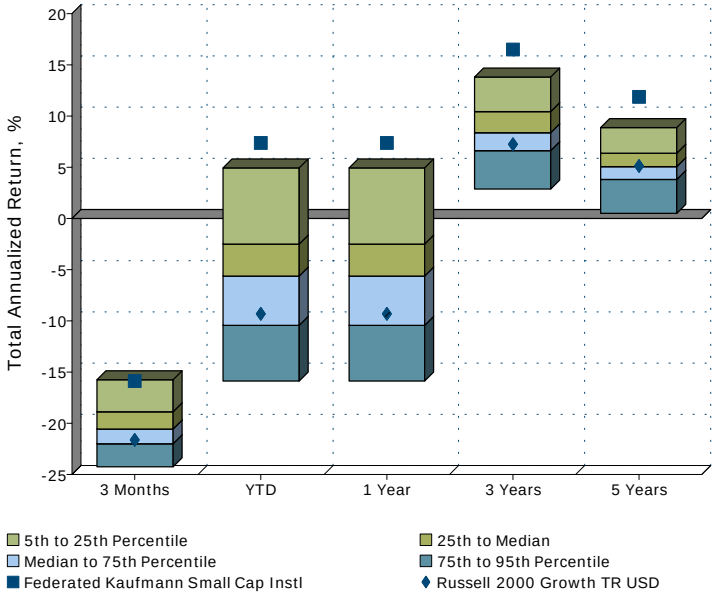
Turnover Ratio vs. Peer Group



Investment Strategy Summary

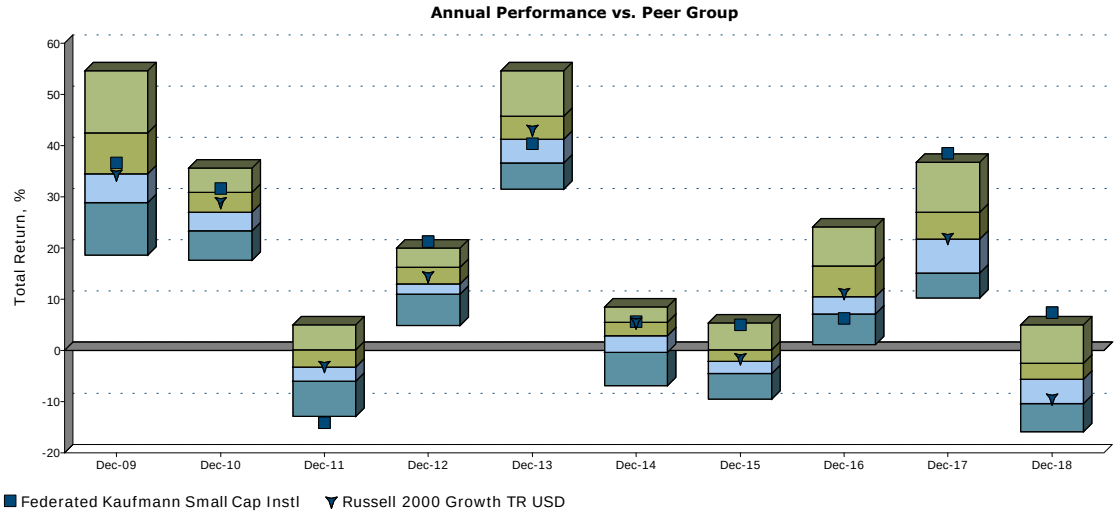
The investment seeks to provide capital appreciation. The fund invests primarily in the common stocks of small companies that are traded on national security exchanges, the NASDAQ stock market and on the over-the-counter market. It will normally invest at least 80% of its net assets (which include the 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 vs. Peer Group

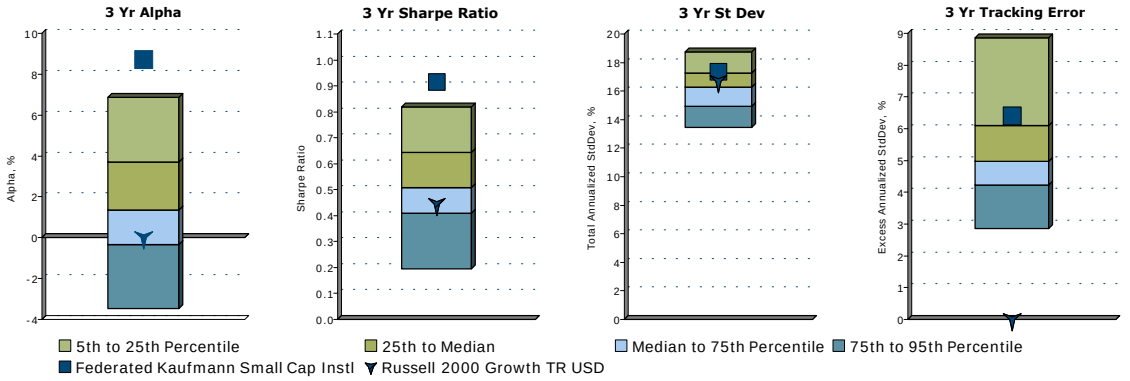


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Federated Kaufmann Small Cap Instl	-15.90	7.40	7.40	16.48	11.88
Russell 2000 Growth TR USD	-21.65	-9.31	-9.31	7.24	5.13
Universe(5%)	-15.74	4.95	4.95	13.82	8.85
Universe(25%)	-18.89	-2.50	-2.50	10.44	6.40
Universe(Median)	-20.59	-5.65	-5.65	8.35	5.04
Universe(75%)	-21.99	-10.43	-10.43	6.62	3.82
Universe(95%)	-24.28	-15.86	-15.86	2.86	0.48

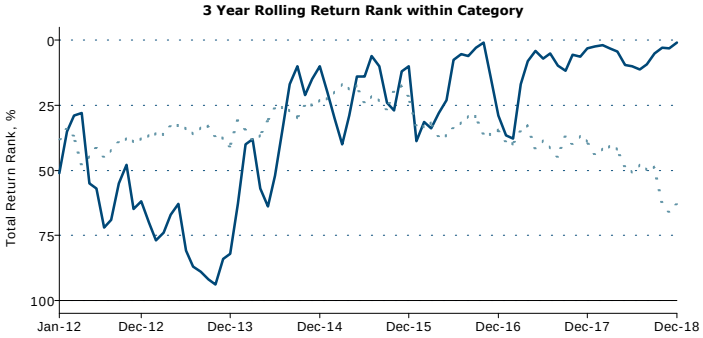
Federated Kaufmann Small Cap Instl

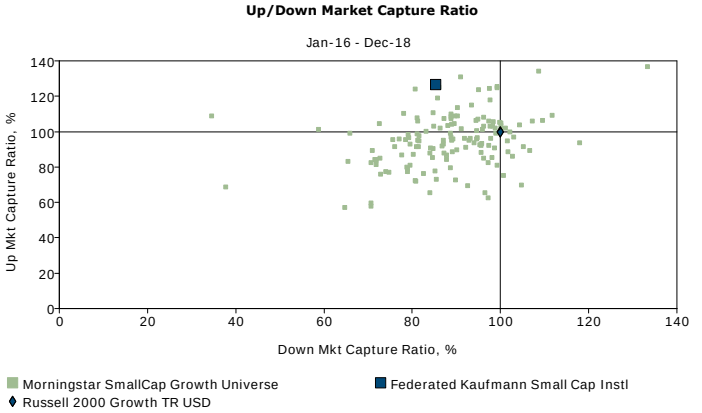


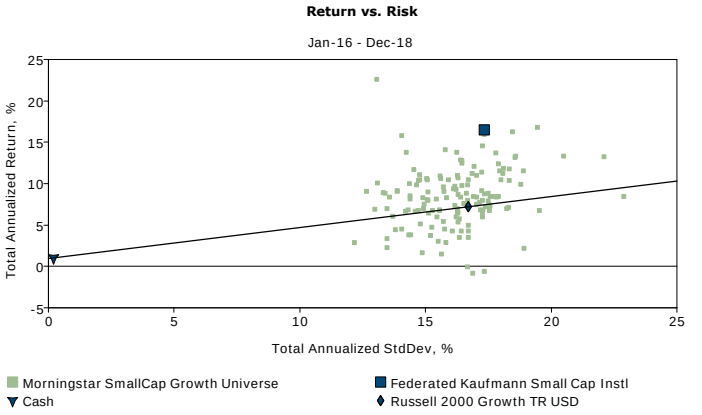
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Federated Kaufmann Small Cap Instl	36.58	31.61	-14.18	21.27	40.35	5.66	4.98	6.27	38.46	7.40
Russell 2000 Growth TR USD	34.47	29.09	-2.91	14.59	43.30	5.60	-1.38	11.32	22.17	-9.31



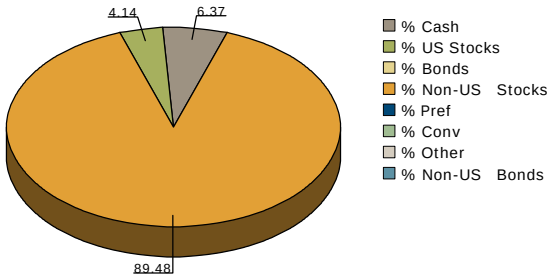
MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Federated Kaufmann Small Cap Instl	8.73	0.96	86.48	0.92	17.34	6.40	3.27
Russell 2000 Growth TR USD	0.00	1.00	100.00	0.44	16.69	0.00	0.97
Universe(5%)	6.87	1.05	97.34	0.82	18.75	8.86	2.76
Universe(25%)	3.69	0.99	93.93	0.64	17.26	6.09	1.79
Universe(Median)	1.35	0.93	91.93	0.51	16.28	4.97	1.22
Universe(75%)	-0.34	0.86	88.01	0.41	14.94	4.22	0.85
Universe(95%)	-3.47	0.75	74.14	0.20	13.46	2.86	0.33







Oppenheimer International Growth I



Portfolio Region	
% United States	4.42
% Canada	4.73
% Latin America	0.00
% United Kingdom	10.96
% Eurozone	36.09
% Europe - ex Euro	16.65
% Europe - Emerging	1.07
% Africa	0.00
% Middle East	0.00
% Japan	12.78
% Australasia	2.37
% Asia - Developed	3.32
% Asia - Emerging	7.59

Portfolio Structure	
% Cash	6.37
% US Stocks	4.14
% Bonds	0.00
% Non-US Stocks	89.48
% Pref	0.01
% Conv	0.00
% Other	0.00
% Non-US Bonds	0.00

Sector Allocation	
% Basic Materials	1.79
% Communication Services	2.64
% Consumer Cyclical	20.81
% Consumer Defensive	13.48
% Healthcare	14.53
% Industrials	14.45
% Real Estate	0.00
% Technology	25.00
% Energy	1.08
% Financial Services	6.24
% Utilities	0.00

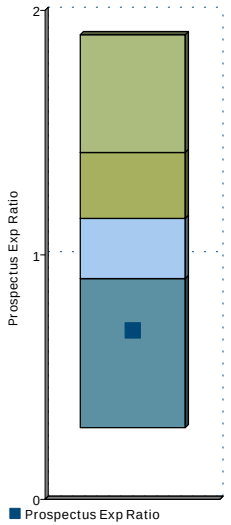
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
Infineon Technologies AG	2.29%
SAP SE	2.25%
ICICI Bank Ltd ADR	2.13%
Bunzl PLC	1.84%
Lonza Group Ltd	1.80%
Temenos AG	1.78%
SES SA DR	1.77%
Novo Nordisk A/S B	1.77%
Nokia Oyj	1.72%
ASML Holding NV	1.70%

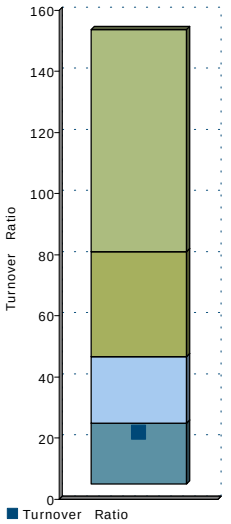
Portfolio Information	
Ticker	OIGIX
Morningstar Category	Foreign Large Growth
Avg Mkt Cap $MM	21598.65
Cat Med Mkt Cap $MM	33139.97
Net Assets $MM	18750.00
Turnover Ratio	22.00
% Assets in Top 10 Holdings	19.04
Total Number of Holdings	84.00
Manager Name	George R. Evans
Manager Tenure	22.78
Fund Incept Date	03/25/1996
Prospectus Exp Ratio	0.69
Phone Number	800-225-5677

Portfolio Ratings	
Mstar Rating	★★
3 Year Mstar Rating	★
% Rank Cat 3 Yr	92
5 Year Mstar Rating	★★
% Rank Cat 5 Yr	87
10 Year Mstar Rating	★★★★
% Rank Cat 10 Yr	33

Expense Ratio vs. Peer Group



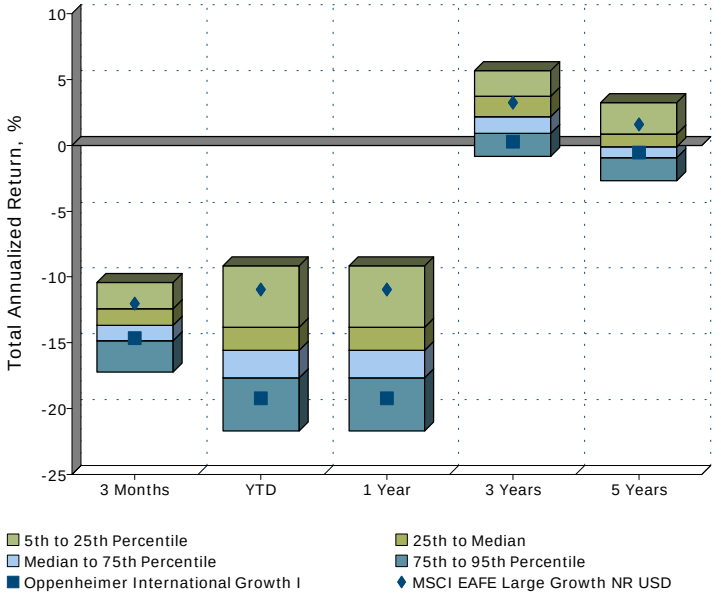
Turnover Ratio vs. Peer Group



Investment Strategy Summary

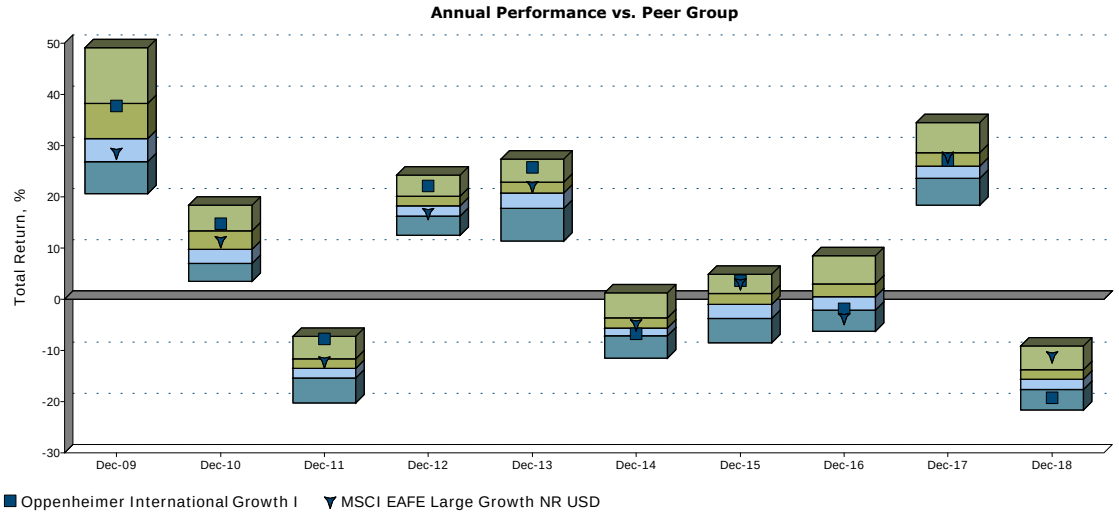
The investment seeks capital appreciation. The fund mainly invests in the common stock of growth companies that are domiciled or have their primary operations outside of the United States. It may invest 100% of its assets in securities of foreign companies. The fund may invest in emerging markets as well as in developed markets throughout the world. It normally will invest at least 65% of its total assets in common and preferred stocks of issuers in at least three different countries outside of the United States, and emphasize investments in common stocks of issuers that the portfolio managers consider to be "growth" companies.

Performance vs. Peer Group

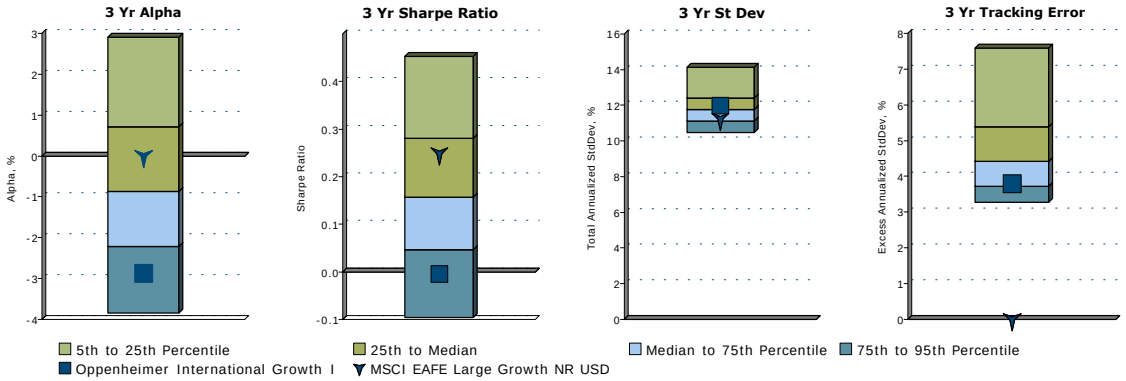


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Oppenheimer International Growth I	-14.63	-19.22	-19.22	0.26	-0.54
MSCI EAFE Large Growth NR USD	-12.00	-10.98	-10.98	3.22	1.60
Universe(5%)	-10.40	-9.14	-9.14	5.68	3.22
Universe(25%)	-12.41	-13.80	-13.80	3.73	0.85
Universe(Median)	-13.68	-15.57	-15.57	2.18	-0.12
Universe(75%)	-14.83	-17.66	-17.66	0.89	-0.91
Universe(95%)	-17.20	-21.68	-21.68	-0.84	-2.71

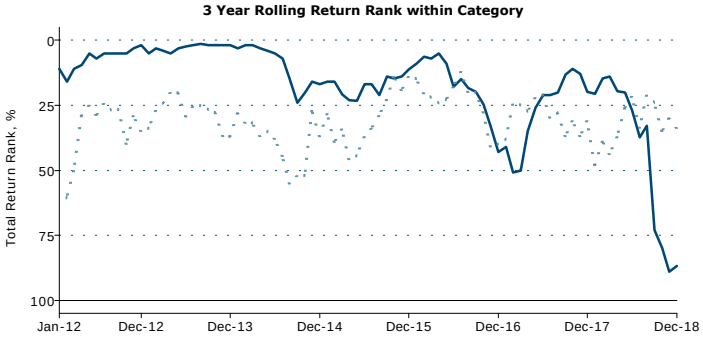
Oppenheimer International Growth I

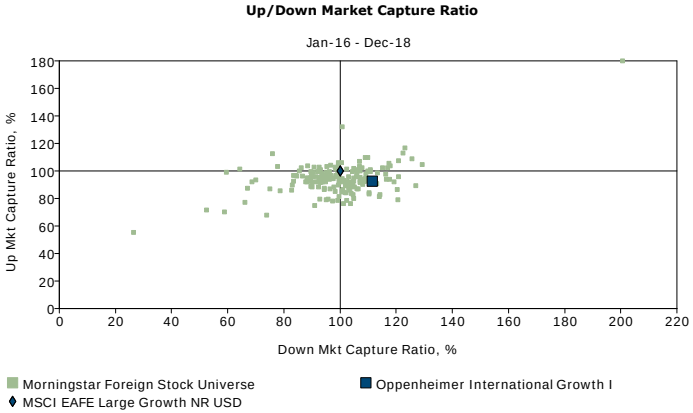


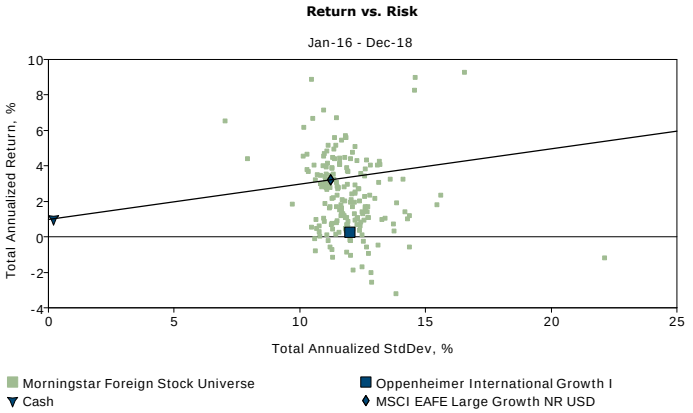
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Oppenheimer International Growth I	37.78	14.69	-7.71	22.12	25.71	-6.80	3.63	-1.88	27.15	-19.22
MSCI EAFE Large Growth NR USD	28.81	11.48	-12.04	17.06	22.28	-4.70	3.28	-3.47	27.97	-10.98



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Oppenheimer International Growth I	-2.87	1.01	90.05	0.00	11.98	3.80	0.03
MSCI EAFE Large Growth NR USD	0.00	1.00	100.00	0.25	11.23	0.00	0.56
Universe(5%)	2.91	1.10	92.13	0.45	14.15	7.59	1.28
Universe(25%)	0.72	1.02	90.10	0.28	12.43	5.39	0.64
Universe(Median)	-0.87	0.96	86.81	0.16	11.76	4.42	0.33
Universe(75%)	-2.21	0.93	81.24	0.05	11.13	3.72	0.12
Universe(95%)	-3.84	0.84	66.77	-0.10	10.49	3.27	-0.10



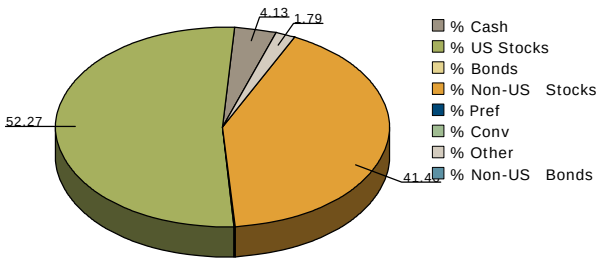




Milliman | Quarterly Investment Monitor

Data as of 12/31/2018

American Funds New Perspective R6



Portfolio Region	
% United States	55.77
% Canada	1.64
% Latin America	1.98
% United Kingdom	6.48
% Eurozone	9.75
% Europe - ex Euro	6.07
% Europe - Emerging	0.00
% Africa	1.79
% Middle East	0.15
% Japan	5.86
% Australasia	0.31
% Asia - Developed	8.17
% Asia - Emerging	2.04

Portfolio Structure	
% Cash	4.13
% US Stocks	52.27
% Bonds	0.20
% Non-US Stocks	41.46
% Pref	0.10
% Conv	0.05
% Other	1.79
% Non-US Bonds	0.00

Sector Allocation	
% Basic Materials	6.47
% Communication Services	1.95
% Consumer Cyclical	18.29
% Consumer Defensive	8.58
% Healthcare	10.02
% Industrials	7.97
% Real Estate	0.23
% Technology	26.26
% Energy	4.46
% Financial Services	14.56
% Utilities	1.20

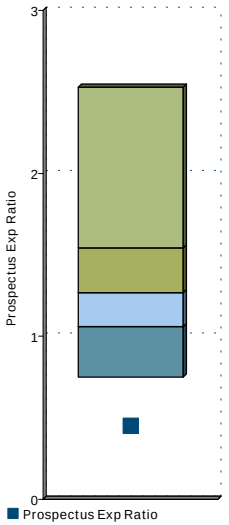
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
Amazon.com Inc	5.22%
Taiwan Semiconductor Manufacturing Co Ltd	2.24%
Facebook Inc A	2.14%
Microsoft Corp	2.12%
Broadcom Inc	1.64%
Mastercard Inc A	1.58%
JPMorgan Chase & Co	1.56%
Netflix Inc	1.49%
Naspers Ltd Class N	1.48%
Visa Inc Class A	1.42%

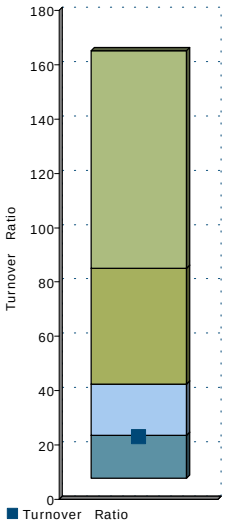
Portfolio Information	
Ticker	RNPGX
Morningstar Category	World Large Stock
Avg Mkt Cap $MM	75483.54
Cat Med Mkt Cap $MM	68988.37
Net Assets $MM	74415.00
Turnover Ratio	23.00
% Assets in Top 10 Holdings	20.91
Total Number of Holdings	340.00
Manager Name	Robert W. Lovelace
Manager Tenure	18.09
Fund Incept Date	03/13/1973
Prospectus Exp Ratio	0.45
Phone Number	800-421-4225

Portfolio Ratings	
Mstar Rating	★★★★
3 Year Mstar Rating	★★★★
% Rank Cat 3 Yr	19
5 Year Mstar Rating	★★★★
% Rank Cat 5 Yr	11
10 Year Mstar Rating	★★★★★
% Rank Cat 10 Yr	11

Expense Ratio vs. Peer Group



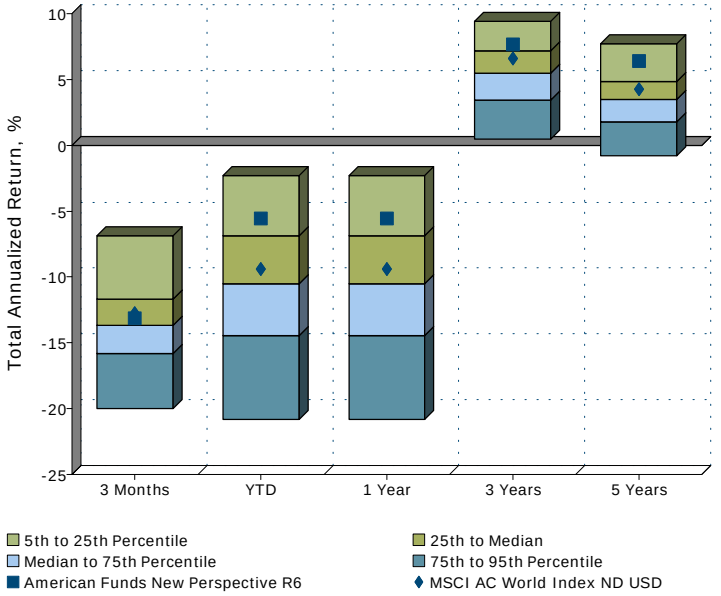
Turnover Ratio vs. Peer Group



Investment Strategy Summary

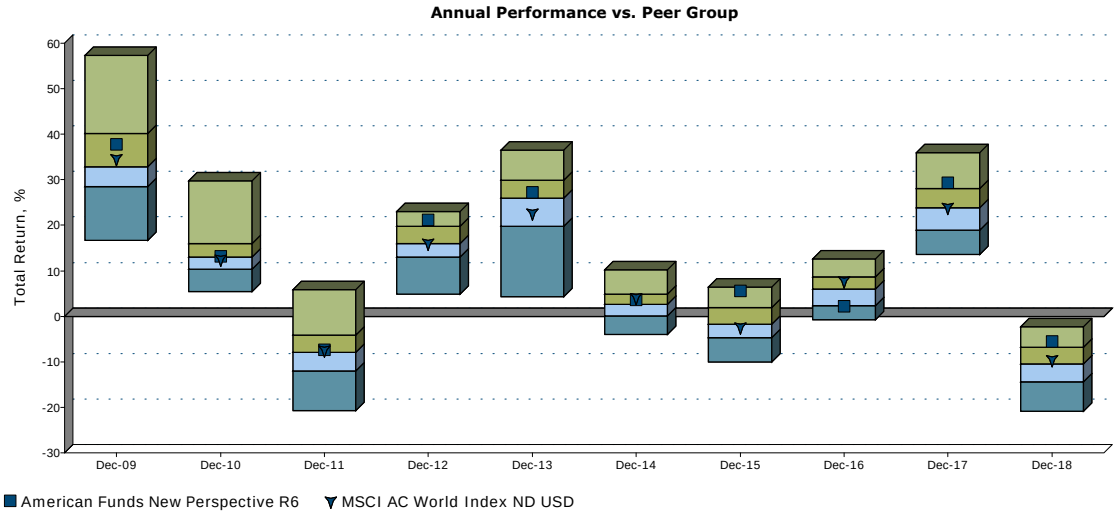
The investment seeks long-term growth of capital; future income is a secondary objective. The fund seeks to take advantage of investment opportunities generated by changes in international trade patterns and economic and political relationships by investing in common stocks of companies located around 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 vs. Peer Group

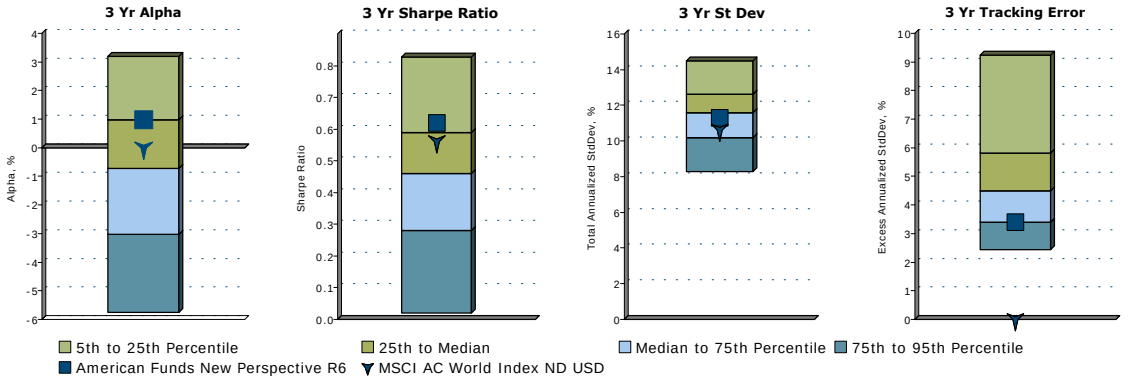


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
American Funds New Perspective R6	-13.15	-5.56	-5.56	7.66	6.42
MSCI AC World Index ND USD	-12.75	-9.42	-9.42	6.60	4.26
Universe(5%)	-6.85	-2.30	-2.30	9.44	7.73
Universe(25%)	-11.68	-6.87	-6.87	7.18	4.86
Universe(Median)	-13.65	-10.49	-10.49	5.47	3.51
Universe(75%)	-15.80	-14.46	-14.46	3.46	1.79
Universe(95%)	-20.00	-20.82	-20.82	0.45	-0.78

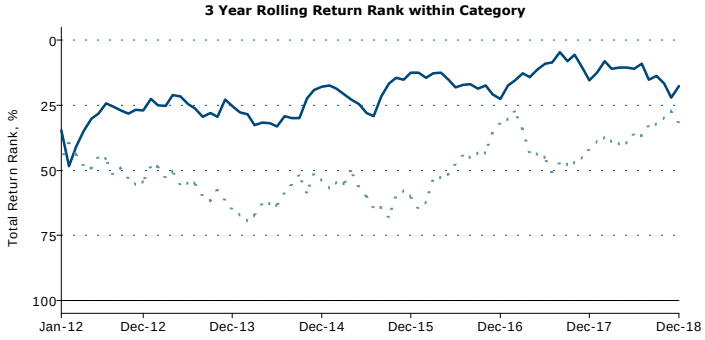
American Funds New Perspective R6

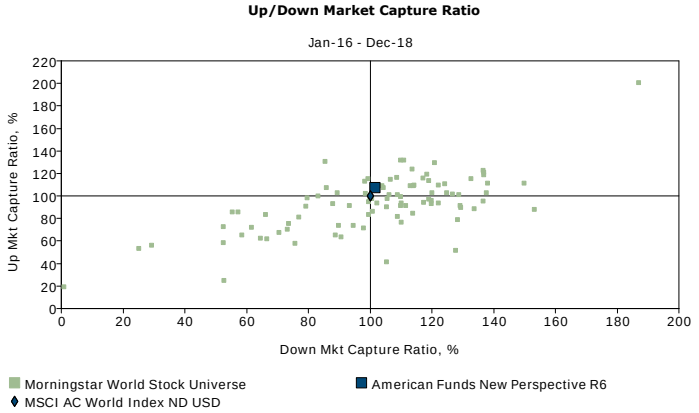


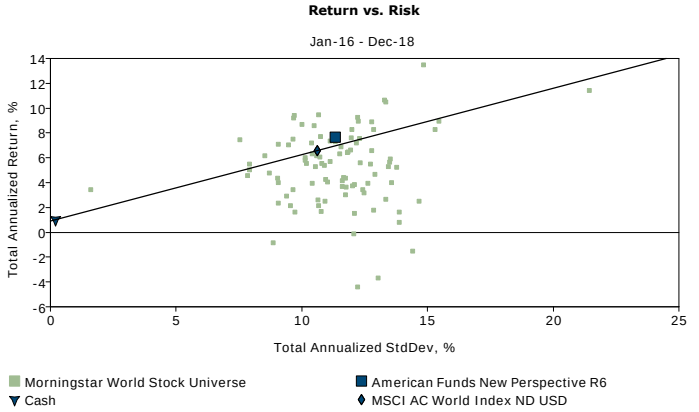
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
American Funds New Perspective R6	37.73	13.11	-7.33	21.19	27.23	3.56	5.63	2.19	29.30	-5.56
MSCI AC World Index ND USD	34.63	12.67	-7.35	16.13	22.80	4.16	-2.36	7.86	23.97	-9.42



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
American Funds New Perspective R6	0.98	1.02	91.04	0.62	11.32	3.40	1.86
MSCI AC World Index ND USD	0.00	1.00	100.00	0.56	10.62	0.00	1.62
Universe(5%)	3.20	1.20	94.88	0.83	14.51	9.24	3.04
Universe(25%)	0.99	1.10	90.64	0.59	12.62	5.82	1.72
Universe(Median)	-0.72	1.00	86.09	0.46	11.60	4.49	1.21
Universe(75%)	-3.02	0.89	78.13	0.28	10.19	3.40	0.62
Universe(95%)	-5.74	0.61	46.39	0.02	8.29	2.43	0.05



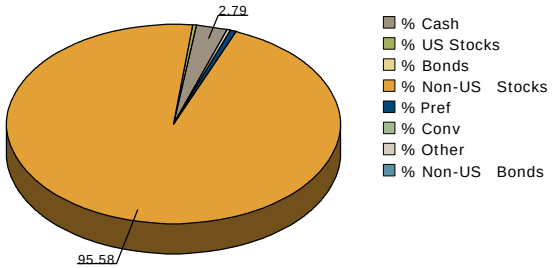




Milliman | Quarterly Investment Monitor

Data as of 12/31/2018

Vanguard Emerging Mkts Stock Idx Instl



Portfolio Region	
% United States	0.72
% Canada	0.01
% Latin America	12.94
% United Kingdom	0.16
% Eurozone	0.44
% Europe - ex Euro	0.01
% Europe - Emerging	4.80
% Africa	6.82
% Middle East	2.27
% Japan	0.00
% Australasia	0.02
% Asia - Developed	15.34
% Asia - Emerging	56.46

Portfolio Structure	
% Cash	2.79
% US Stocks	0.70
% Bonds	0.00
% Non-US Stocks	95.58
% Pref	0.63
% Conv	0.01
% Other	0.29
% Non-US Bonds	0.00

Sector Allocation	
% Basic Materials	8.16
% Communication Services	4.81
% Consumer Cyclical	11.55
% Consumer Defensive	6.66
% Healthcare	3.15
% Industrials	6.06
% Real Estate	4.44
% Technology	20.30
% Energy	7.56
% Financial Services	24.16
% Utilities	3.16

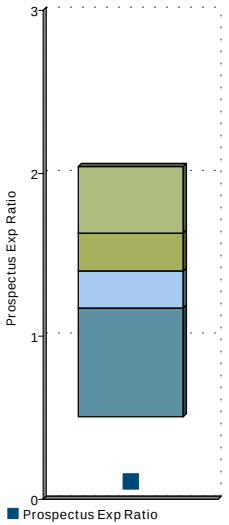
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
Tencent Holdings Ltd	4.49%
Alibaba Group Holding Ltd ADR	3.34%
Taiwan Semiconductor Manufacturing Co Ltd	2.15%
Naspers Ltd Class N	1.68%
China Construction Bank Corp H	1.50%
Taiwan Semiconductor Manufacturing Co Ltd ADR	1.40%
Industrial And Commercial Bank Of China Ltd H	1.10%
China Mobile Ltd	1.04%
Baidu Inc ADR	1.02%
Reliance Industries Ltd	1.02%

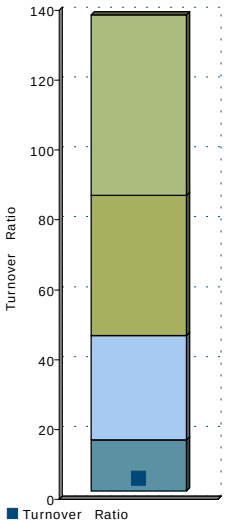
Portfolio Information	
Ticker	VEMIX
Morningstar Category	Diversified Emerging Mkts
Avg Mkt Cap $MM	18685.94
Cat Med Mkt Cap $MM	28791.48
Net Assets $MM	75602.00
Turnover Ratio	6.00
% Assets in Top 10 Holdings	18.74
Total Number of Holdings	4073.00
Manager Name	Michael Perre
Manager Tenure	10.35
Fund Incept Date	05/04/1994
Prospectus Exp Ratio	0.11
Phone Number	888-809-8102

Portfolio Ratings	
Mstar Rating	★★★
3 Year Mstar Rating	★★★
% Rank Cat 3 Yr	39
5 Year Mstar Rating	★★★
% Rank Cat 5 Yr	34
10 Year Mstar Rating	★★★
% Rank Cat 10 Yr	50

Expense Ratio vs. Peer Group



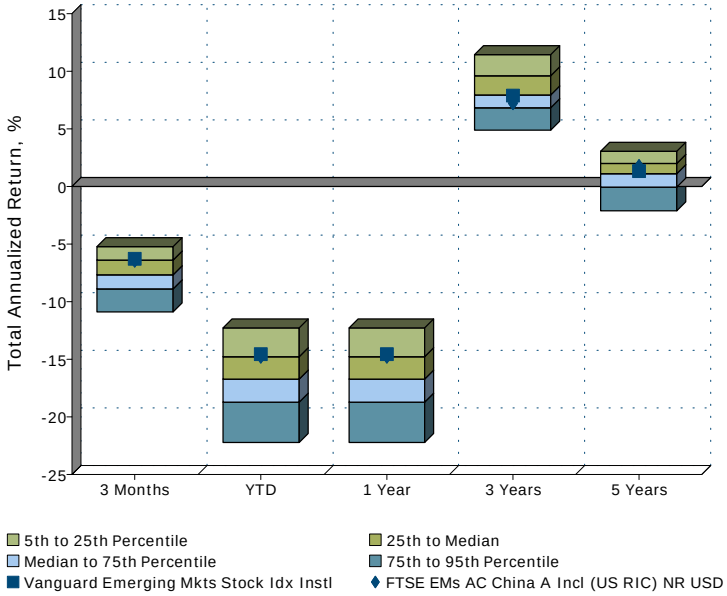
Turnover Ratio vs. Peer Group



Investment Strategy Summary

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, a market-capitalization-weighted index that is made up of approximately 4,032 common stocks of large-, mid-, and small-cap companies located in emerging markets around the world.

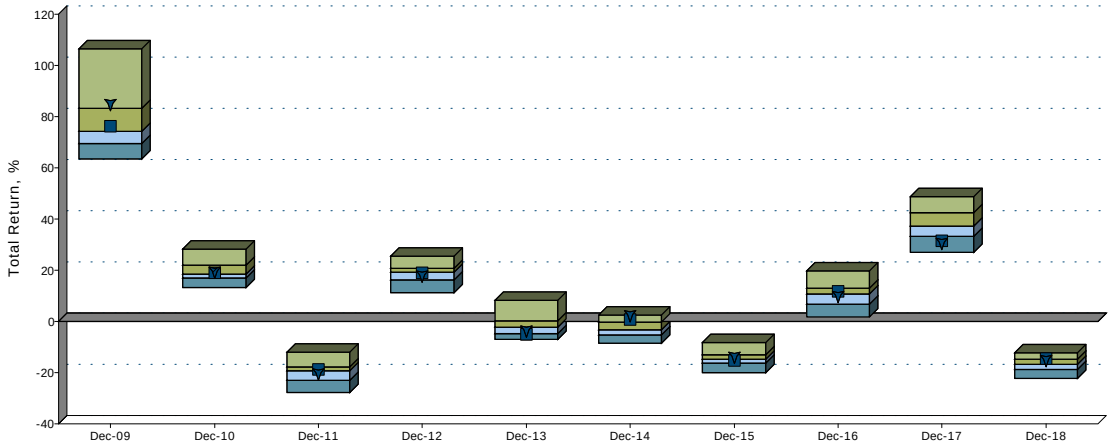
Performance vs. Peer Group



Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Vanguard Emerging Mkts Stock Idx Instl	-6.30	-14.54	-14.54	7.88	1.36
FTSE EMs AC China A Incl (US RIC) NR USD	-6.43	-14.77	-14.77	7.21	1.80
Universe(5%)	-5.23	-12.25	-12.25	11.45	3.07
Universe(25%)	-6.41	-14.78	-14.78	9.64	1.98
Universe(Median)	-7.65	-16.71	-16.71	7.96	1.14
Universe(75%)	-8.90	-18.72	-18.72	6.82	-0.03
Universe(95%)	-10.87	-22.21	-22.21	4.88	-2.14

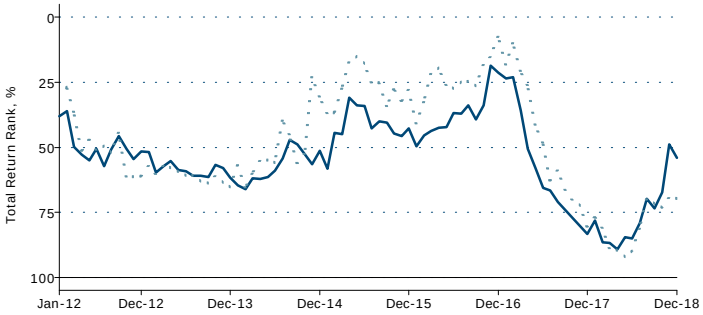
Vanguard Emerging Mkts Stock Idx Instl

Annual Performance vs. Peer Group



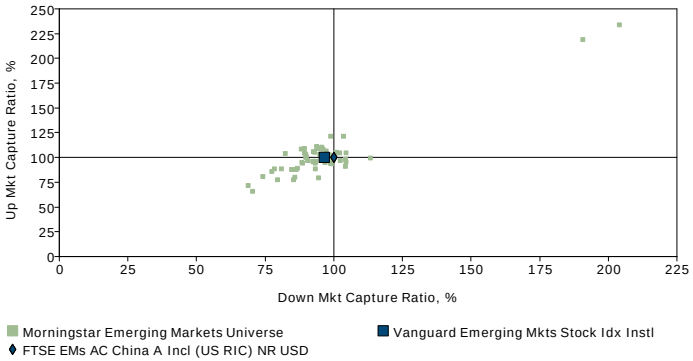
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vanguard Emerging Mkts Stock Idx Instl	76.35	19.06	-18.63	18.91	-4.99	0.67	-15.34	11.76	31.43	-14.54
FTSE EMs AC China A Incl (US RIC) NR USD	85.17	19.81	-19.99	18.14	-3.17	2.64	-13.55	10.30	31.06	-14.77

3 Year Rolling Return Rank within Category

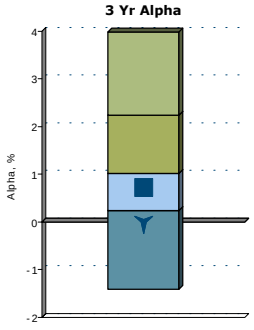


Up/Down Market Capture Ratio

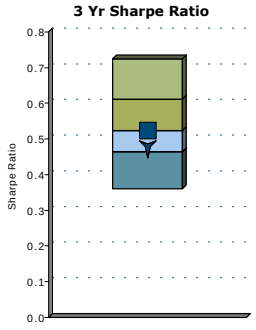
Jan-16 - Dec-18



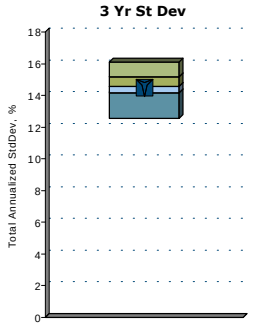
3 Yr Alpha



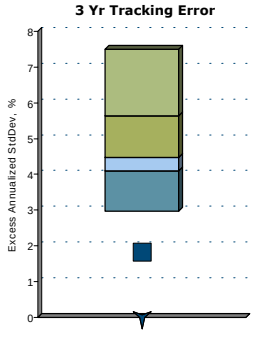
3 Yr Sharpe Ratio



3 Yr St Dev



3 Yr Tracking Error



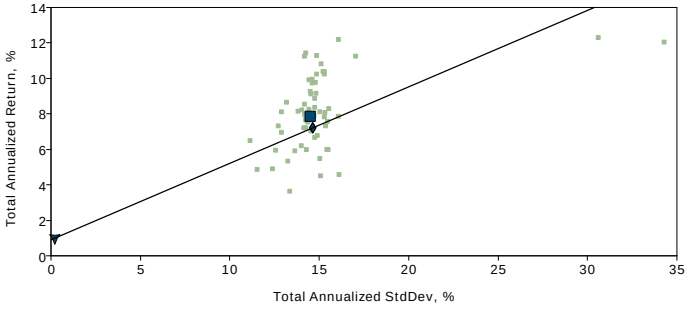
5th to 25th Percentile | 25th to Median | Median to 75th Percentile | 75th to 95th Percentile

Vanguard Emerging Mkts Stock Idx Instl | FTSE EMs AC China A Incl (US RIC) NR USD

MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Vanguard Emerging Mkts Stock Idx Instl	0.72	0.98	98.45	0.52	14.49	1.83	1.39
FTSE EMs AC China A Incl (US RIC) NR USD	0.00	1.00	100.00	0.48	14.63	0.00	1.20
Universe(5%)	3.98	1.07	95.92	0.72	16.10	7.51	2.34
Universe(25%)	2.23	0.99	92.88	0.61	15.19	5.63	1.76
Universe(Median)	1.02	0.96	91.29	0.52	14.57	4.47	1.36
Universe(75%)	0.25	0.91	86.59	0.46	14.16	4.10	1.08
Universe(95%)	-1.42	0.77	81.10	0.36	12.57	2.97	0.80

Return vs. Risk

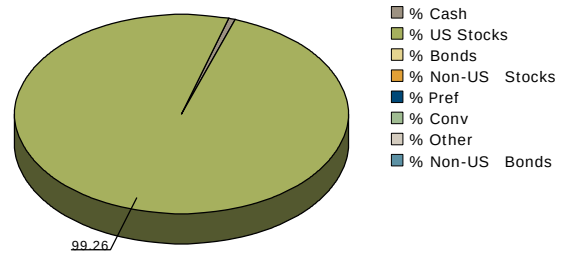
Jan-16 - Dec-18



Milliman | Quarterly Investment Monitor

Data as of 12/31/2018

Vanguard Real Estate Index Institutional



Portfolio Region	
% United States	99.96
% Canada	0.04
% Latin America	0.00
% United Kingdom	0.00
% Eurozone	0.00
% Europe - ex Euro	0.00
% Europe - Emerging	0.00
% Africa	0.00
% Middle East	0.00
% Japan	0.00
% Australasia	0.00
% Asia - Developed	0.00
% Asia - Emerging	0.00

Portfolio Structure	
% Cash	0.71
% US Stocks	99.26
% Bonds	0.00
% Non-US Stocks	0.03
% Pref	0.00
% Conv	0.00
% Other	0.00
% Non-US Bonds	0.00

Sector Allocation	
% Basic Materials	2.25
% Communication Services	8.56
% Consumer Cyclical	0.00
% Consumer Defensive	0.00
% Healthcare	0.00
% Industrials	0.88
% Real Estate	88.30
% Technology	0.00
% Energy	0.00
% Financial Services	0.00
% Utilities	0.00

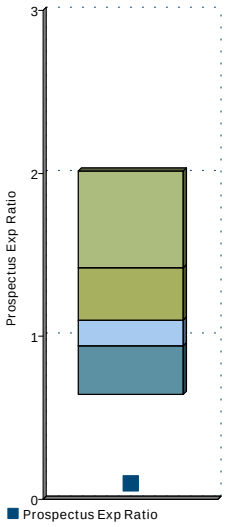
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
Vanguard Real Estate II Index	11.02%
American Tower Corp	5.94%
Simon Property Group Inc	4.70%
Crown Castle International Corp	3.90%
Prologis Inc	3.47%
Public Storage	2.74%
Equinix Inc	2.51%
Welltower Inc	2.20%
AvalonBay Communities Inc	2.16%
Equity Residential	2.15%

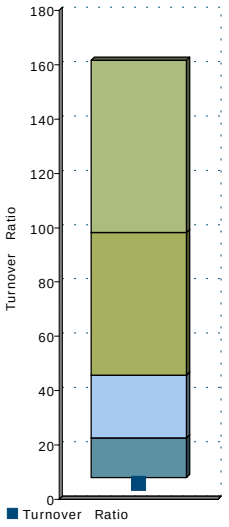
Portfolio Information	
Ticker	VGSNX
Morningstar Category	Real Estate
Avg Mkt Cap $MM	13091.92
Cat Med Mkt Cap $MM	15811.41
Net Assets $MM	53271.00
Turnover Ratio	6.00
% Assets in Top 10 Holdings	40.78
Total Number of Holdings	193.00
Manager Name	Gerard C. O'Reilly
Manager Tenure	22.65
Fund Incept Date	05/13/1996
Prospectus Exp Ratio	0.10
Phone Number	888-809-8102

Portfolio Ratings	
Mstar Rating	★★★
3 Year Mstar Rating	★★★
% Rank Cat 3 Yr	46
5 Year Mstar Rating	★★★
% Rank Cat 5 Yr	43
10 Year Mstar Rating	★★★
% Rank Cat 10 Yr	26

Expense Ratio vs. Peer Group



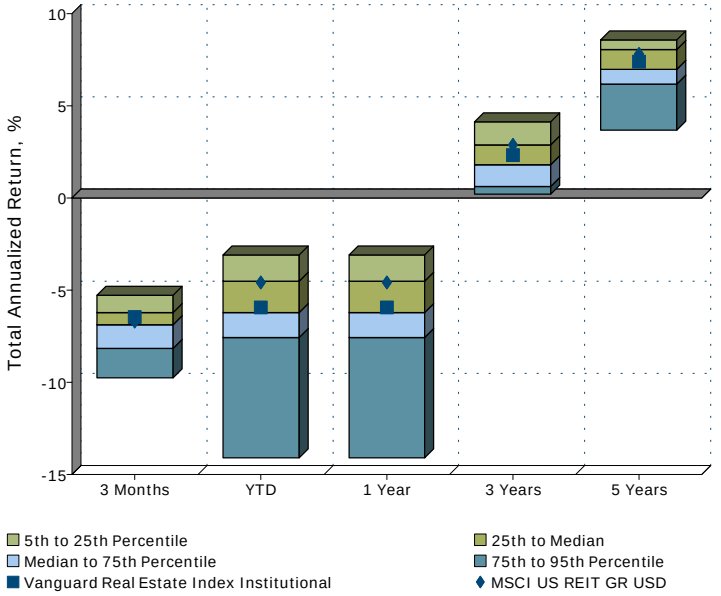
Turnover Ratio vs. Peer Group



Investment Strategy Summary

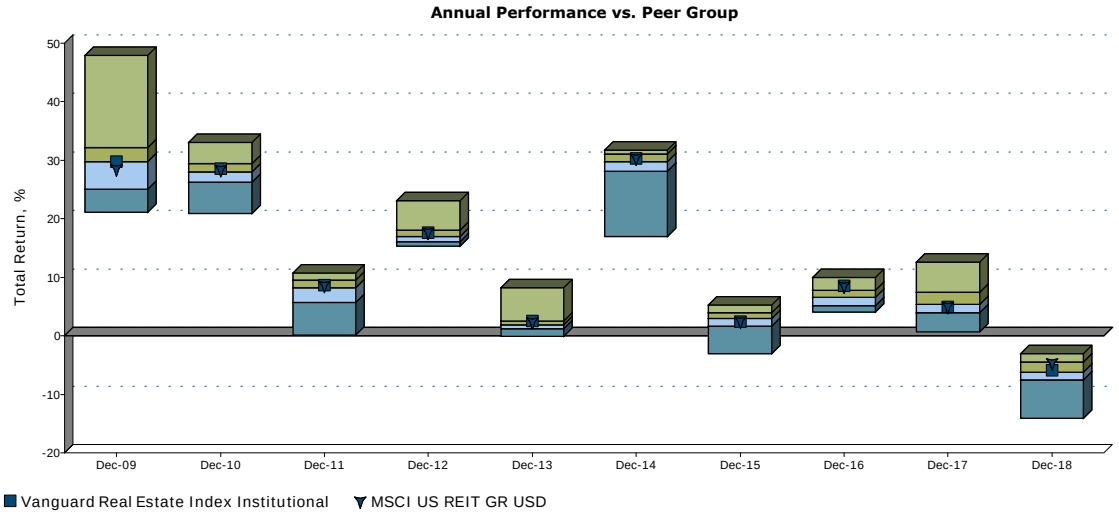
The investment seeks to provide a high level of income and moderate long-term capital appreciation by tracking the performance of the MSCI US Investable Market Real Estate 25/50 Index that measures the performance of publicly traded equity REITs and other real estate-related investments. The advisor 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 vs. Peer Group

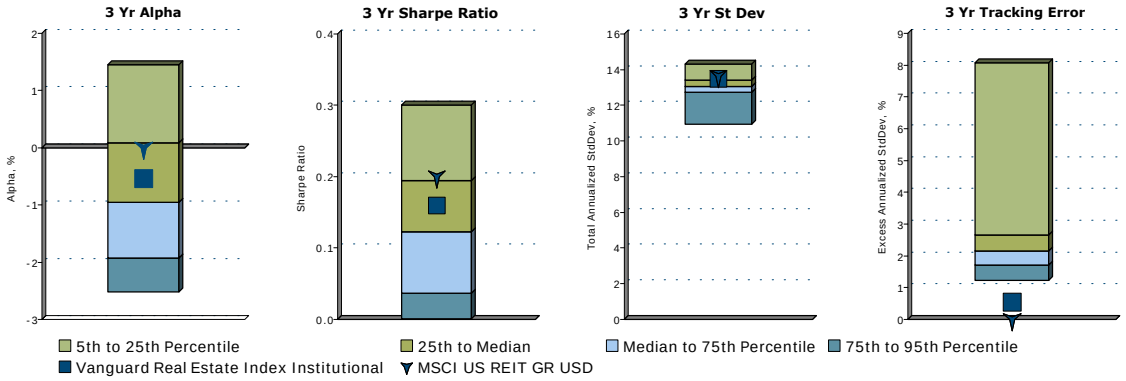


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Vanguard Real Estate Index Institutional	-6.46	-5.93	-5.93	2.31	7.41
MSCI US REIT GR USD	-6.72	-4.57	-4.57	2.88	7.80
Universe(5%)	-5.28	-3.10	-3.10	4.13	8.57
Universe(25%)	-6.22	-4.51	-4.51	2.88	8.05
Universe(Median)	-6.89	-6.23	-6.23	1.80	6.98
Universe(75%)	-8.17	-7.57	-7.57	0.63	6.19
Universe(95%)	-9.75	-14.11	-14.11	0.22	3.70

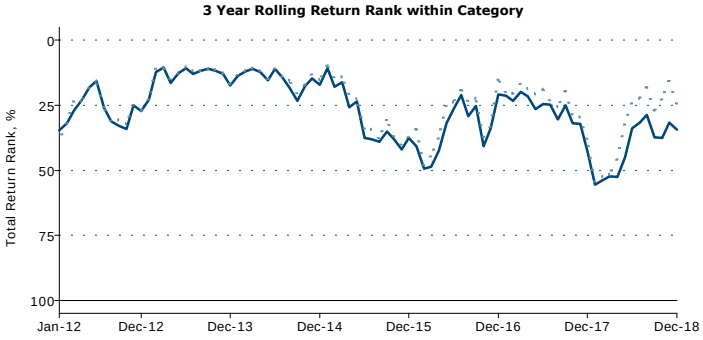
Vanguard Real Estate Index Institutional

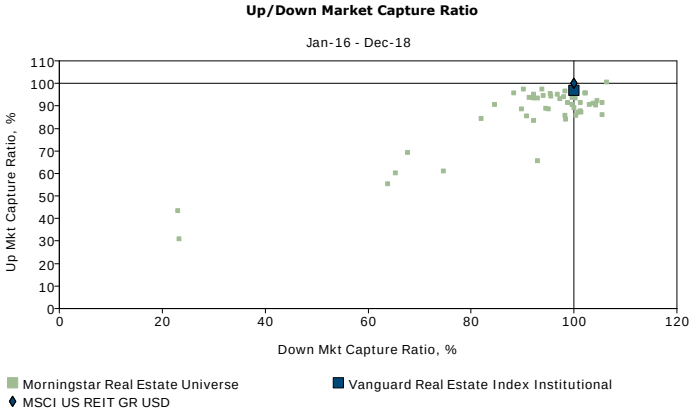


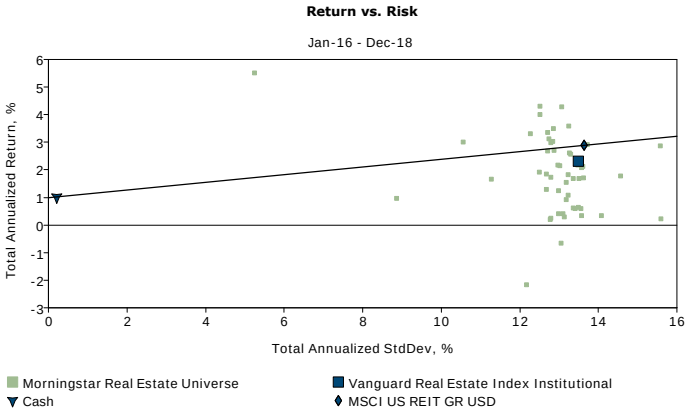
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vanguard Real Estate Index Institutional	29.76	28.56	8.70	17.65	2.48	30.28	2.45	8.51	4.93	-5.93
MSCI US REIT GR USD	28.61	28.48	8.69	17.77	2.47	30.38	2.52	8.60	5.07	-4.57



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Vanguard Real Estate Index Institutional	-0.54	0.99	99.85	0.16	13.49	0.54	0.31
MSCI US REIT GR USD	0.00	1.00	100.00	0.20	13.64	0.00	0.40
Universe(5%)	1.46	0.99	99.30	0.30	14.30	8.07	0.67
Universe(25%)	0.09	0.97	98.58	0.19	13.42	2.65	0.40
Universe(Median)	-0.95	0.94	97.74	0.12	13.06	2.16	0.25
Universe(75%)	-1.93	0.92	96.37	0.04	12.73	1.71	0.08
Universe(95%)	-2.52	0.65	72.79	0.00	10.96	1.23	0.02







Glossary

Alpha (3 Yr)

Alpha is a measure of the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by beta. A positive alpha figure indicates the portfolio has performed better than its beta would predict. In contrast, a negative alpha indicates the portfolio has underperformed, given the expectations established by beta.

Average Effective Duration

A measure of a fund's interest-rate sensitivity--the longer a fund's duration, the more sensitive the fund is to shifts in interest rates. Duration is determined by a formula that includes coupon rates and bond maturities. Small coupons tend to increase duration, while shorter maturities and higher coupons shorten duration. The relationship between funds with different durations is straightforward: A fund with a duration of 10 years is twice as volatile as a fund with a five-year duration. Morningstar prints an average effective duration statistic that incorporates call, put, and prepayment possibilities.

Average Effective Maturity

Average effective maturity is a weighted average of all the effective maturities of the bonds in a portfolio. Effective maturity takes into consideration mortgage prepayments, puts, calls, adjustable coupons, and other features of individual bonds and is thus a more accurate measure of interest-rate sensitivity. Longer-maturity funds are generally considered more interest-rate sensitive than their shorter counterparts.

Beta

A measure of a fund's sensitivity to market movements. The beta of the market is 1.00 by definition. Morningstar calculates beta by comparing a fund's excess return over Treasury bills to the market's excess return over Treasury bills, so a beta of 1.10 shows that the fund has performed 10% better than its benchmark index in up markets and 10% worse in down markets, assuming all other factors remain constant. Conversely, a beta of 0.85 indicates that the fund's excess return is expected to perform 15% worse than the market's excess return during up markets and 15% better during down markets.

The Morningstar Rating

Commonly called the Star Rating, is a measure of a fund's risk-adjusted return, relative to funds in its category. Funds are rated from one to five stars, with the best performers receiving five stars and the worst performers receiving a single star.

Risk-adjusted return is calculated by subtracting a risk penalty from each fund total return, after accounting for all loads, sales charges, and redemption fees. The risk penalty is determined by the amount of variation in the fund's monthly return, with emphasis on downward variation. The greater the variation, the larger the penalty. Funds are ranked within their categories and stars are assigned as follows: Top 10% five stars; Next 22.5% four stars; Middle 35% three stars; Next 22.5% two stars; Bottom 10% one star.

Audited Expense Ratio

The percentage of fund assets paid for operating expenses and management fees, including 12b-1 fees, administrative fees, and all other asset-based costs incurred by the fund, except brokerage costs. Fund expenses are reflected in the fund's NAV . Sales charges are not included in the expense ratio.

Geometric Average Market Capitalization

Morningstar defines the overall "size" of a stock fund's portfolio as the geometric mean of the market capitalization for all of the stocks it owns. It's calculated by raising the market capitalization of each stock to a power equal to that stock's stake in the portfolio. The resulting numbers are multiplied together to produce the geometric mean of the market caps of the stocks in the portfolio, which is reported as average market capitalization.
This number is different from the fund's median market cap--the capitalization of the median stock in its portfolio. The geometric mean better identifies the portfolio's "center of gravity." That is, it provides more accurate insight into how market trends (as defined by capitalization) might affect the portfolio.

Net Assets

The month-end net assets of the mutual fund, recorded in millions of dollars. Net-asset figures are useful in gauging a fund's size, agility, and popularity. They help determine whether a small company fund, for example, can remain in its investment-objective category if its asset base reaches an ungainly size.

% Assets in Top 10 Holdings

The aggregate assets, expressed as a percentage, of the fund's top 10 portfolio holdings. This figure is meant to be a measure of portfolio risk. Specifically, the higher the percentage, the more concentrated the fund is in a few companies or issues, and the more the fund is susceptible to the market fluctuations in these few holdings. The figure is calculated from the most recent available fund holdings.

Price/Book Ratio TTM

The weighted average of the price/book ratios of all the stocks in a fund's portfolio. The P/B ratio of a company is calculated by dividing the market price of its stock by the company's per-share book value. Stocks with negative book values are excluded from this calculation. In theory, a high P/B ratio indicates that the price of the stock exceeds the actual worth of the company's assets, while a low P/B ratio indicates that the stock is a bargain.

Price/Earnings Ratio TTM

The weighted average of the price/earnings ratios of the stocks in a fund's portfolio. The P/E ratio of a stock is calculated by dividing the current price of the stock by its trailing 12 months' earnings per share. In computing the average, Morningstar weights each portfolio holding by the percentage of equity assets it represents, so that larger positions have proportionately greater influence on the fund's final P/E.

R-Squared

Reflects the percentage of a fund's movements that can be explained by movements in its benchmark index. An R-squared of 100 indicates that all movements of a fund can be explained by movements in the index. Thus, index funds that invest only in S&P 500 stocks will have an R-squared very close to 100. Conversely, a low R-squared indicates that very few of the fund's movements can be explained by movements in its benchmark index. An R-squared measure of 35, for example, means that only 35% of the fund's movements can be explained by movements in the benchmark index.

Sharpe Ratio

The Sharpe Ratio is a risk-adjusted measure developed by Nobel Laureate William Sharpe. It is calculated by using standard deviation and excess return to determine reward per unit of risk. The higher the Sharpe Ratio, the better the portfolio's historical risk-adjusted performance. It can be used to compare two portfolios directly on how much excess return each portfolio achieved for a certain level of risk.

Standard Deviation

Standard deviation is the statistical measurement of dispersion about an average, which depicts how widely a stock or portfolio's returns varied over a certain period of time. Investors use the standard deviation of historical performance to try to predict the range of returns that is most likely for a given investment. When a stock or portfolio has a high standard deviation, the predicted range of performance is wide, implying greater volatility.

Total Number of Holdings

The total number of different holdings of a fund. This figure is meant to be a measure of portfolio risk. Specifically, the lower the figure, the more concentrated the fund is in a few companies or issues, and the more the fund is susceptible to the market fluctuations in these few holdings. This figure also provides a context for the importance of % assets in top 10 holdings. The figure is calculated from the most recent available fund holdings. It does not include a fund's short positions.

Total Return

Expressed in percentage terms, Morningstar's calculation of total return is determined each month by taking the change in monthly net asset value, reinvesting all income and capital-gains distributions during that month, and dividing by the starting NAV. Reinvestments are made using the actual reinvestment NAV, and daily payoffs are reinvested monthly.

Turnover Ratio

This is a measure of the fund's trading activity which is computed by taking the lesser of purchases or sales (excluding all securities with maturities of less than one year) and dividing by average monthly net assets. A turnover ratio of 100% or more does not necessarily suggest that all securities in the portfolio have been traded. In practical terms, the resulting percentage loosely represents the percentage of the portfolio's holdings that have changed over the past year.

12-Month Yield

Also known as a distribution yield, Morningstar computes this figure by summing the trailing 12-month's income distributions and dividing the sum by the last month's ending NAV, plus any capital gains distributed over the same period. Income refers only to interest payments from fixed-income securities and dividend payoffs from common stocks.

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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:

a. As of quarter end, the plan had approximately $12.3 million in assets, down from $13.8 million at the prior quarter end. During the quarter, the plan had no contributions, withdrawals/payments of approximately $376 thousand, and fees of approximately $1.3 thousand.

b. Total performance of the plan portfolio was (8.23%) net ((8.17%) gross) for the quarter, greater than the Plan's benchmark index performance of (8.45%). For the year, the plan return was (6.40%) net, (6.16%) gross, in line with the benchmark performance of (6.39%).

City of Dover
Police Pension Plan
Quarterly Return Summary

Month End	BMV	Contribution	Withdrawls	Fees	Gain	EMV	POLICE-NET RETURN	POLICE GROSS-RETURN
1/31/2018	$ 13,586,621.90	$ 425,000.00	$ 128,604.08	$ 433.86	$ 365,192.99	$ 14,247,776.95	2.64%	2.66%
2/28/2018	$ 14,247,776.95	$ -	$ 132,169.78	$ 444.74	$ (479,768.82)	$ 13,635,393.61	-3.40%	-3.38%
3/31/2018	$ 13,635,393.61	$ 125,000.00	$ 129,647.78	$ 441.46	$ (47,523.18)	$ 13,582,781.19	-0.35%	-0.33%
4/30/2018	$ 13,582,781.19	$ -	$ 125,346.38	$ 432.76	$ (39,188.31)	$ 13,417,813.74	-0.29%	-0.27%
5/31/2018	$ 13,417,813.74	$ -	$ 126,717.37	$ 432.13	$ 180,515.14	$ 13,471,179.38	1.36%	1.38%
6/30/2018	$ 13,471,179.38	$ 290,000.00	$ 126,836.47	$ 435.10	$ (1,658.32)	$ 13,632,249.49	-0.01%	0.01%
7/31/2018	$ 13,632,249.49	$ -	$ 126,836.47	$ 431.51	$ 277,417.00	$ 13,782,398.51	2.05%	2.07%
8/31/2018	$ 13,782,398.51	$ -	$ 126,836.47	$ 436.12	$ 130,709.45	$ 13,785,835.37	0.96%	0.98%
9/30/2018	$ 13,785,835.37	$ 250,000.00	$ 126,836.47	$ 438.23	$ (116,182.67)	$ 13,792,378.00	-0.85%	-0.83%
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%
		$ -	$ 376,398.14	$ 1,271.24	$ (1,115,836.12)	Quarterly Return	-8.23%	-8.17%
		$ 1,090,000.00	$ 1,526,229.41	$ 5,197.15	$ (846,322.84)	One Year Return	-6.40%	-6.16%

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	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	6.73%	CLOSED - no longer accepting contributions
Large Cap Growth	LCG	Vanguard Growth Index	4.27%	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	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	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 an adjustment 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. During the quarter, the Vanguard Growth Index was transferred from the Institutional Class to the Admiral Class. Vanguard made this change for any accounts with a balance less than the $5 million minimum.

f. The majority of plan investments have performance and rankings generally in line with their peer groups and benchmarks, as well as risk analytics that rank well to their peer groups. There are no recommended changes or adjustments to the current fund managers at this time.

   i. PGIM QMA Small Cap Value
      - During 2018, the fund trailed its benchmark by 596 bps, causing longer term returns to decline.
      - Return rank versus peers is still within top ½ of small cap value funds for three and 5-yr periods.
      - Risk-adjusted measures remain around peer group median over all time periods.
      - Recommendation: Begin to monitor fund for improvements in performance.

   ii. Oppenheimer International Growth
      - We continue to see underperformance with this fund. The fund trailed its benchmark by 263 bps for the quarter and 824 bps over 1 year.
      - Return rank versus peers has declined to the bottom quartile over 1 and 3 years, bottom 50% over 5 years.
      - Risk-adjusted measures alpha and Sharpe have declined to the bottom quartile over 3 years and bottom half over 5 years.
      - Recommendation: Continue to monitor the fund (since Nov 2018).

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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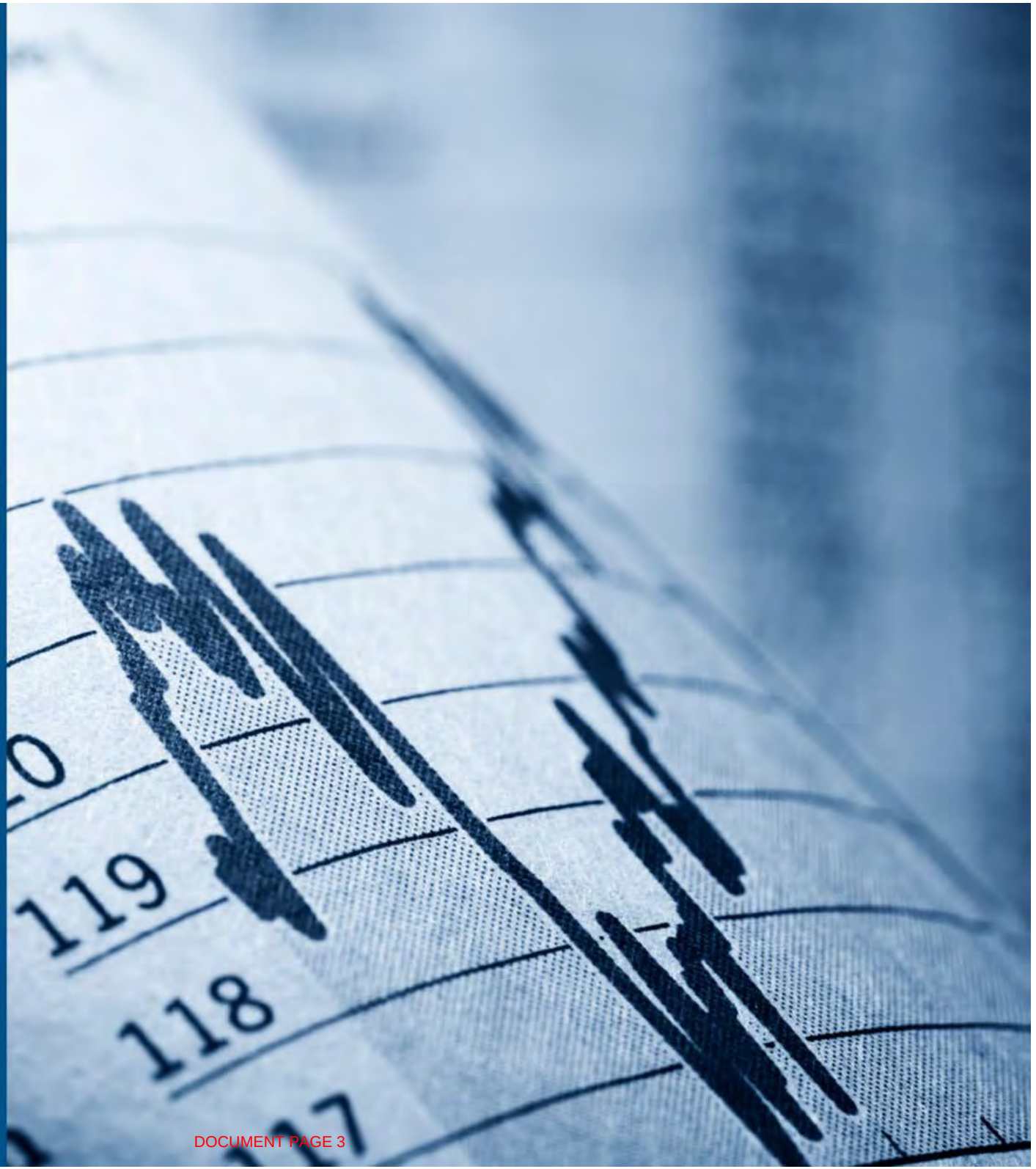
Quarterly Investment Monitor

Summary Report for the Quarter Ending December 31, 2018

Prepared for
City of Dover, Delaware Police Pension Plan

Milliman



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Milliman | Quarterly Investment Monitor

Market Indices - 4th Quarter 2018

Index	YTD	3 Months	6 Months	1 Year	3 Years	5 Years	10 Years
BofAML US Treasury Bill 3 Mon	1.87	0.56	1.06	1.87	1.02	0.63	0.37
BBgBarc US Govt 1-3 Yr TR USD	1.58	1.31	1.51	1.58	0.96	0.82	1.03
BBgBarc US Govt/Credit 1-3 Yr TR USD	1.60	1.18	1.52	1.60	1.24	1.03	1.52
BBgBarc US Treasury US TIPS TR USD	-1.26	-0.42	-1.24	-1.26	2.11	1.69	3.64
BBgBarc US Agg Float Adj TR USD	-0.08	1.58	1.62	-0.08	2.09	2.50	NA
BBgBarc US Govt/Credit Interm TR USD	0.88	1.65	1.87	0.88	1.70	1.86	2.90
BBgBarc US Government Long TR USD	-1.79	4.16	1.22	-1.79	2.63	5.90	4.15
BBgBarc US Long Credit TR USD	-6.76	-1.64	-0.40	-6.76	4.87	5.08	7.40
BBgBarc US Govt/Credit Long TR USD	-4.68	0.78	0.31	-4.68	4.03	5.37	5.88
BBgBarc US Corporate High Yield TR USD	-2.08	-4.53	-2.24	-2.08	7.23	3.83	11.12
DJ Industrial Average TR USD	-3.48	-11.31	-2.77	-3.48	12.94	9.70	13.16
S&P 500 TR	-4.38	-13.52	-6.85	-4.38	9.26	8.49	13.12
NASDAQ Composite TR USD	-2.84	-17.29	-11.16	-2.84	11.10	10.97	16.76
Russell 1000 Value TR USD	-8.27	-11.72	-6.69	-8.27	6.95	5.95	11.18
Russell 1000 TR USD	-4.78	-13.82	-7.42	-4.78	9.09	8.21	13.28
Russell 1000 Growth TR USD	-1.51	-15.89	-8.17	-1.51	11.15	10.40	15.29
Russell 2000 Value TR USD	-12.86	-18.67	-17.36	-12.86	7.37	3.61	10.40
Russell 2000 TR USD	-11.01	-20.20	-17.35	-11.01	7.36	4.41	11.97
Russell 2000 Growth TR USD	-9.31	-21.65	-17.33	-9.31	7.24	5.13	13.52
MSCI EAFE NR USD	-13.79	-12.54	-11.35	-13.79	2.87	0.53	6.32
MSCI EAFE Small Cap NR USD	-17.89	-16.05	-16.79	-17.89	3.73	3.06	10.51
MSCI EM NR USD	-14.58	-7.47	-8.49	-14.58	9.25	1.65	8.02
FTSE NAREIT All REITs TR	-4.10	-6.11	-5.15	-4.10	4.62	8.29	12.41

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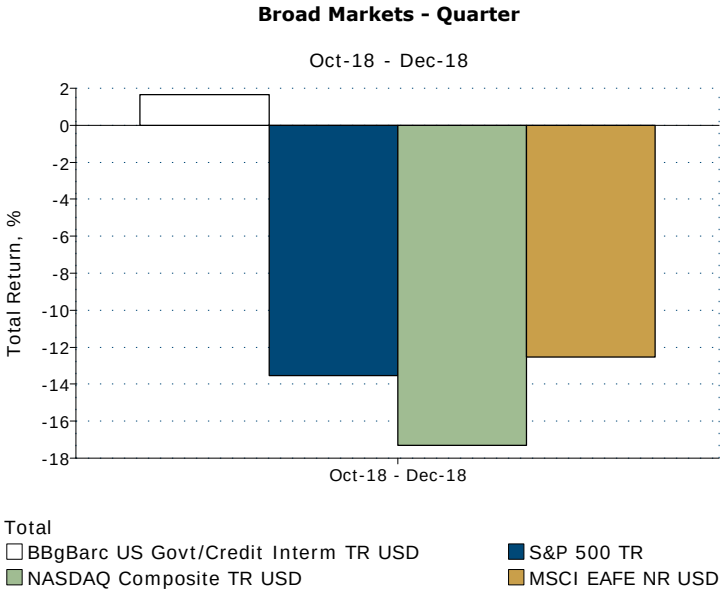
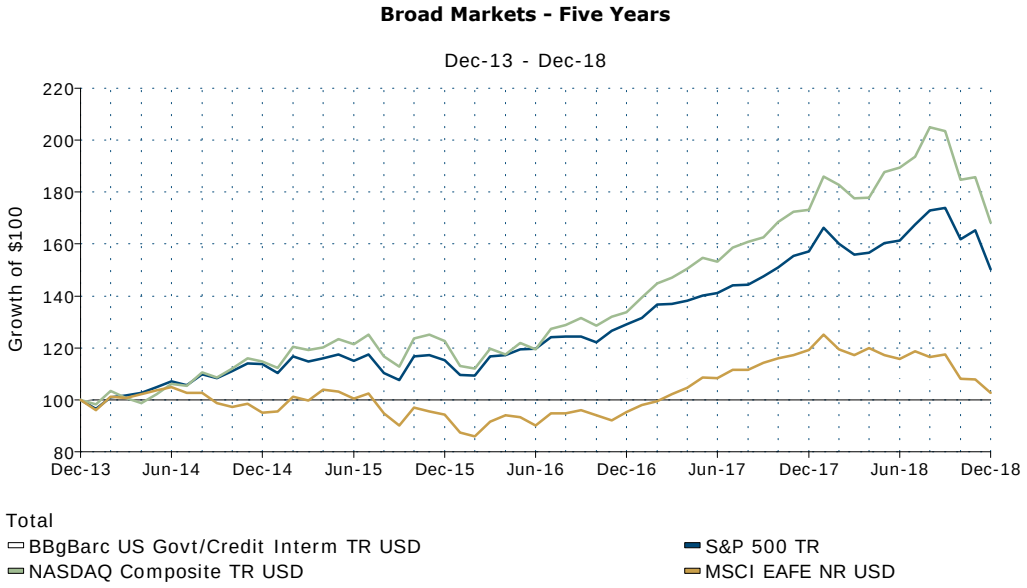
Broad Market Commentary - 4th Quarter 2018





Market Commentary

- Market volatility rose during the quarter amid a tightening US monetary policy and uncertainties in international markets.
- U.S. stocks ended the fourth quarter with the Dow down (11.31%) and the S&P 500 down (13.52%). For the year, the Down and S& P 500 are down (3.48%) and (4.38%), respectively.
- International markets declined sharply as trade war tensions continued into the fourth quarter. The MSCI EAFE, MSCI EAFE Small Cap and the MSCI EM finished the quarter down (12.54%).
- The Federal Reserve adjusted the benchmark rate again to a target of 2.25-2.50%, it was the fourth adjustment for the year. The Fed indicated that they may slow the pace of future adjustments in 2019 based on their assessment of economic conditions.
- Unemployment rose slightly to 3.9% 419,000 workers entered the workforce.
- The price of oil dropped steeply from $76, its high for the year, to $45 a barrel during the quarter.

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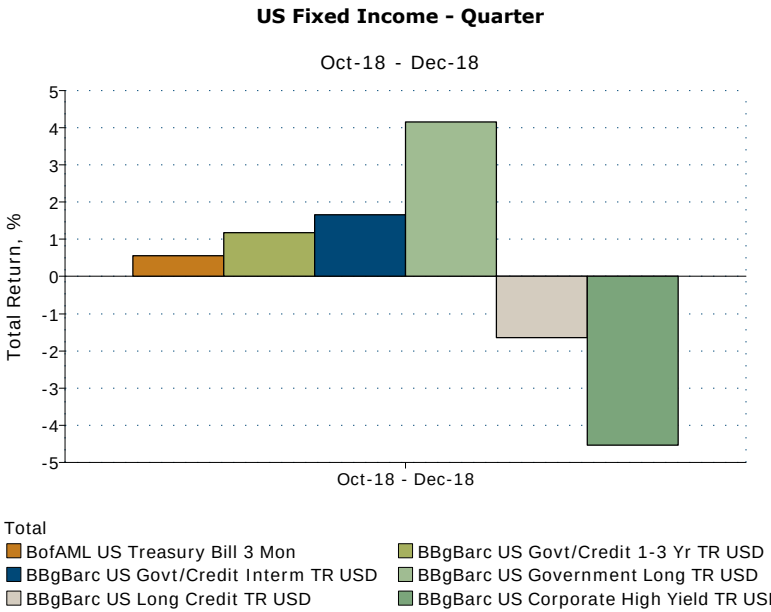
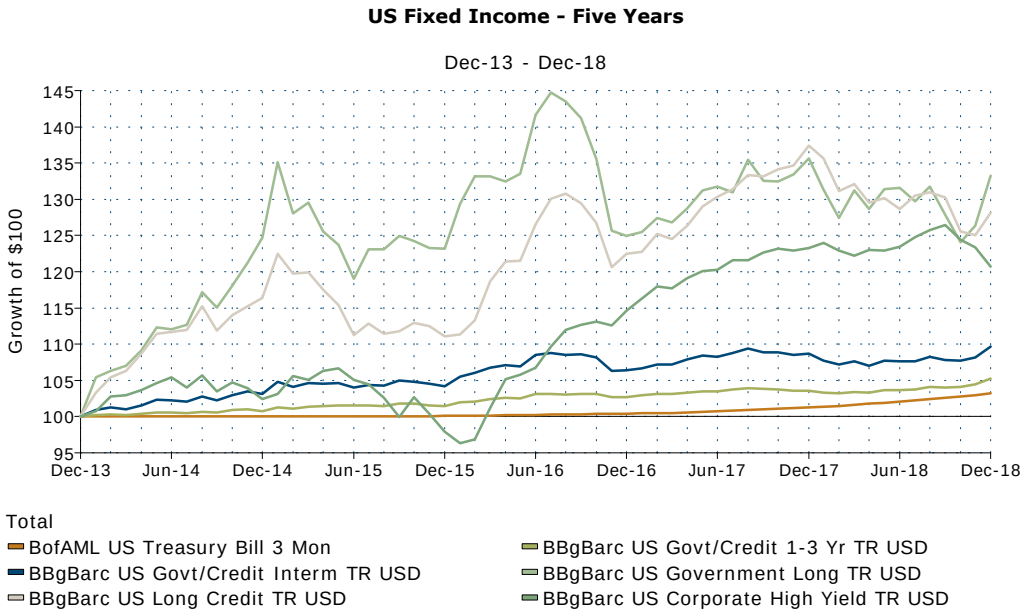
US Fixed Income Market Commentary - 4th Quarter 2018





US Bond Market

- The Fed adjusted the benchmark rate again to a target of 2.25-2.50%.
- The yield curve continued to flattened over the quarter. By the end of the quarter, the yield on 30-year treasuries was less than 60 basis ponts higher than the yield on the 1-month treasury.
- Core PCE remained level at the Fed's 2% target.
- Fixed income investments experienced mostly positive returns for the quarter and the year.
- TIPS and longer-term issues experienced negative returns.

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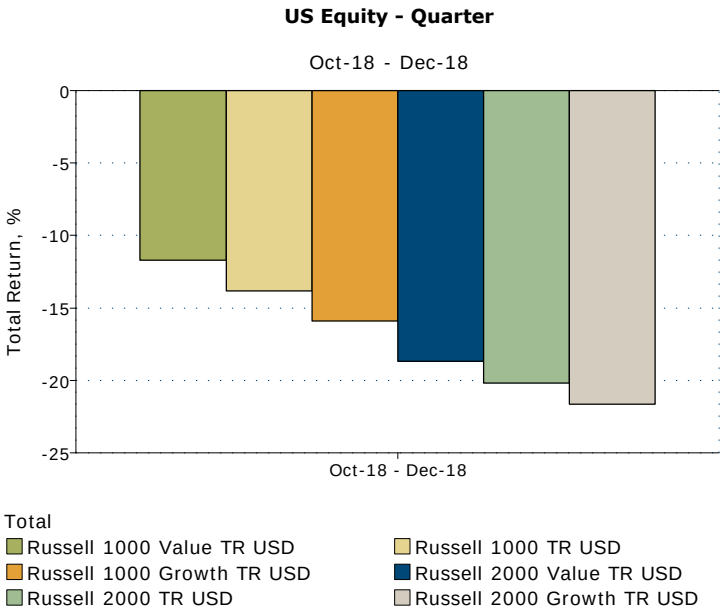
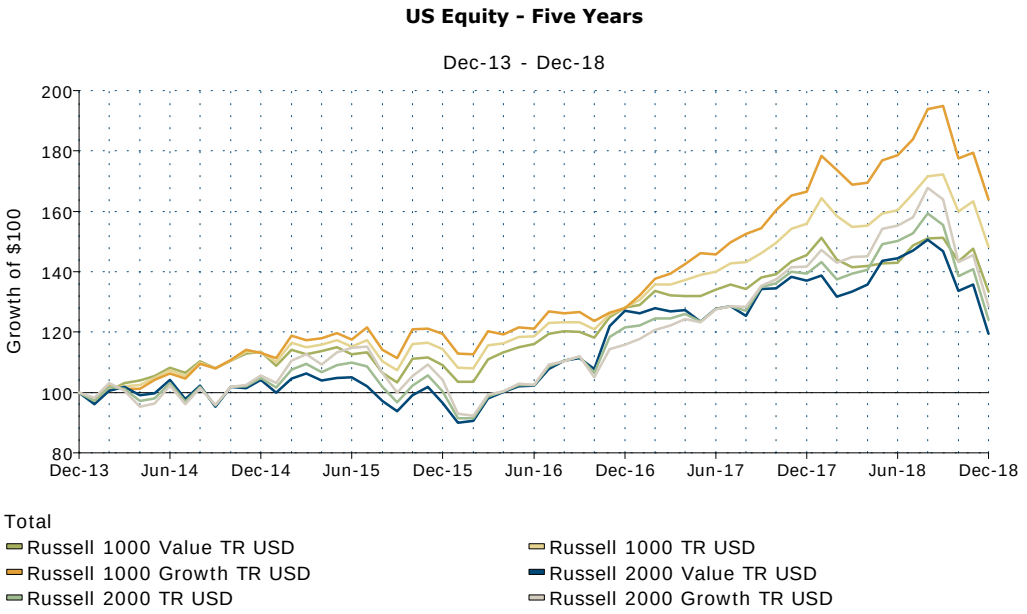
US Equity Market Commentary - 4th Quarter 2018





US Stock Market

- Domestic markets heightened volatility over the quarter. The S&P 500 and Dow finished the quarter down, (13.52%) and (11.31%), respectively. For the year, the Dow was down (3.48%) and the S&P 500 fell (4.38%).
- Large, mid and small cap growth stocks declined more than value, with the Russell 1000, Russell Midcap Growth, and Russell 2000 Growth benchmarks falling more sharply than their value counterparts during the quarter. However, growth fared better than value for the year.
- REITs also fell during the quarter.

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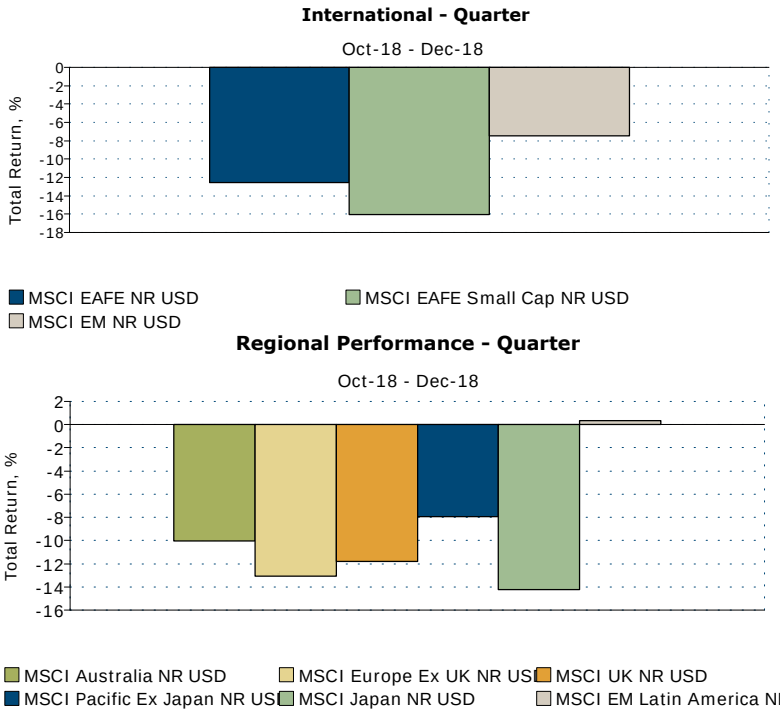
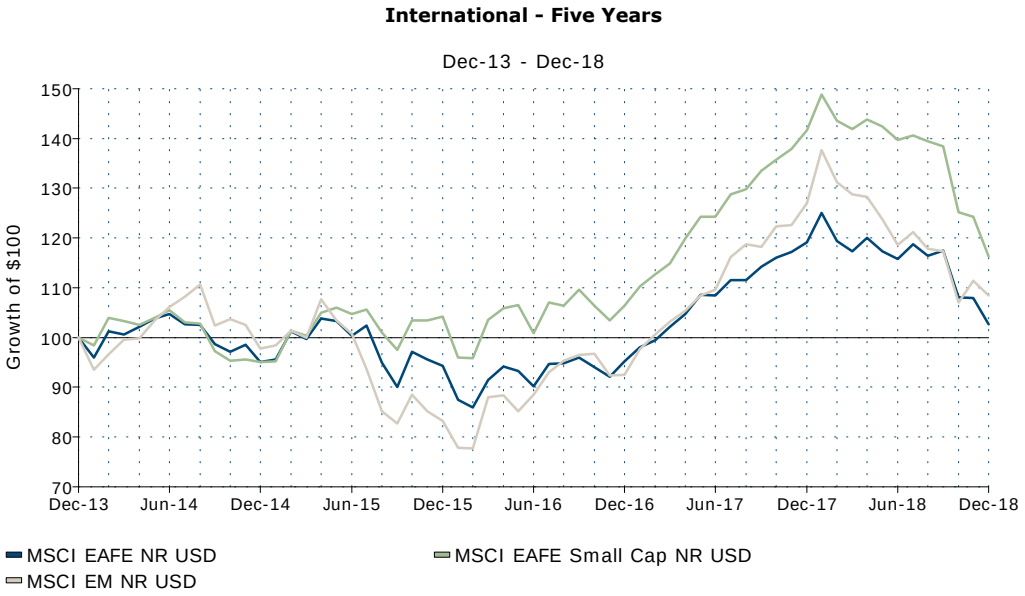
International Market Commentary - 4th Quarter 2018





International Markets

- Global markets returns also declined during the quarter. The MSCI EAFE posted a (12.54%) decline, while MSCI EM index fell (7.47%). For the year, The MSCI EAFE was down (13.79%) and the MSCI EM ended down (14.58%).
- Small-cap international stocks also fell, the MSCI Small Cap posted a return of (16.05%) for the quarter and (17.89%) for the year.
- Trade war tensions and uncertainties regarding Britain's exit from the European Union impacted global market returns during the quarter.

Performance Summary

Asset Allocation

	Balances As of 12/31/2018	Percent As of 12/31/2018	Balances As of 09/30/2018	Percent As of 09/30/2018	Notes
Wells Fargo Treasury Plus MMkt Inst	$854,606	6.95%	$423,367	3.19%	PISXX
Vanguard Short-Term Bond Index Adm	$737,258	5.99%	$827,385	6.24%	VBIRX
Vanguard Inflation-Protected Secs I	$620,949	5.05%	$688,008	5.19%	VIPIX
Vanguard Interm-Term Bond Index Adm	$369,457	3.00%	$415,288	3.13%	VBILX
Columbia Strategic Income Inst3	$364,906	2.97%	$413,211	3.12%	CPHUX
Vanguard Long-Term Bond Index Investor	$307,524	2.50%	$344,915	2.60%	VBLTX
PIMCO Long Duration Total Return Instl	$306,744	2.49%	$344,343	2.60%	PLRIX
PGIM High Yield R6	$602,762	4.90%	$692,231	5.22%	PHYQX
Vanguard Equity-Income Adm	$1,047,779	8.52%	$1,103,287	8.32%	VEIRX
Vanguard PRIMECAP Core Inv	$885,697	7.20%	$1,037,102	7.82%	VPCCX
Vanguard Growth Index Admiral	$516,287	4.20%	$0	0.00%	VIGAX
Vanguard Growth Index Institutional	$0	0.00%	$485,439	3.66%	VIGIX
Vanguard Mid-Cap Value Index Admiral	$477,165	3.88%	$551,846	4.16%	VMVAX
Vanguard Mid Cap Index Admiral	$480,370	3.91%	$551,974	4.16%	VIMAX
PGIM QMA Small-Cap Value R6	$477,737	3.88%	$550,489	4.15%	TSVQX
Federated Kaufmann Small Cap Instl	$487,037	3.96%	$550,948	4.16%	FKAIX
Oppenheimer International Growth I	$853,960	6.94%	$951,588	7.18%	OIGIX
American Funds New Perspective R6	$849,788	6.91%	$960,036	7.24%	RNPGX
Vanguard Emerging Mkts Stock Idx Instl	$1,472,976	11.98%	$1,653,297	12.47%	VEMIX
Vanguard Real Estate Index Institutional	$586,528	4.77%	$709,346	5.35%	VGSNX
Plan Total	**$12,299,530**		**$13,254,100**		

Investment Policy Review - Active Management

Fund Name	Return Rank 3Y	Return Rank 5Y	Excess Return 3Y	Excess Return 5Y	Relative StdDev 3Y	Relative StdDev 5Y	Alpha Rank 3Y	Sharpe Rank 3Y	Alpha Rank 5Y	Sharpe Rank 5Y
Vanguard Inflation-Protected Secs I	26	12	-0.08	-0.01	1.04	1.03	43	30	14	13
Columbia Strategic Income Inst3	15	7	1.87	2.58	0.61	0.73	23	26	8	15
PIMCO Long Duration Total Return Instl	11	11	1.10	0.59	0.99	0.99	44	56	44	44
PGIM High Yield R6	8	3	-0.07	0.44	0.95	0.93	18	12	14	14
Vanguard Equity-Income Adm	14	7	1.73	1.65	0.90	0.94	12	9	8	5
Vanguard PRIMECAP Core Inv	4	1	1.35	1.82	1.18	1.11	13	11	2	1
PGIM QMA Small-Cap Value R6	41	46	-2.38	-0.93	1.10	1.07	59	50	50	48
Federated Kaufmann Small Cap Instl	1	1	9.24	6.74	1.04	1.03	1	1	1	1
Oppenheimer International Growth I	87	66	-2.96	-2.14	1.07	1.05	88	87	68	64
American Funds New Perspective R6	18	9	1.06	2.16	1.07	1.02	25	21	9	8

Definitions

Return Rank - Fund's category percentile return rank, a value less than 50 (1 is the best and 100 is the worst) implies the fund is beating more than 50% of its peer group.

Excess Return - Fund's excess return over its benchmark, a value greater than 0 implies the fund's return is higher than its benchmark.

Relative StdDev - Fund's standard deviation relative to its benchmark, a value less than 1 implies the fund's standard deviation is lower than its benchmark.

Alpha Rank - Fund's category percentile Alpha rank, a value less than 50 (1 is the best and 100 is the worst) implies the fund is beating more than 50% of its peer group.

Sharpe Rank - Fund's category percentile Sharpe Ratio rank, a value less than 50 (1 is the best and 100 is the worst) implies the fund is beating more than 50% of its peer group.

Investment Policy Review - Passive Management

Fund Name	Excess Return 3Y	Excess Return 5Y	Beta 3Y	Tracking Error 3Y	Beta 5Y	Tracking Error 5Y	Expense Ratio
Vanguard Short-Term Bond Index Adm	-0.07	-0.08	1.01	0.14	1.02	0.15	0.07
Vanguard Interm-Term Bond Index Adm	-0.12	-0.06	1.01	0.27	1.02	0.34	0.07
Vanguard Long-Term Bond Index Investor	-0.01	0.03	1.01	0.59	1.03	0.78	0.15
Vanguard Growth Index Admiral	-0.03	-0.05	1.00	0.03	1.00	0.03	0.05
Vanguard Mid-Cap Value Index Admiral	-0.03	-0.04	1.00	0.04	1.00	0.04	0.07
Vanguard Mid Cap Index Admiral	-0.02	-0.04	1.00	0.02	1.00	0.02	0.05
Vanguard Emerging Mkts Stock Idx Instl	0.67	-0.44	0.98	1.83	0.99	2.06	0.11
Vanguard Real Estate Index Institutional	-0.57	-0.39	0.99	0.54	0.99	0.42	0.10

Definitions

Excess Return - Fund's excess return over its benchmark, a value greater than 0 implies the fund's return is higher than its benchmark.

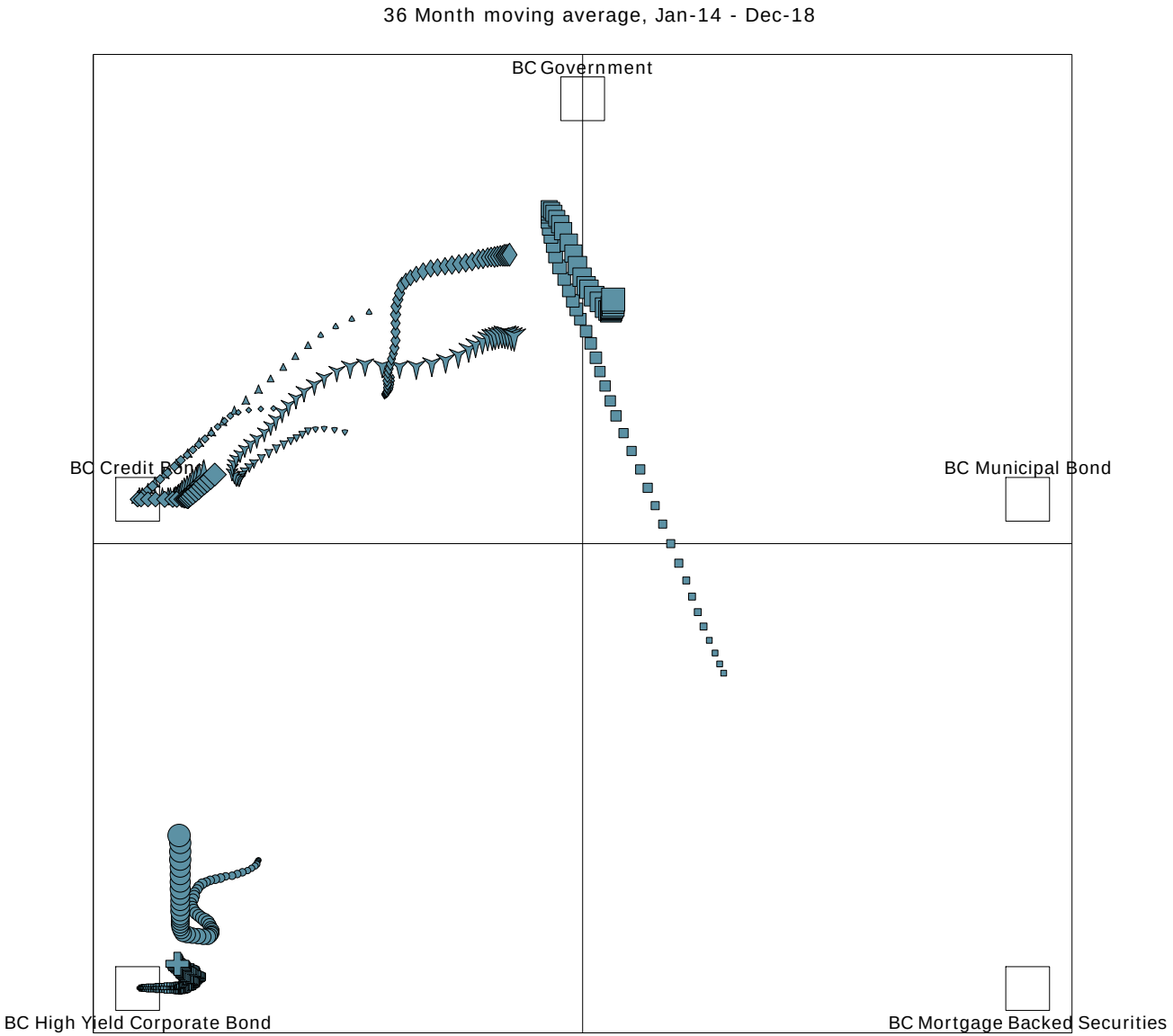
Beta - Fund's Beta or sensitivity to movements compared to its benchmark, a value of 1 implies its moving in sync with its benchmark.

Tracking Error - Fund's Tracking Error versus its benchmark, a value of 0 implies the Fund's ups and downs are the same size as its benchmark.

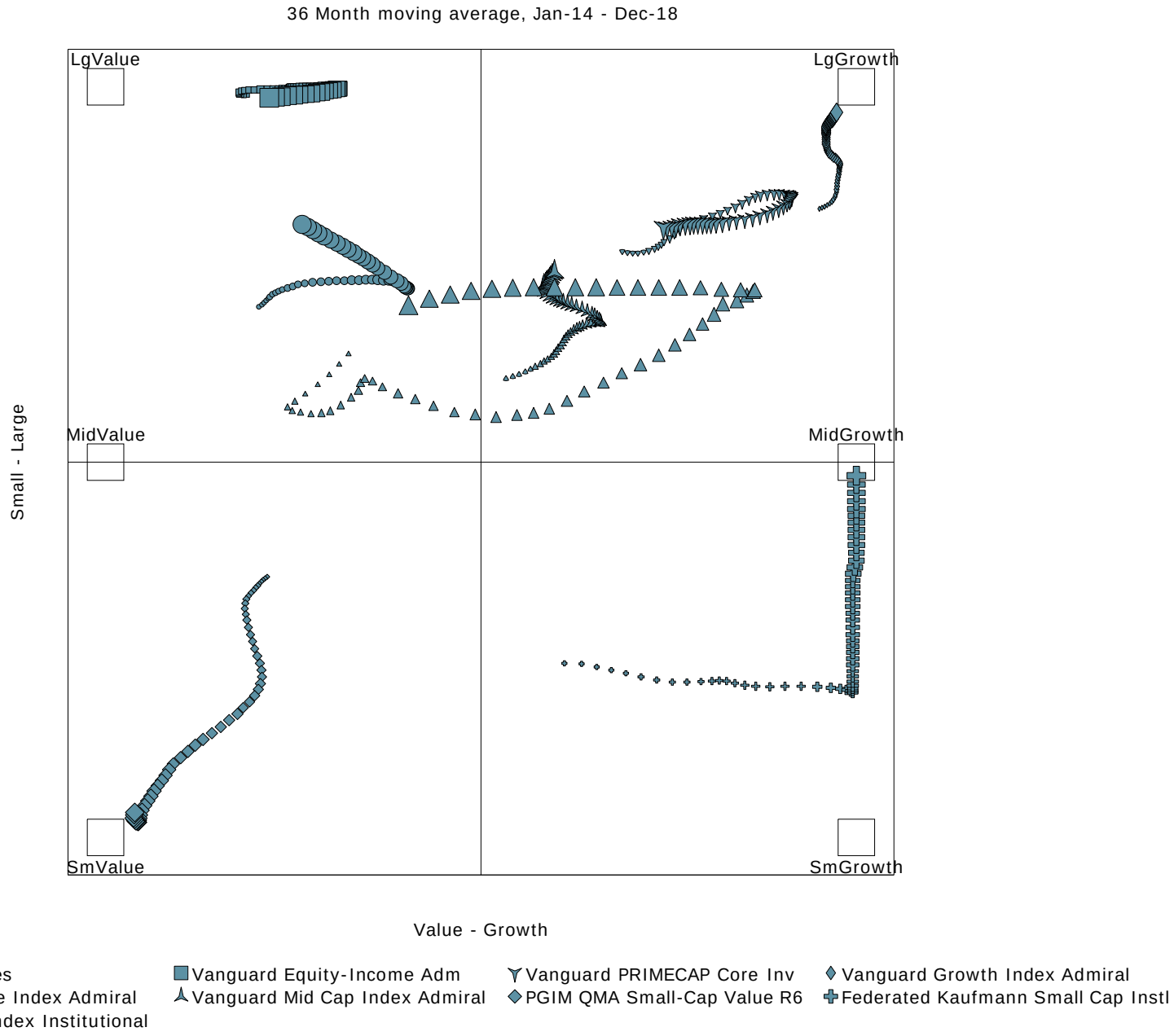
Investment Option Return Summary

Asset Class	Fund Name	3 Months	YTD	1 Year	3 Years	5 Years	10 Years	Ticker	Mstar Rating	Expense Ratio
Money Market-Taxable	Wells Fargo Treasury Plus MMkt Inst	0.53	1.68	1.68	0.86	0.52	0.27	PISXX	NA	0.20
	ICE BofAML 91-day Tbill Auction Avg	*0.56*	*1.87*	*1.87*	*1.02*	*0.63*	*0.37*	*N/A*	*NA*	*NA*
Short-term Bond	Vanguard Short-Term Bond Index Adm	1.44	1.35	1.35	1.34	1.24	1.98	VBIRX	3.00	0.07
	BBgBarc US 1-5Y GovCredit FlAdj TR USD	*1.46*	*1.38*	*1.38*	*1.40*	*1.32*	*NA*	*N/A*	*NA*	*NA*
Inflation-Protected Bond	Vanguard Inflation-Protected Secs I	(0.46)	(1.40)	(1.40)	2.04	1.68	3.55	VIPIX	4.00	0.07
	BBgBarc US Treasury US TIPS TR USD	*(0.42)*	*(1.26)*	*(1.26)*	*2.11*	*1.69*	*3.64*	*N/A*	*NA*	*NA*
Intermediate-term Bond	Vanguard Interm-Term Bond Index Adm	1.95	(0.17)	(0.17)	2.15	2.92	4.45	VBILX	3.00	0.07
	BBgBarc US 5-10Y GovCredit FlAdj TR USD	*2.04*	*(0.07)*	*(0.07)*	*2.27*	*2.98*	*NA*	*N/A*	*NA*	*NA*
Nontraditional Bond	Columbia Strategic Income Inst3	(1.18)	(0.64)	(0.64)	4.57	3.66	6.38	CPHUX	5.00	0.61
	BBgBarc Global Aggregate TR USD	*1.20*	*(1.20)*	*(1.20)*	*2.70*	*1.08*	*2.49*	*N/A*	*NA*	*NA*
Long-term Bond	Vanguard Long-Term Bond Index Investor	1.09	(4.51)	(4.51)	4.02	5.40	5.79	VBLTX	2.00	0.15
Long-term Bond	PIMCO Long Duration Total Return Instl	0.69	(3.86)	(3.86)	5.13	5.95	6.53	PLRIX	4.00	1.00
	BB Long Government/Credit	*0.78*	*(4.68)*	*(4.68)*	*4.03*	*5.37*	*5.88*	*N/A*	*NA*	*NA*
High Yield Bond	PGIM High Yield R6	(4.14)	(1.18)	(1.18)	7.16	4.28	10.20	PHYQX	5.00	0.42
	BB High Yield Corporate Bond	*(4.53)*	*(2.08)*	*(2.08)*	*7.23*	*3.83*	*11.12*	*N/A*	*NA*	*NA*
Large Value	Vanguard Equity-Income Adm	(9.36)	(5.65)	(5.65)	8.68	7.60	12.27	VEIRX	4.00	0.17
	Russell 1000 Value Index	*(11.72)*	*(8.27)*	*(8.27)*	*6.95*	*5.95*	*11.18*	*N/A*	*NA*	*NA*
Large Blend	Vanguard PRIMECAP Core Inv	(14.50)	(4.90)	(4.90)	10.48	10.18	14.73	VPCCX	5.00	0.46
	MSCI US Prime Market 750 GR USD	*(13.75)*	*(4.61)*	*(4.61)*	*9.13*	*8.36*	*13.26*	*N/A*	*NA*	*NA*
Large Growth	Vanguard Growth Index Admiral	(16.30)	(3.34)	(3.34)	9.45	9.00	14.52	VIGAX	4.00	0.05
	CRSP US Large Cap Growth TR USD	*(16.32)*	*(3.34)*	*(3.34)*	*9.47*	*9.05*	*NA*	*N/A*	*NA*	*NA*
Mid-Cap Value	Vanguard Mid-Cap Value Index Admiral	(15.06)	(12.42)	(12.42)	5.71	5.75	13.45	VMVAX	4.00	0.07
	CRSP US Mid Cap Value TR USD	*(15.06)*	*(12.42)*	*(12.42)*	*5.75*	*5.79*	*NA*	*N/A*	*NA*	*NA*
Mid-Cap Blend	Vanguard Mid Cap Index Admiral	(15.46)	(9.23)	(9.23)	6.38	6.21	13.87	VIMAX	4.00	0.05
	CRSP US Mid Cap TR USD	*(15.46)*	*(9.22)*	*(9.22)*	*6.40*	*6.24*	*NA*	*N/A*	*NA*	*NA*
Small Value	PGIM QMA Small-Cap Value R6	(20.13)	(18.82)	(18.82)	5.00	2.67	10.68	TSVQX	3.00	0.63
	Russell 2000 Value Index	*(18.67)*	*(12.86)*	*(12.86)*	*7.37*	*3.61*	*10.40*	*N/A*	*NA*	*NA*
Small Growth	Federated Kaufmann Small Cap Instl	(15.90)	7.40	7.40	16.48	11.88	16.49	FKAIX	5.00	0.91
	Russell 2000 Growth TR USD	*(21.65)*	*(9.31)*	*(9.31)*	*7.24*	*5.13*	*13.52*	*N/A*	*NA*	*NA*
Foreign Large Growth	Oppenheimer International Growth I	(14.63)	(19.22)	(19.22)	0.26	(0.54)	8.10	OIGIX	2.00	0.69
	MSCI EAFE Large Growth NR USD	*(12.00)*	*(10.98)*	*(10.98)*	*3.22*	*1.60*	*6.94*	*N/A*	*NA*	*NA*
World Large Stock	American Funds New Perspective R6	(13.15)	(5.56)	(5.56)	7.66	6.42	11.76	RNPGX	4.00	0.45
	MSCI AC World Index ND USD	*(12.75)*	*(9.42)*	*(9.42)*	*6.60*	*4.26*	*9.46*	*N/A*	*NA*	*NA*
Diversified Emerging Mkts	Vanguard Emerging Mkts Stock Idx Instl	(6.30)	(14.54)	(14.54)	7.88	1.36	7.52	VEMIX	3.00	0.11
	FTSE EMs AC China A Incl (US RIC) NR USD	*(6.43)*	*(14.77)*	*(14.77)*	*7.21*	*1.80*	*8.30*	*N/A*	*NA*	*NA*
Real Estate	Vanguard Real Estate Index Institutional	(6.46)	(5.93)	(5.93)	2.31	7.41	12.07	VGSNX	3.00	0.10
	MSCI US REIT GR USD	*(6.72)*	*(4.57)*	*(4.57)*	*2.88*	*7.80*	*12.17*	*N/A*	*NA*	*NA*
Total Plan	POLICE GROSS-RETURN	(8.17)	(6.16)	(6.16)	6.19	5.17	7.88	N/A	NA	NA
Total Plan	POLICE-NET RETURN	(8.23)	(6.40)	(6.40)	5.91	4.88	7.58	N/A	NA	NA
	Police Plan Policy Index	*(8.45)*	*(6.39)*	*(6.39)*	*5.92*	*4.79*	*7.89*	*N/A*	*NA*	*NA*

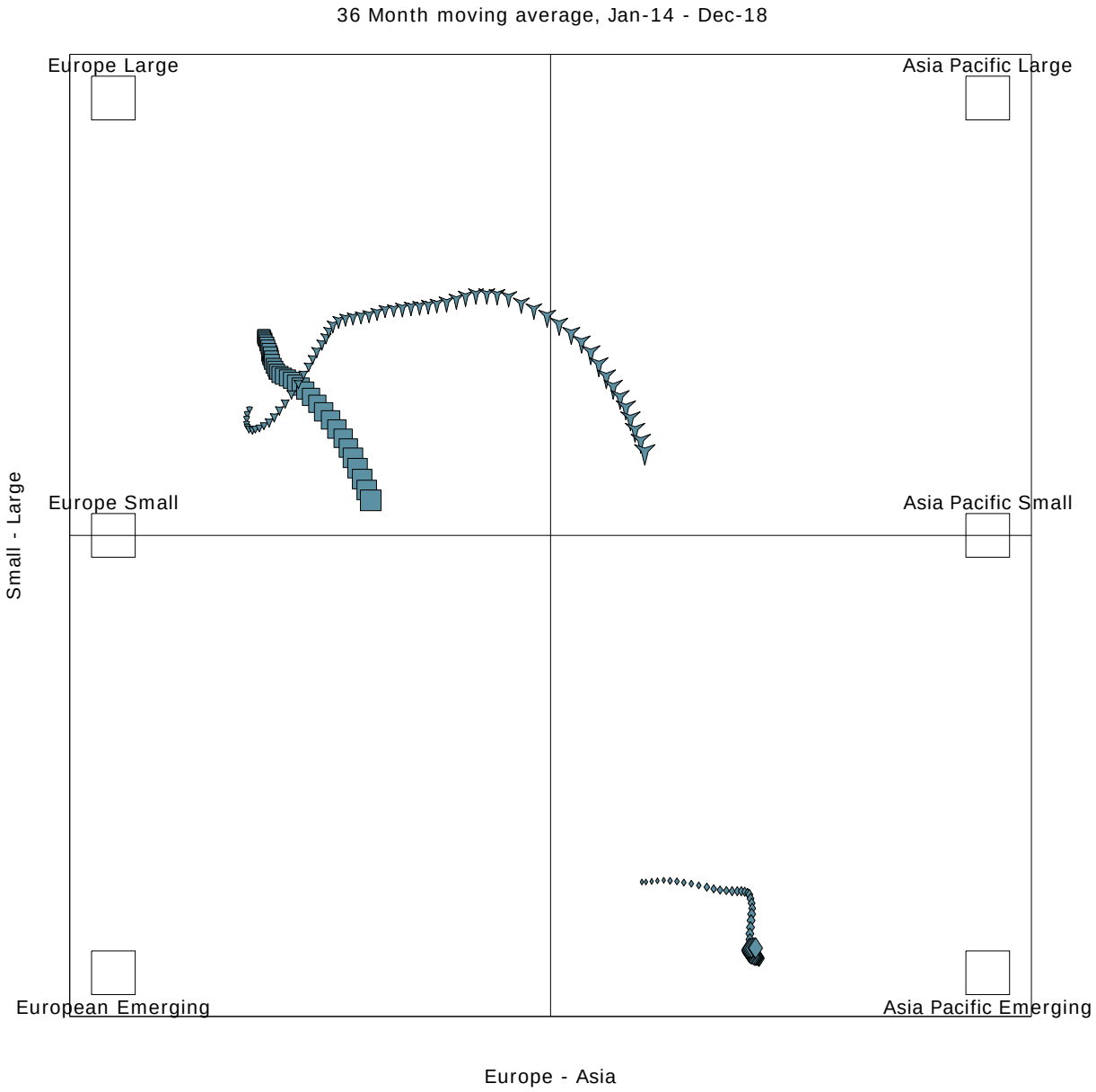
U.S. Fixed Income Style Map



U.S. Equity Style Map



International Equity Style Map

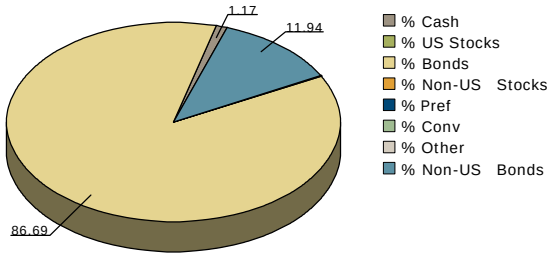


Core Fund Review

Milliman | Quarterly Investment Monitor

Data as of 12/31/2018

Vanguard Short-Term Bond Index Adm



Portfolio Region	
% United States	NA
% Canada	NA
% Latin America	NA
% United Kingdom	NA
% Eurozone	NA
% Europe - ex Euro	NA
% Europe - Emerging	NA
% Africa	NA
% Middle East	NA
% Japan	NA
% Australasia	NA
% Asia - Developed	NA
% Asia - Emerging	NA

Portfolio Structure	
% Cash	1.17
% US Stocks	0.00
% Bonds	86.69
% Non-US Stocks	0.00
% Pref	0.00
% Conv	0.20
% Other	0.00
% Non-US Bonds	11.94

Sector Allocation	
% Basic Materials	NA
% Communication Services	NA
% Consumer Cyclical	NA
% Consumer Defensive	NA
% Healthcare	NA
% Industrials	NA
% Real Estate	NA
% Technology	NA
% Energy	NA
% Financial Services	NA
% Utilities	NA

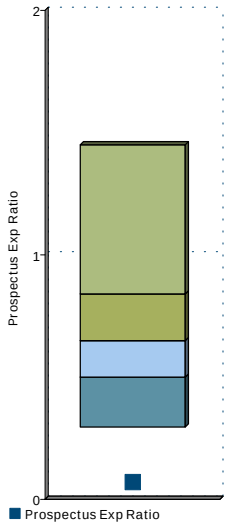
Credit Quality	
Avg Eff Duration	2.66
Effective Maturity	2.90
Avg Credit Quality	AA
AAA	70.13
AA	5.56
A	11.60
BBB	12.70
BB	0.00
B	0.00
Below B	0.01
NR/NA	0.00

Top Ten Holdings	
United States Treasury Notes 1.25%	2.10%
United States Treasury Notes 1.25%	1.77%
United States Treasury Notes 1.38%	1.65%
United States Treasury Notes 1.38%	1.46%
United States Treasury Notes 1.88%	1.21%
United States Treasury Notes 1.38%	1.20%
United States Treasury Notes 1.62%	1.20%
United States Treasury Notes 1.62%	1.17%
United States Treasury Notes 1.12%	1.17%
United States Treasury Notes 1.38%	1.16%

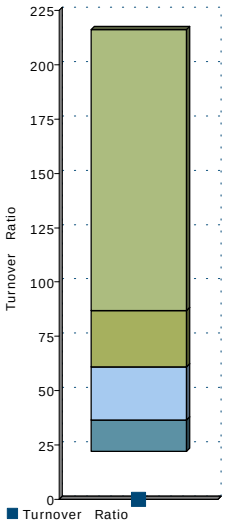
Portfolio Information	
Ticker	VBIRX
Morningstar Category	Short-term Bond
Avg Mkt Cap $MM	NA
Cat Med Mkt Cap $MM	22921.19
Net Assets $MM	53234.00
Turnover Ratio	0.05
% Assets in Top 10 Holdings	14.10
Total Number of Holdings	2554.00
Manager Name	Joshua C. Barrickman
Manager Tenure	5.86
Fund Incept Date	03/01/1994
Prospectus Exp Ratio	0.07
Phone Number	800-662-7447

Portfolio Ratings	
Mstar Rating	★★★
3 Year Mstar Rating	★★★
% Rank Cat 3 Yr	65
5 Year Mstar Rating	★★★
% Rank Cat 5 Yr	51
10 Year Mstar Rating	★★
% Rank Cat 10 Yr	74

Expense Ratio vs. Peer Group



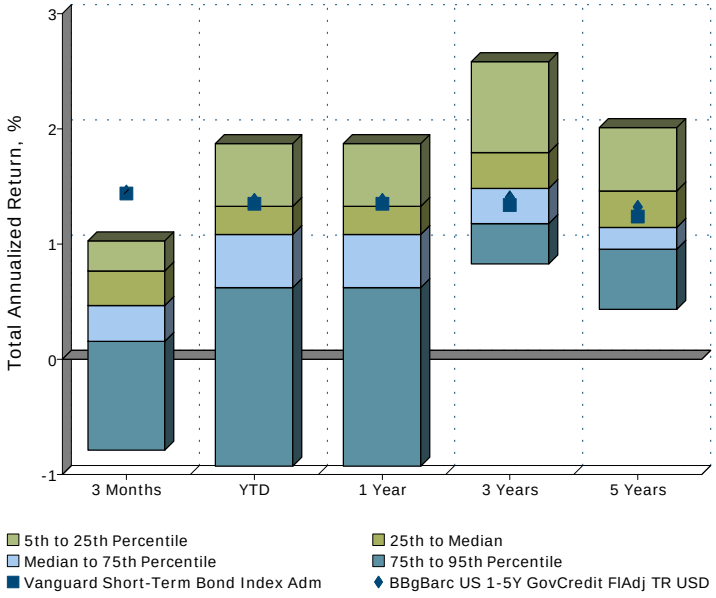
Turnover Ratio vs. Peer Group



Investment Strategy Summary

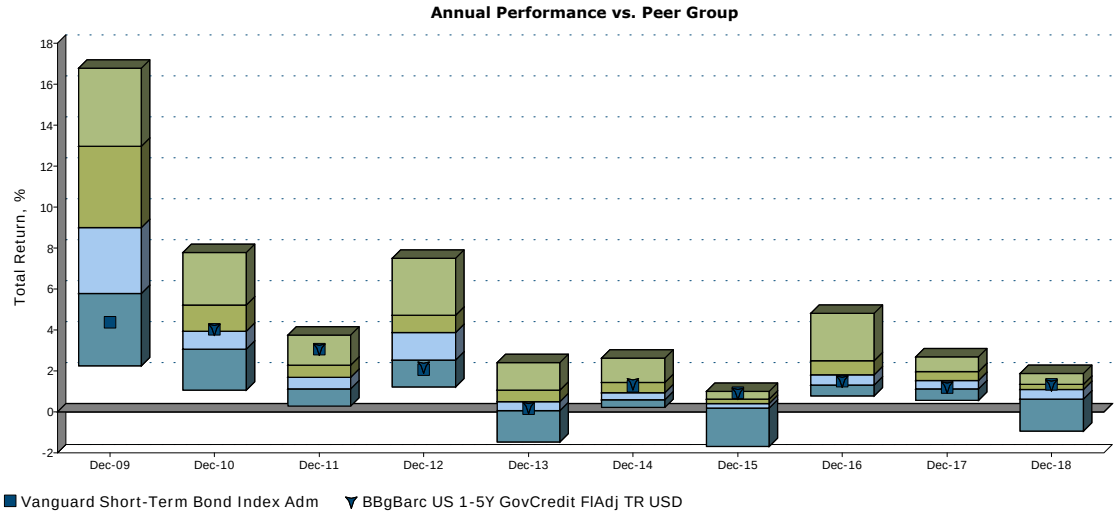
The investment seeks to track the performance of Bloomberg Barclays U.S. 1-5 Year Government/Credit Float Adjusted Index. Bloomberg Barclays U.S. 1-5 Year Government/Credit Float Adjusted Index includes all medium and larger issues of U.S. government, investment-grade corporate, and investment-grade 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 vs. Peer Group

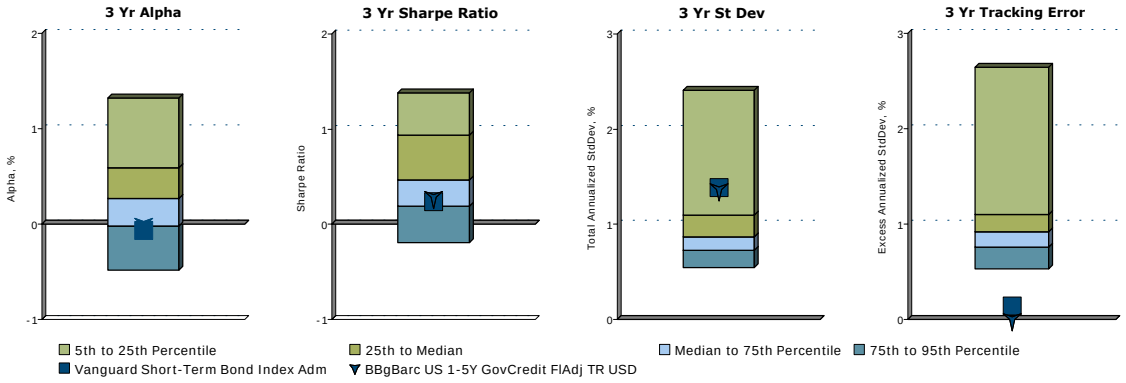


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Vanguard Short-Term Bond Index Adm	1.44	1.35	1.35	1.34	1.24
BBgBarc US 1-5Y GovCredit FlAdj TR USD	1.46	1.38	1.38	1.40	1.32
Universe(5%)	1.03	1.87	1.87	2.58	2.01
Universe(25%)	0.77	1.33	1.33	1.79	1.46
Universe(Median)	0.47	1.08	1.08	1.48	1.14
Universe(75%)	0.16	0.62	0.62	1.18	0.96
Universe(95%)	-0.79	-0.93	-0.93	0.83	0.43

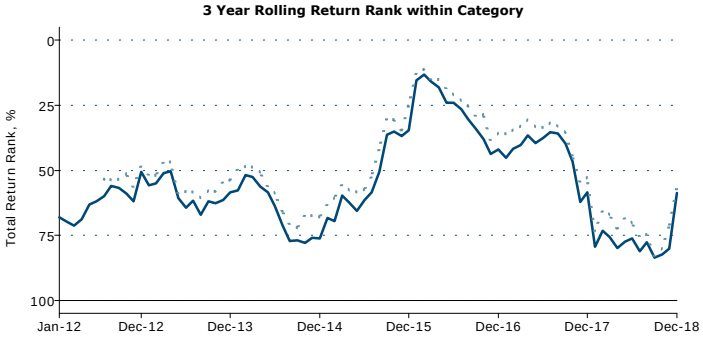
Vanguard Short-Term Bond Index Adm

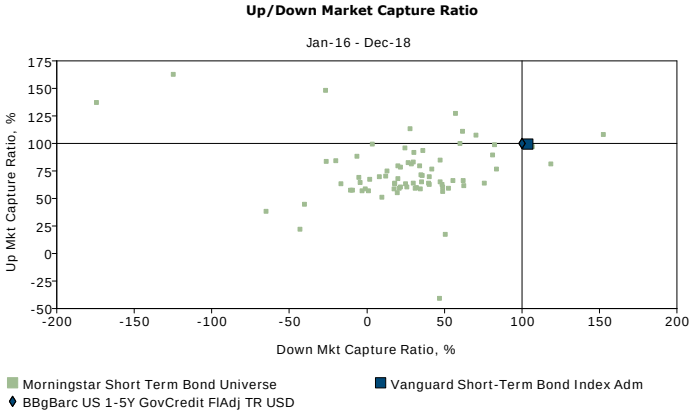


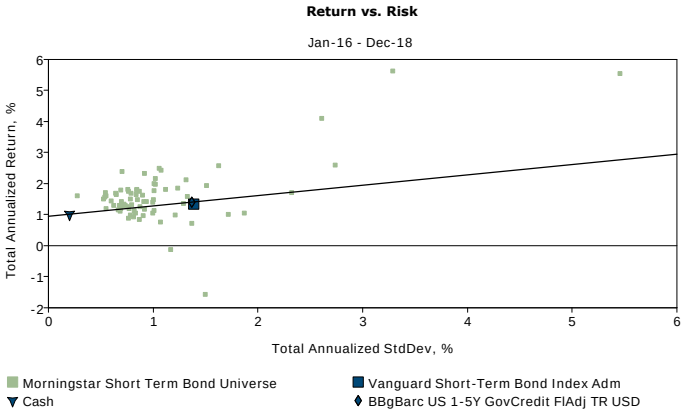
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vanguard Short-Term Bond Index Adm	4.38	4.03	3.08	2.05	0.17	1.26	0.92	1.49	1.18	1.35
BBgBarc US 1-5Y GovCredit FlAdj TR USD	NA	4.08	3.13	2.24	0.29	1.43	0.97	1.57	1.27	1.38



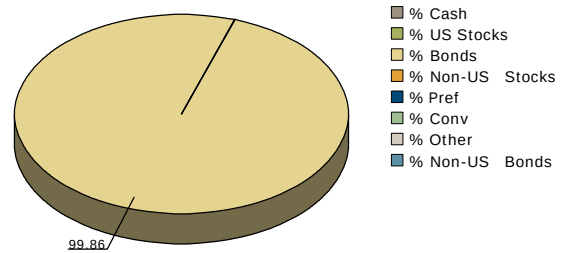
MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Vanguard Short-Term Bond Index Adm	-0.07	1.01	98.97	0.24	1.39	0.14	3.49
BBgBarc US 1-5Y GovCredit FlAdj TR USD	0.00	1.00	100.00	0.29	1.37	0.00	3.99
Universe(5%)	1.32	0.88	91.49	1.38	2.41	2.65	175.05
Universe(25%)	0.59	0.58	76.22	0.94	1.10	1.10	33.27
Universe(Median)	0.27	0.47	59.84	0.46	0.87	0.92	14.29
Universe(75%)	-0.02	0.37	37.65	0.19	0.73	0.76	5.38
Universe(95%)	-0.48	0.06	4.43	-0.19	0.55	0.53	1.30







Vanguard Inflation-Protected Secs I



Portfolio Region	
% United States	NA
% Canada	NA
% Latin America	NA
% United Kingdom	NA
% Eurozone	NA
% Europe - ex Euro	NA
% Europe - Emerging	NA
% Africa	NA
% Middle East	NA
% Japan	NA
% Australasia	NA
% Asia - Developed	NA
% Asia - Emerging	NA

Portfolio Structure	
% Cash	0.14
% US Stocks	0.00
% Bonds	99.86
% Non-US Stocks	0.00
% Pref	0.00
% Conv	0.00
% Other	0.00
% Non-US Bonds	0.00

Sector Allocation	
% Basic Materials	NA
% Communication Services	NA
% Consumer Cyclical	NA
% Consumer Defensive	NA
% Healthcare	NA
% Industrials	NA
% Real Estate	NA
% Technology	NA
% Energy	NA
% Financial Services	NA
% Utilities	NA

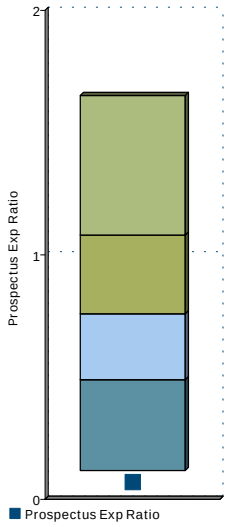
Credit Quality	
Avg Eff Duration	7.43
Effective Maturity	8.30
Avg Credit Quality	Government
AAA	100.00
AA	0.00
A	0.00
BBB	0.00
BB	0.00
B	0.00
Below B	0.00
NR/NA	0.00

Top Ten Holdings	
United States Treasury Notes 0.12%	5.70%
United States Treasury Notes 0.12%	4.15%
United States Treasury Notes 0.62%	3.82%
United States Treasury Notes 0.12%	3.81%
United States Treasury Notes 0.38%	3.75%
United States Treasury Notes 0.12%	3.74%
United States Treasury Notes 0.38%	3.72%
United States Treasury Notes 0.25%	3.71%
United States Treasury Notes 0.12%	3.69%
United States Treasury Notes 0.12%	3.46%

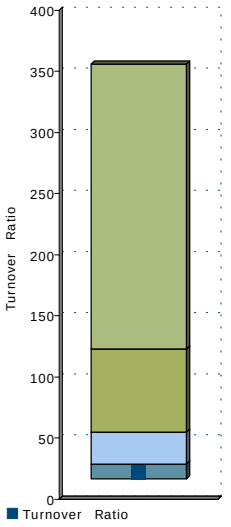
Portfolio Information	
Ticker	VIPIX
Morningstar Category	Inflation-Protected Bond
Avg Mkt Cap $MM	NA
Cat Med Mkt Cap $MM	15468.85
Net Assets $MM	26778.00
Turnover Ratio	22.00
% Assets in Top 10 Holdings	39.54
Total Number of Holdings	44.00
Manager Name	Gemma Wright-Casparius
Manager Tenure	7.37
Fund Incept Date	06/29/2000
Prospectus Exp Ratio	0.07
Phone Number	888-809-8102

Portfolio Ratings	
Mstar Rating	★★★★
3 Year Mstar Rating	★★★★
% Rank Cat 3 Yr	30
5 Year Mstar Rating	★★★★
% Rank Cat 5 Yr	12
10 Year Mstar Rating	★★★★
% Rank Cat 10 Yr	20

Expense Ratio vs. Peer Group



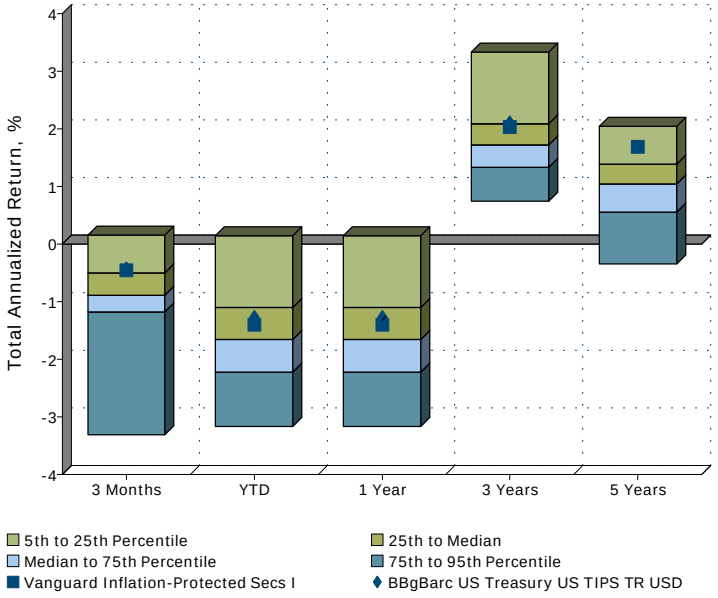
Turnover Ratio vs. Peer Group



Investment Strategy Summary

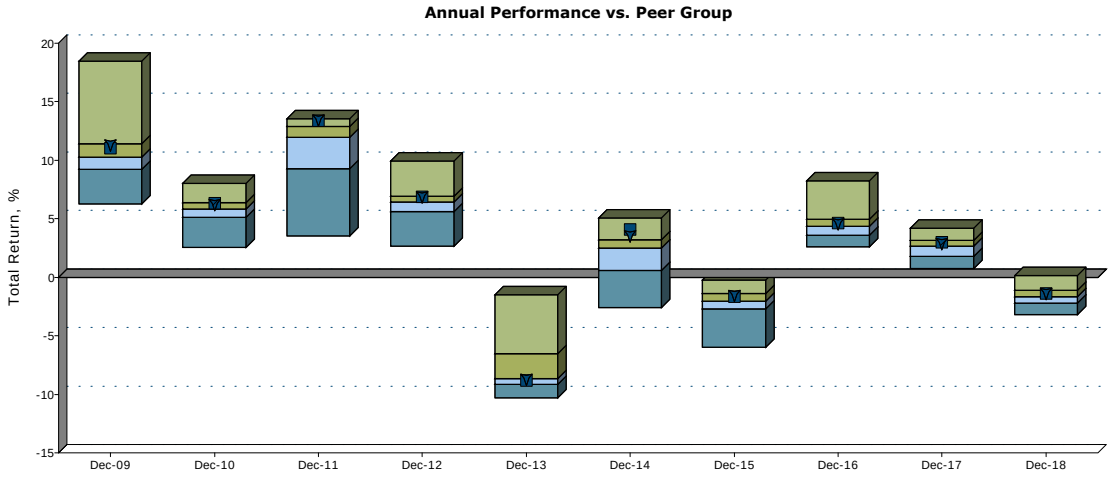
The investment seeks to provide inflation protection and income consistent with investment in inflation-indexed securities. The fund invests at least 80% of its assets in inflation-indexed bonds issued by the U.S. government, its agencies and instrumentalities, and corporations. It may invest in bonds 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 vs. Peer Group

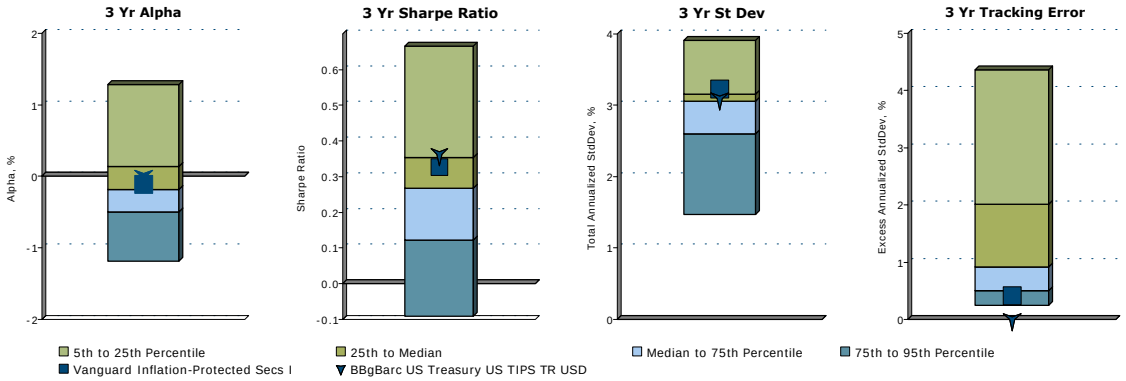


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Vanguard Inflation-Protected Secs I	-0.46	-1.40	-1.40	2.04	1.68
BBgBarc US Treasury US TIPS TR USD	-0.42	-1.26	-1.26	2.11	1.69
Universe(5%)	0.15	0.15	0.15	3.34	2.04
Universe(25%)	-0.49	-1.10	-1.10	2.09	1.39
Universe(Median)	-0.89	-1.65	-1.65	1.72	1.05
Universe(75%)	-1.18	-2.23	-2.23	1.33	0.56
Universe(95%)	-3.32	-3.17	-3.17	0.74	-0.34

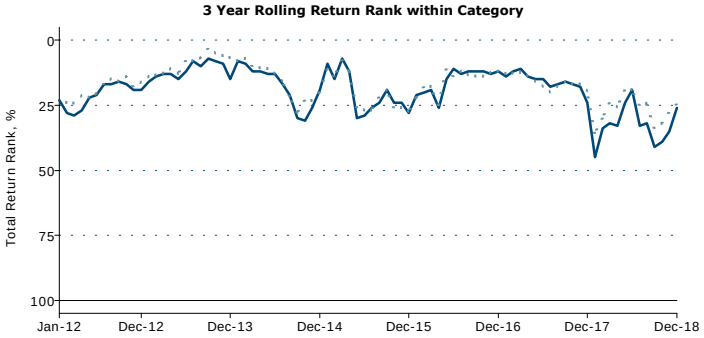
Vanguard Inflation-Protected Secs I

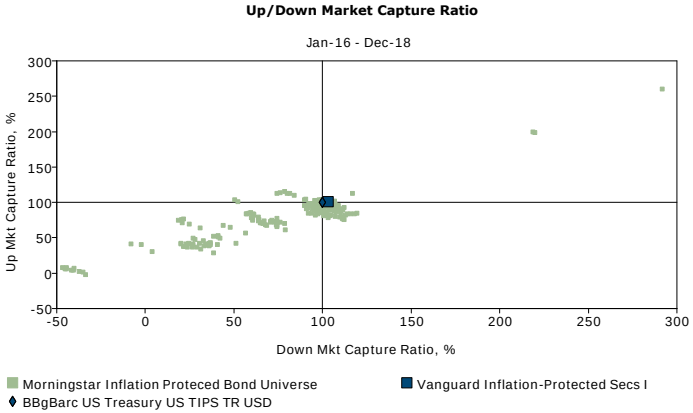


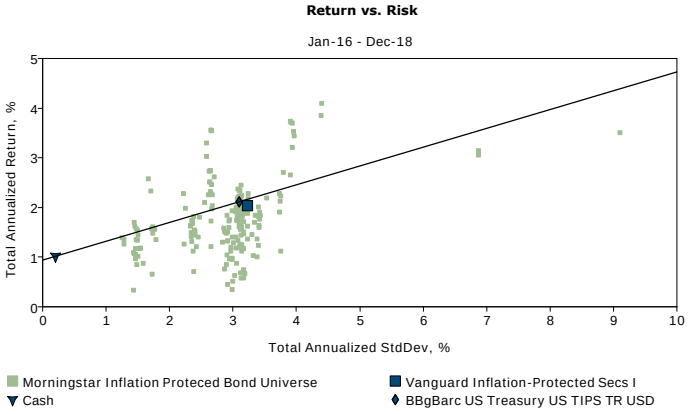
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vanguard Inflation-Protected Secs I	11.03	6.33	13.39	6.87	-8.83	4.07	-1.67	4.63	2.97	-1.40
BBgBarc US Treasury US TIPS TR USD	11.41	6.31	13.56	6.98	-8.61	3.64	-1.44	4.68	3.01	-1.26



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Vanguard Inflation-Protected Secs I	-0.11	1.03	98.51	0.33	3.23	0.41	1.62
BBgBarc US Treasury US TIPS TR USD	0.00	1.00	100.00	0.36	3.10	0.00	1.85
Universe(5%)	1.28	1.05	99.37	0.67	3.91	4.36	4.26
Universe(25%)	0.14	1.00	97.51	0.35	3.16	2.01	2.20
Universe(Median)	-0.18	0.94	92.14	0.27	3.06	0.92	1.55
Universe(75%)	-0.50	0.73	74.61	0.12	2.60	0.51	1.14
Universe(95%)	-1.18	0.29	24.57	-0.09	1.47	0.25	0.52







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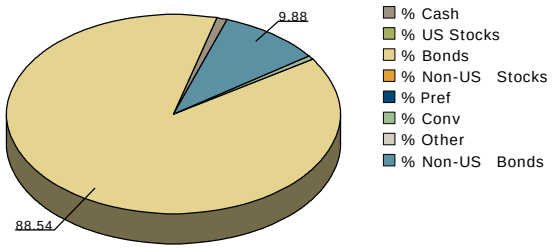
Vanguard Interm-Term Bond Index Adm



Portfolio Region	
% United States	NA
% Canada	NA
% Latin America	NA
% United Kingdom	NA
% Eurozone	NA
% Europe - ex Euro	NA
% Europe - Emerging	NA
% Africa	NA
% Middle East	NA
% Japan	NA
% Australasia	NA
% Asia - Developed	NA
% Asia - Emerging	NA

Portfolio Structure	
% Cash	0.99
% US Stocks	0.00
% Bonds	88.54
% Non-US Stocks	0.00
% Pref	0.00
% Conv	0.59
% Other	0.00
% Non-US Bonds	9.88

Sector Allocation	
% Basic Materials	NA
% Communication Services	NA
% Consumer Cyclical	NA
% Consumer Defensive	NA
% Healthcare	NA
% Industrials	NA
% Real Estate	NA
% Technology	NA
% Energy	NA
% Financial Services	NA
% Utilities	NA

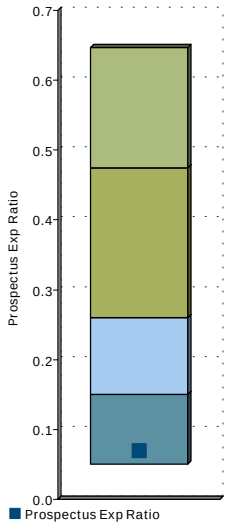
Credit Quality	
Avg Eff Duration	6.17
Effective Maturity	7.30
Avg Credit Quality	A
AAA	54.17
AA	4.27
A	16.18
BBB	25.35
BB	0.00
B	0.00
Below B	0.03
NR/NA	0.00

Top Ten Holdings	
United States Treasury Notes 2.12%	2.56%
United States Treasury Notes 2.5%	2.15%
United States Treasury Notes 2.88%	2.14%
United States Treasury Notes 2.25%	2.08%
United States Treasury Notes 1.62%	1.95%
United States Treasury Notes 2.38%	1.94%
United States Treasury Notes 1.62%	1.93%
United States Treasury Notes 2.88%	1.88%
United States Treasury Notes 2%	1.86%
United States Treasury Notes 2.12%	1.82%

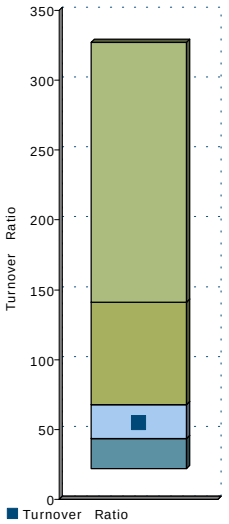
Portfolio Information	
Ticker	VBILX
Morningstar Category	Intermediate-term Bond
Avg Mkt Cap $MM	NA
Cat Med Mkt Cap $MM	NA
Net Assets $MM	31376.00
Turnover Ratio	55.00
% Assets in Top 10 Holdings	20.32
Total Number of Holdings	1860.00
Manager Name	Joshua C. Barrickman
Manager Tenure	10.69
Fund Incept Date	03/01/1994
Prospectus Exp Ratio	0.07
Phone Number	800-662-7447

Portfolio Ratings	
Mstar Rating	★★★
3 Year Mstar Rating	★★★
% Rank Cat 3 Yr	47
5 Year Mstar Rating	★★★★
% Rank Cat 5 Yr	15
10 Year Mstar Rating	★★★
% Rank Cat 10 Yr	47

Expense Ratio vs. Peer Group



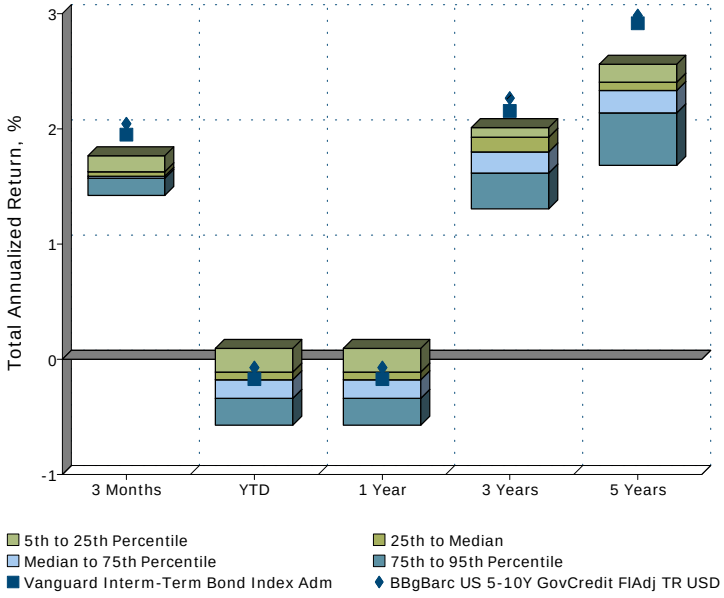
Turnover Ratio vs. Peer Group



Investment Strategy Summary

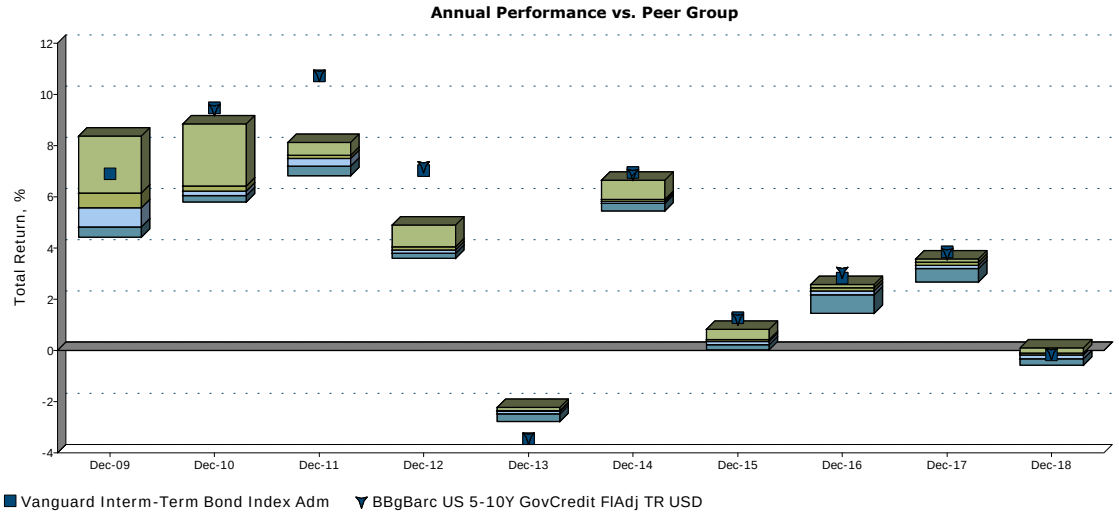
The investment seeks the performance of the Bloomberg Barclays U.S. 5-10 Year Government/Credit Float Adjusted Index. Bloomberg Barclays U.S. 5-10 Year Government/Credit Float Adjusted Index includes all medium and larger issues of U.S. government, investment-grade corporate and investment-grade international 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 vs. Peer Group

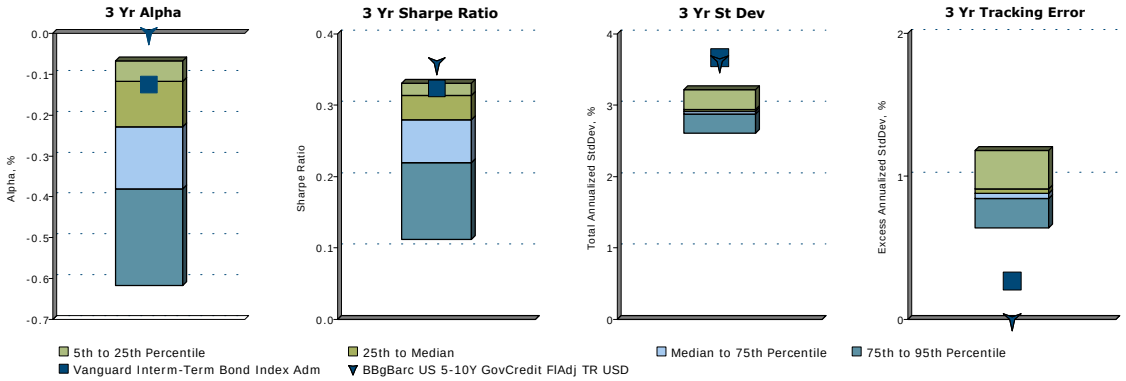


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Vanguard Interm-Term Bond Index Adm	1.95	-0.17	-0.17	2.15	2.92
BBgBarc US 5-10Y GovCredit FlAdj TR USD	2.04	-0.07	-0.07	2.27	2.98
Universe(5%)	1.77	0.09	0.09	2.01	2.56
Universe(25%)	1.63	-0.11	-0.11	1.93	2.40
Universe(Median)	1.59	-0.18	-0.18	1.80	2.33
Universe(75%)	1.57	-0.34	-0.34	1.62	2.14
Universe(95%)	1.42	-0.57	-0.57	1.31	1.69

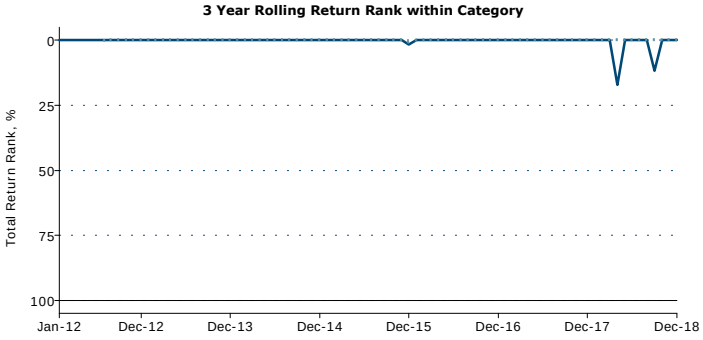
Vanguard Interm-Term Bond Index Adm

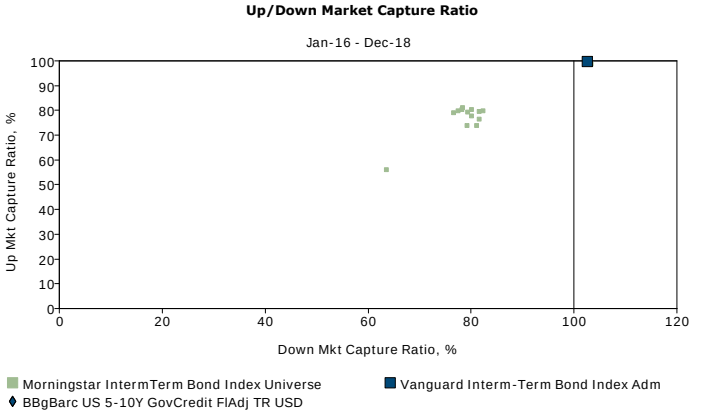


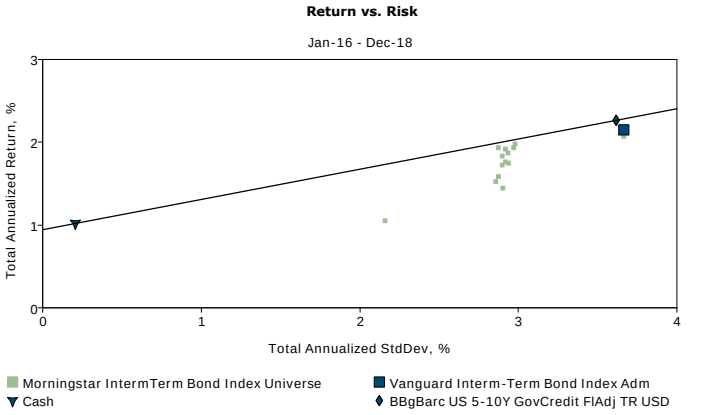
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vanguard Interm-Term Bond Index Adm	6.89	9.49	10.73	7.02	-3.45	6.96	1.27	2.83	3.85	-0.17
BBgBarc US 5-10Y GovCredit FlAdj TR USD	NA	9.44	10.79	7.22	-3.37	6.91	1.28	3.10	3.81	-0.07



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Vanguard Interm-Term Bond Index Adm	-0.12	1.01	99.47	0.32	3.66	0.27	1.45
BBgBarc US 5-10Y GovCredit FlAdj TR USD	0.00	1.00	100.00	0.36	3.62	0.00	1.61
Universe(5%)	-0.07	0.88	98.40	0.33	3.22	1.18	1.78
Universe(25%)	-0.12	0.80	97.76	0.31	2.94	0.91	1.69
Universe(Median)	-0.23	0.79	97.47	0.28	2.91	0.88	1.49
Universe(75%)	-0.38	0.79	97.26	0.22	2.88	0.85	1.32
Universe(95%)	-0.62	0.71	96.55	0.11	2.61	0.64	1.11







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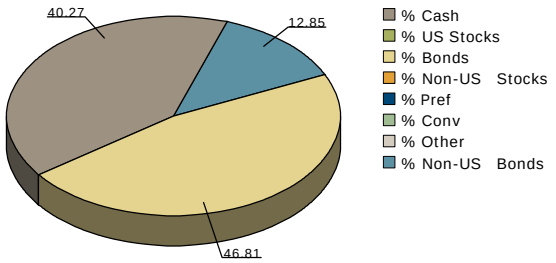
Columbia Strategic Income Inst3



Portfolio Region	
% United States	100.00
% Canada	0.00
% Latin America	0.00
% United Kingdom	0.00
% Eurozone	0.00
% Europe - ex Euro	0.00
% Europe - Emerging	0.00
% Africa	0.00
% Middle East	0.00
% Japan	0.00
% Australasia	0.00
% Asia - Developed	0.00
% Asia - Emerging	0.00

Portfolio Structure	
% Cash	40.27
% US Stocks	0.02
% Bonds	46.81
% Non-US Stocks	0.00
% Pref	0.00
% Conv	0.05
% Other	0.01
% Non-US Bonds	12.85

Sector Allocation	
% Basic Materials	34.33
% Communication Services	0.34
% Consumer Cyclical	24.18
% Consumer Defensive	0.00
% Healthcare	0.00
% Industrials	0.24
% Real Estate	0.00
% Technology	0.00
% Energy	0.00
% Financial Services	0.00
% Utilities	40.91

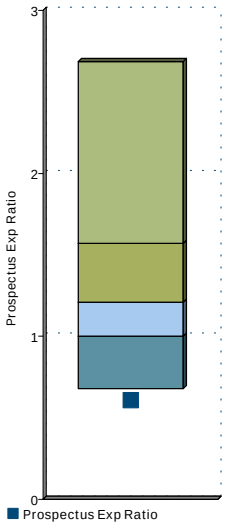
Credit Quality	
Avg Eff Duration	5.14
Effective Maturity	9.20
Avg Credit Quality	BB
AAA	9.40
AA	8.33
A	6.32
BBB	22.14
BB	14.25
B	20.02
Below B	2.66
NR/NA	16.87

Top Ten Holdings	
Euro BOBL Future Dec18	24.62%
US 10 Year Note (CBT) Dec18	16.42%
2 Year US Treasury Note Future Dec18	8.61%
10y Rtp 3.100000 04-Dec-2018	8.54%
3y Rtr 2.750000 20-Feb-2019	7.47%
3y Rtr 2.750000 22-Feb-2019	7.47%
Swp: Usd 2.740000 16-Feb-2023	7.30%
5y Rtp 3.100000 10-Dec-2018	6.40%
Ice: (Cdx.Na.Hy.31.V1)	4.49%
US Ultra Bond (CBT) Dec18	3.39%

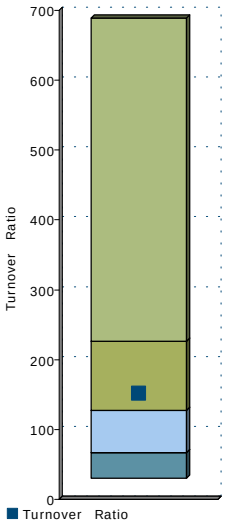
Portfolio Information	
Ticker	CPHUX
Morningstar Category	Nontraditional Bond
Avg Mkt Cap $MM	10963.36
Cat Med Mkt Cap $MM	5085.27
Net Assets $MM	4175.00
Turnover Ratio	152.00
% Assets in Top 10 Holdings	94.71
Total Number of Holdings	1109.00
Manager Name	Colin J. Lundgren
Manager Tenure	8.61
Fund Incept Date	04/21/1977
Prospectus Exp Ratio	0.61
Phone Number	800-345-6611

Portfolio Ratings	
Mstar Rating	★★★★★
3 Year Mstar Rating	★★★★
% Rank Cat 3 Yr	20
5 Year Mstar Rating	★★★★★
% Rank Cat 5 Yr	10
10 Year Mstar Rating	★★★★
% Rank Cat 10 Yr	16

Expense Ratio vs. Peer Group



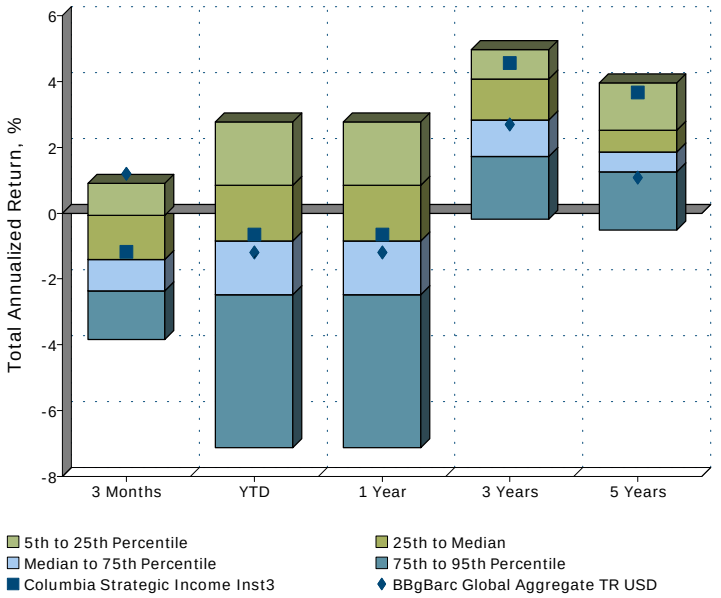
Turnover Ratio vs. Peer Group



Investment Strategy Summary

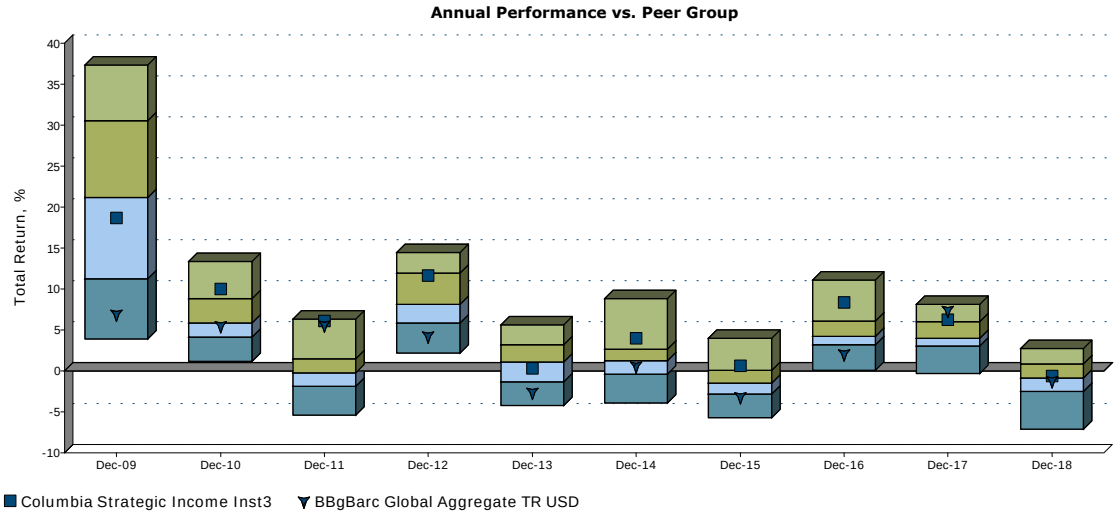
The investment seeks total return, consisting of current income and capital appreciation. Under normal circumstances, the fund has substantial exposure to fixed-income/debt markets. It may invest in U.S. government bonds and notes, U.S. and international bonds and notes, investment grade corporate (or 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 vs. Peer Group

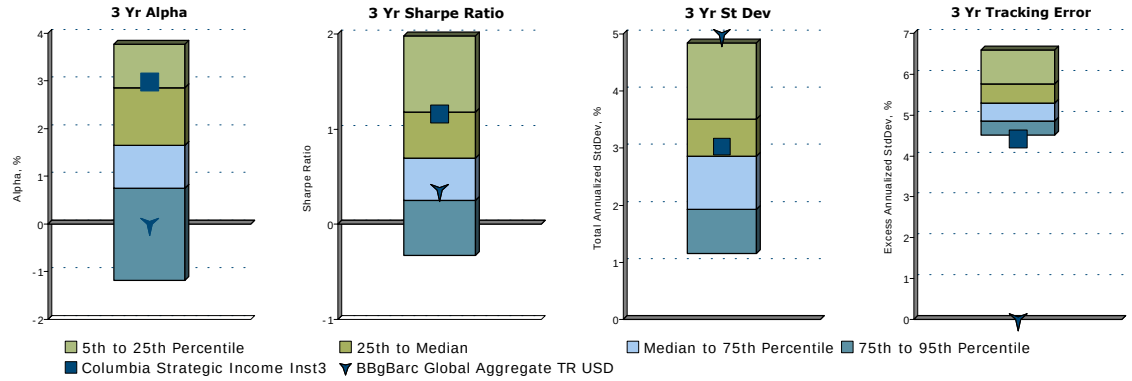


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Columbia Strategic Income Inst3	-1.18	-0.64	-0.64	4.57	3.66
BBgBarc Global Aggregate TR USD	1.20	-1.20	-1.20	2.70	1.08
Universe(5%)	0.90	2.77	2.77	4.96	3.96
Universe(25%)	-0.08	0.84	0.84	4.08	2.51
Universe(Median)	-1.41	-0.84	-0.84	2.83	1.86
Universe(75%)	-2.37	-2.49	-2.49	1.73	1.25
Universe(95%)	-3.85	-7.13	-7.13	-0.18	-0.51

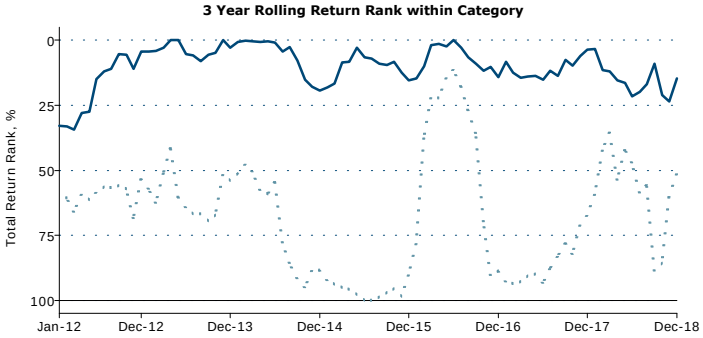
Columbia Strategic Income Inst3

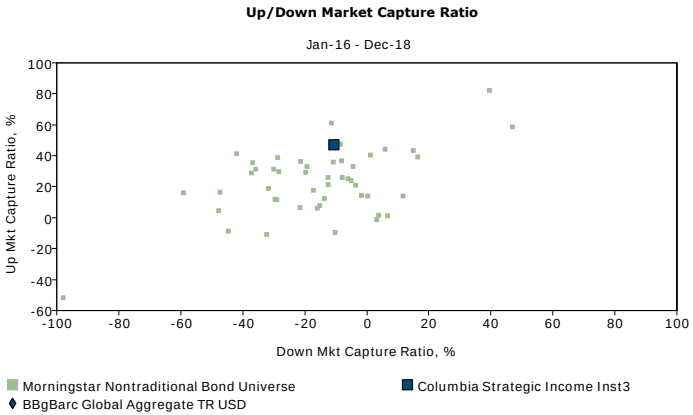


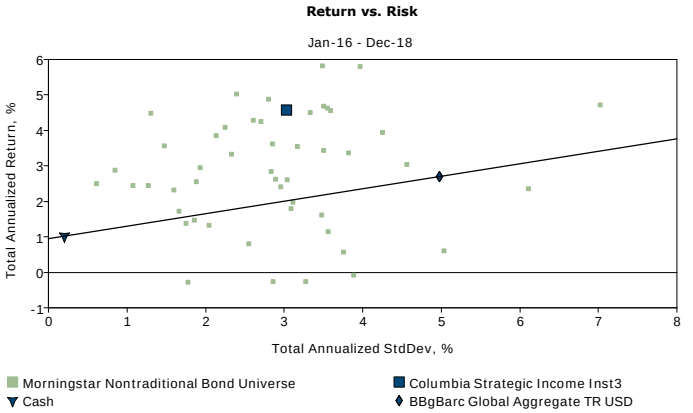
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Columbia Strategic Income Inst3	18.67	9.96	6.11	11.60	0.32	3.99	0.66	8.34	6.22	-0.64
BBgBarc Global Aggregate TR USD	6.93	5.54	5.64	4.32	-2.60	0.59	-3.15	2.09	7.39	-1.20



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Columbia Strategic Income Inst3	2.97	0.30	23.48	1.16	3.03	4.42	10.39
BBgBarc Global Aggregate TR USD	0.00	1.00	100.00	0.36	4.97	0.00	1.29
Universe(5%)	3.78	0.35	32.37	1.98	4.85	6.59	351.90
Universe(25%)	2.86	0.21	14.86	1.18	3.50	5.77	11.70
Universe(Median)	1.65	0.09	5.04	0.69	2.86	5.29	4.09
Universe(75%)	0.75	-0.01	1.13	0.25	1.93	4.85	1.69
Universe(95%)	-1.18	-0.08	0.09	-0.33	1.15	4.51	-0.08







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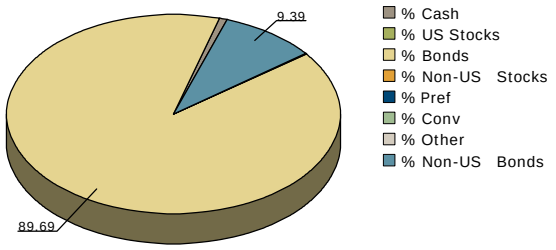
Vanguard Long-Term Bond Index Investor



Portfolio Region	
% United States	NA
% Canada	NA
% Latin America	NA
% United Kingdom	NA
% Eurozone	NA
% Europe - ex Euro	NA
% Europe - Emerging	NA
% Africa	NA
% Middle East	NA
% Japan	NA
% Australasia	NA
% Asia - Developed	NA
% Asia - Emerging	NA

Portfolio Structure	
% Cash	0.86
% US Stocks	0.00
% Bonds	89.69
% Non-US Stocks	0.00
% Pref	0.00
% Conv	0.06
% Other	0.00
% Non-US Bonds	9.39

Sector Allocation	
% Basic Materials	NA
% Communication Services	NA
% Consumer Cyclical	NA
% Consumer Defensive	NA
% Healthcare	NA
% Industrials	NA
% Real Estate	NA
% Technology	NA
% Energy	NA
% Financial Services	NA
% Utilities	NA

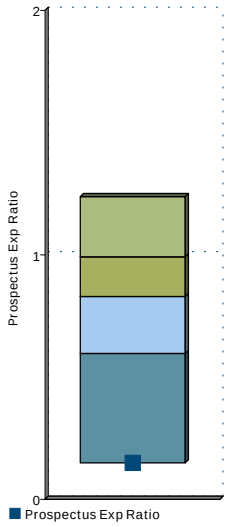
Credit Quality	
Avg Eff Duration	14.65
Effective Maturity	24.40
Avg Credit Quality	A
AAA	41.39
AA	7.70
A	22.31
BBB	28.60
BB	0.00
B	0.00
Below B	0.00
NR/NA	0.00

Top Ten Holdings	
United States Treasury Bonds 3.75%	1.44%
United States Treasury Bonds 3.62%	1.43%
United States Treasury Bonds 3.38%	1.35%
United States Treasury Bonds 3%	1.32%
United States Treasury Bonds 3%	1.31%
United States Treasury Bonds 3%	1.31%
United States Treasury Bonds 2.88%	1.29%
United States Treasury Bonds 3.12%	1.28%
United States Treasury Bonds 3.12%	1.25%
United States Treasury Bonds 2.88%	1.23%

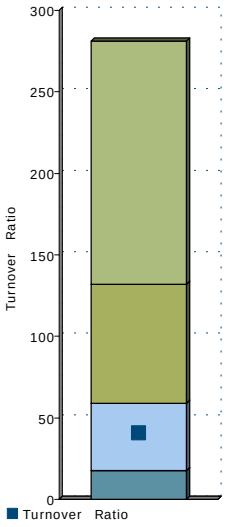
Portfolio Information	
Ticker	VBLTX
Morningstar Category	Long-term Bond
Avg Mkt Cap $MM	NA
Cat Med Mkt Cap $MM	NA
Net Assets $MM	11194.00
Turnover Ratio	41.00
% Assets in Top 10 Holdings	13.20
Total Number of Holdings	2158.00
Manager Name	Joshua C. Barrickman
Manager Tenure	5.86
Fund Incept Date	03/01/1994
Prospectus Exp Ratio	0.15
Phone Number	800-662-7447

Portfolio Ratings	
Mstar Rating	★★
3 Year Mstar Rating	★★
% Rank Cat 3 Yr	57
5 Year Mstar Rating	★★★
% Rank Cat 5 Yr	48
10 Year Mstar Rating	★★
% Rank Cat 10 Yr	87

Expense Ratio vs. Peer Group



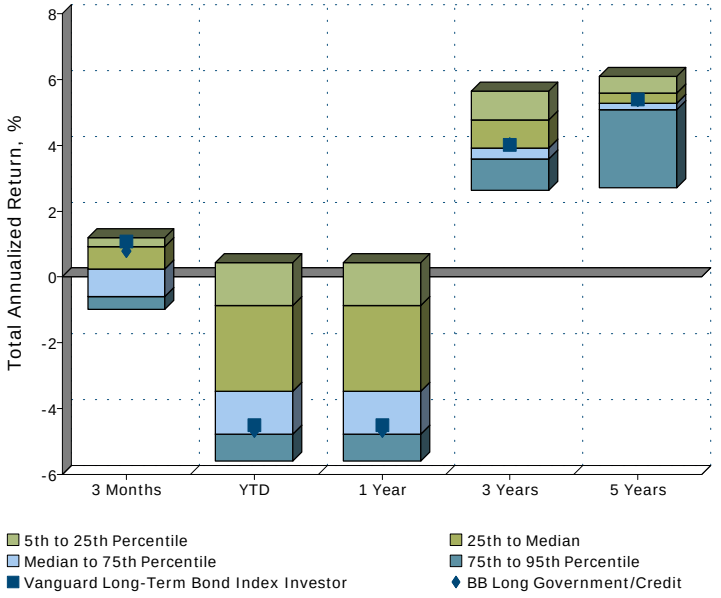
Turnover Ratio vs. Peer Group



Investment Strategy Summary

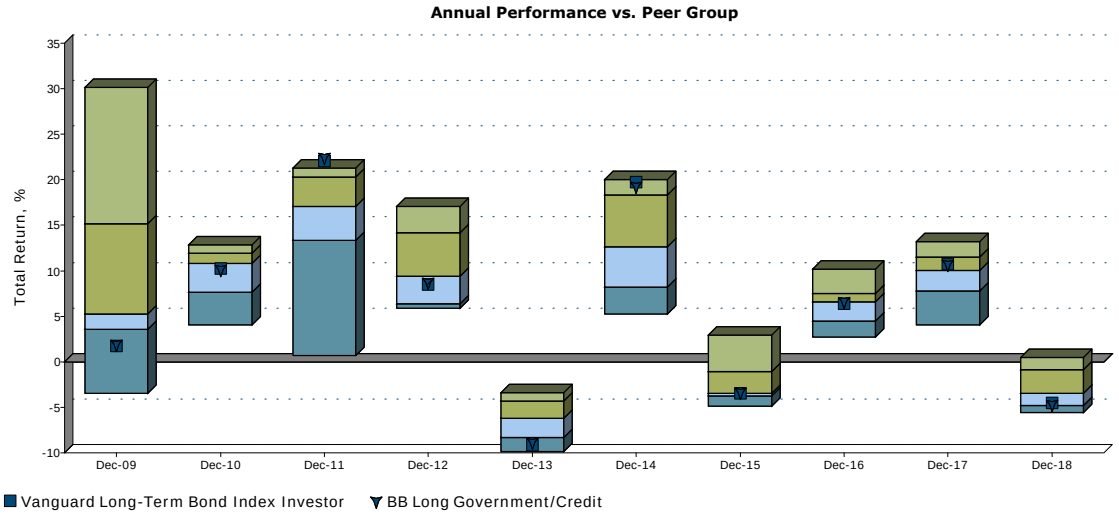
The investment seeks to track the performance of the Bloomberg Barclays U.S. Long Government/Credit Float Adjusted Index. Bloomberg Barclays U.S. Long Government/Credit Float Adjusted Index includes all medium and larger issues of U.S. government, investment-grade corporate, and investment-grade international 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 vs. Peer Group

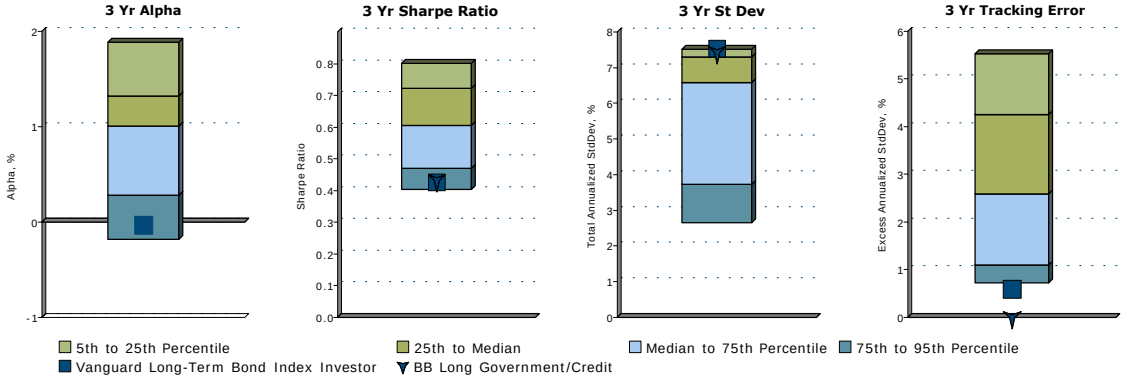


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Vanguard Long-Term Bond Index Investor	1.09	-4.51	-4.51	4.02	5.40
BB Long Government/Credit	0.78	-4.68	-4.68	4.03	5.37
Universe(5%)	1.19	0.44	0.44	5.64	6.09
Universe(25%)	0.93	-0.87	-0.87	4.78	5.58
Universe(Median)	0.24	-3.47	-3.47	3.92	5.27
Universe(75%)	-0.60	-4.78	-4.78	3.58	5.07
Universe(95%)	-0.98	-5.60	-5.60	2.63	2.72

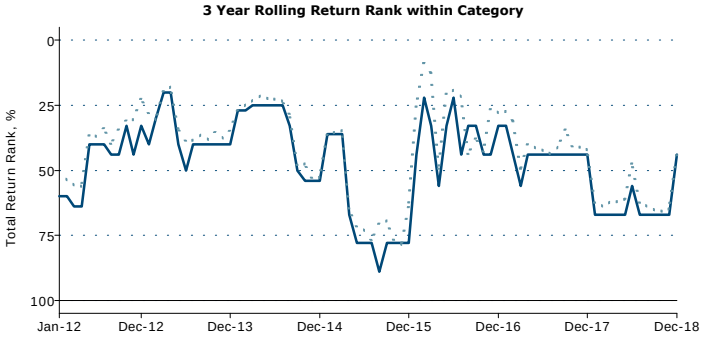
Vanguard Long-Term Bond Index Investor

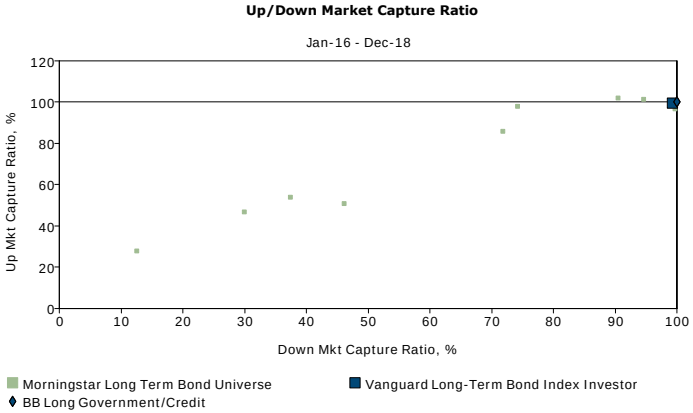


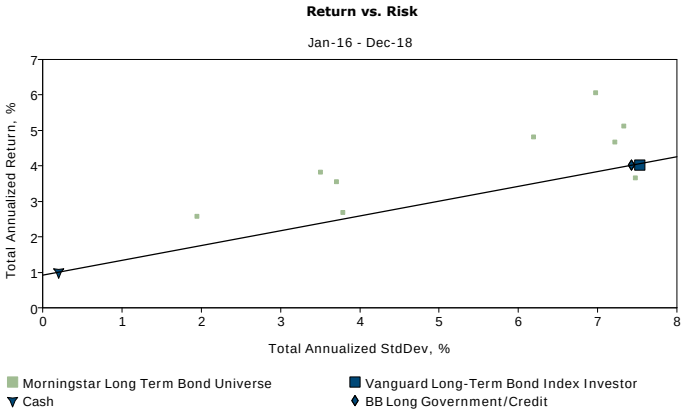
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vanguard Long-Term Bond Index Investor	1.76	10.27	22.05	8.49	-9.13	19.72	-3.47	6.41	10.76	-4.51
BB Long Government/Credit	1.92	10.16	22.49	8.78	-8.83	19.31	-3.30	6.67	10.71	-4.68



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Vanguard Long-Term Bond Index Investor	-0.03	1.01	99.40	0.43	7.53	0.59	1.27
BB Long Government/Credit	0.00	1.00	100.00	0.43	7.43	0.00	1.30
Universe(5%)	1.89	1.00	99.04	0.80	7.51	5.53	6.07
Universe(25%)	1.32	0.97	97.74	0.72	7.30	4.26	3.25
Universe(Median)	1.00	0.84	91.19	0.60	6.58	2.59	2.15
Universe(75%)	0.28	0.45	86.36	0.47	3.72	1.11	1.77
Universe(95%)	-0.18	0.30	63.62	0.40	2.65	0.73	1.19



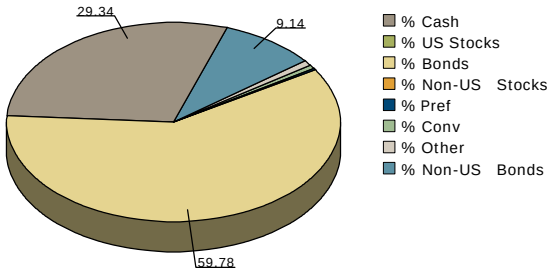




Milliman | Quarterly Investment Monitor

Data as of 12/31/2018

PIMCO Long Duration Total Return Instl



Portfolio Region	
% United States	100.00
% Canada	0.00
% Latin America	0.00
% United Kingdom	0.00
% Eurozone	0.00
% Europe - ex Euro	0.00
% Europe - Emerging	0.00
% Africa	0.00
% Middle East	0.00
% Japan	0.00
% Australasia	0.00
% Asia - Developed	0.00
% Asia - Emerging	0.00

Portfolio Structure	
% Cash	29.34
% US Stocks	0.00
% Bonds	59.78
% Non-US Stocks	0.00
% Pref	0.23
% Conv	0.54
% Other	0.97
% Non-US Bonds	9.14

Sector Allocation	
% Basic Materials	0.00
% Communication Services	0.00
% Consumer Cyclical	0.00
% Consumer Defensive	0.00
% Healthcare	0.00
% Industrials	0.00
% Real Estate	0.00
% Technology	0.00
% Energy	0.00
% Financial Services	100.00
% Utilities	0.00

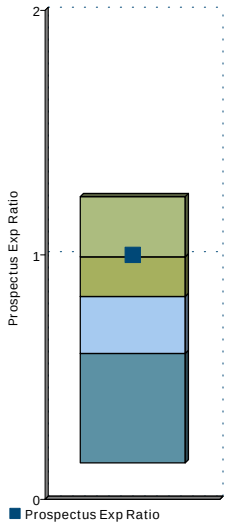
Credit Quality	
Avg Eff Duration	13.81
Effective Maturity	24.51
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
Irs Usd 2.64300 03/16/21-1y (Grn) Cme	51.34%
Irs Usd 2.60000 03/16/20-1y (Red) Cme	51.28%
US Ultra Bond (CBT) Dec18	39.07%
90 Day Eurodollar Future Sept19	20.43%
Irs Usd 2.16000 04/27/18-1y (Wht) Cme	17.82%
2 Year US Treasury Note Future Dec18	17.28%
US 10 Year Ultra Future Dec18	15.71%
US 10 Year Note (CBT) Dec18	11.47%
Irs Gbp 1.00000 09/19/18-1y (Wht) Lch	7.70%
Irs Gbp 1.00000 09/18/19-1y (Red) Lch	7.68%

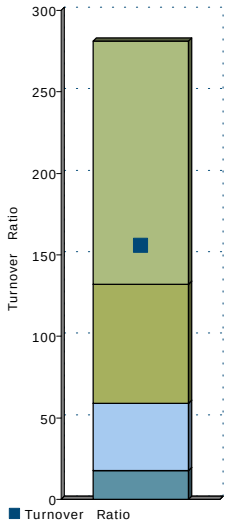
Portfolio Information	
Ticker	PLRIX
Morningstar Category	Long-term Bond
Avg Mkt Cap $MM	47300.88
Cat Med Mkt Cap $MM	47300.88
Net Assets $MM	3262.00
Turnover Ratio	156.00
% Assets in Top 10 Holdings	239.78
Total Number of Holdings	1131.00
Manager Name	Stephen A. Rodosky
Manager Tenure	11.43
Fund Incept Date	08/31/2006
Prospectus Exp Ratio	1.00
Phone Number	888-877-4626

Portfolio Ratings	
Mstar Rating	★★★★
3 Year Mstar Rating	★★★★★
% Rank Cat 3 Yr	9
5 Year Mstar Rating	★★★★
% Rank Cat 5 Yr	18
10 Year Mstar Rating	★★★
% Rank Cat 10 Yr	40

Expense Ratio vs. Peer Group



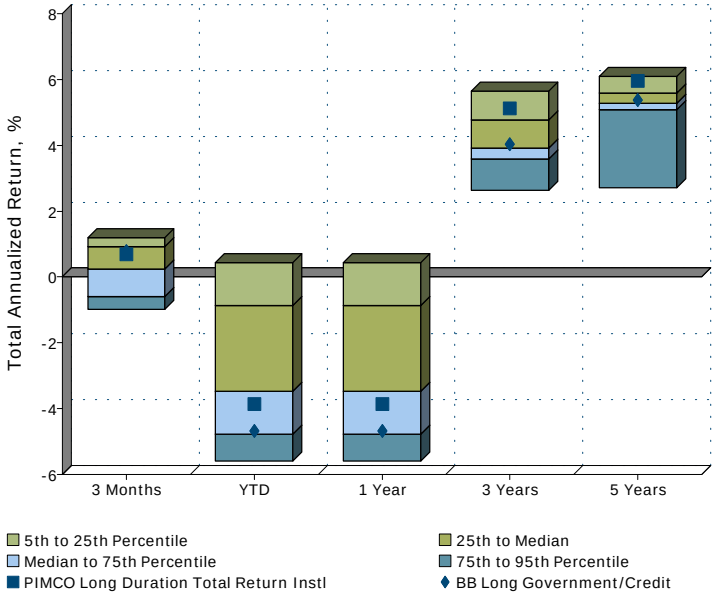
Turnover Ratio vs. Peer Group



Investment Strategy Summary

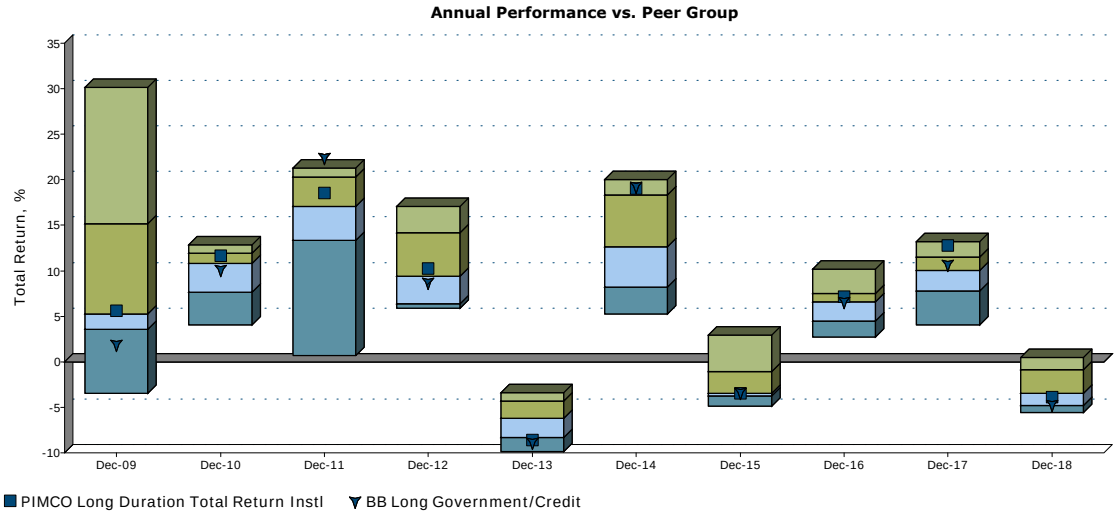
The investment seeks maximum total return, consistent with prudent investment management. The fund invests at least 65% of its total assets in a diversified portfolio of Fixed Income Instruments of varying maturities, which may be represented by forwards or derivatives such as options, futures contracts 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 vs. Peer Group

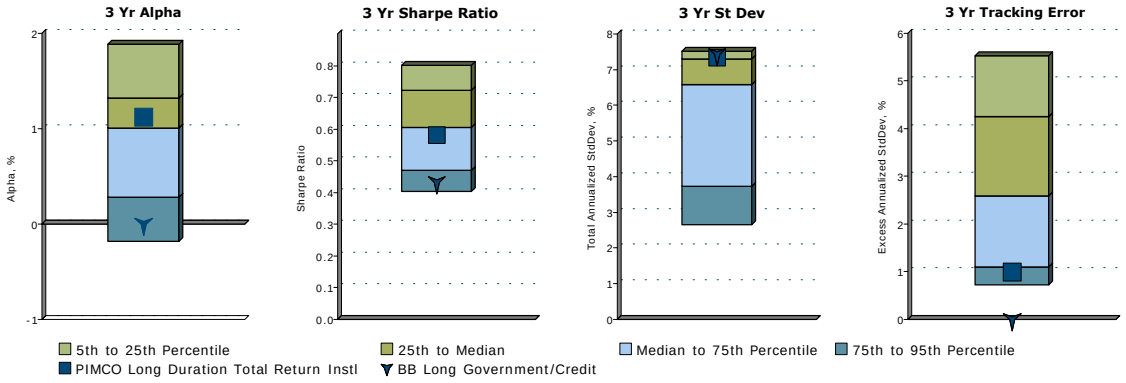


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
PIMCO Long Duration Total Return Instl	0.69	-3.86	-3.86	5.13	5.95
BB Long Government/Credit	0.78	-4.68	-4.68	4.03	5.37
Universe(5%)	1.19	0.44	0.44	5.64	6.09
Universe(25%)	0.93	-0.87	-0.87	4.78	5.58
Universe(Median)	0.24	-3.47	-3.47	3.92	5.27
Universe(75%)	-0.60	-4.78	-4.78	3.58	5.07
Universe(95%)	-0.98	-5.60	-5.60	2.63	2.72

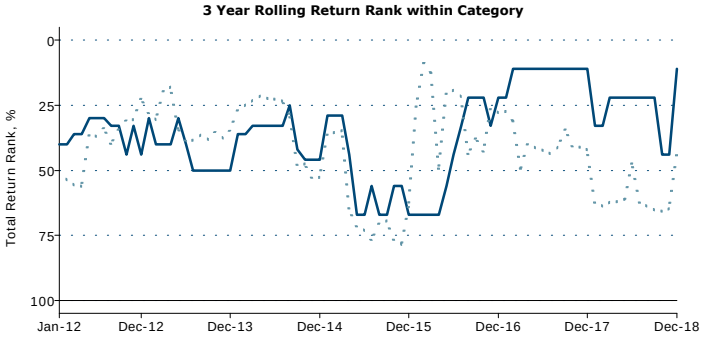
PIMCO Long Duration Total Return Instl

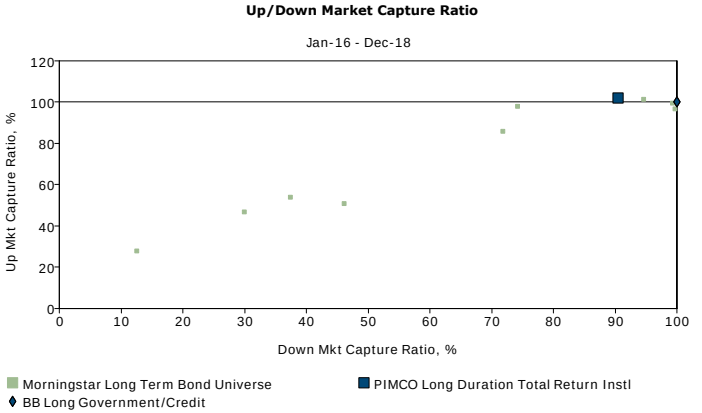


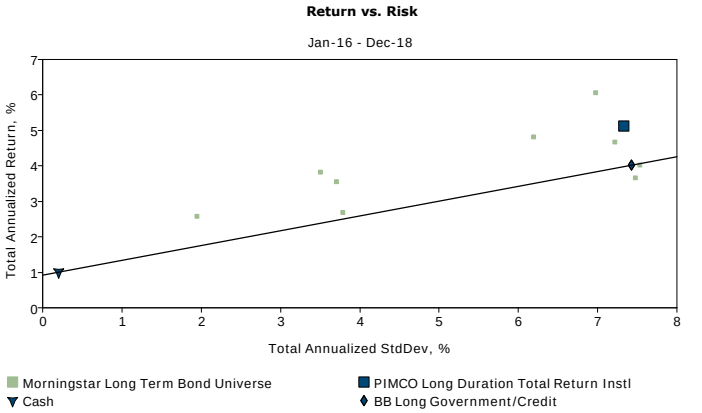
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
PIMCO Long Duration Total Return Instl	5.62	11.64	18.57	10.28	-8.56	19.02	-3.44	7.18	12.75	-3.86
BB Long Government/Credit	1.92	10.16	22.49	8.78	-8.83	19.31	-3.30	6.67	10.71	-4.68



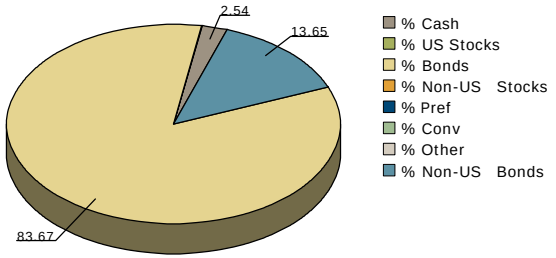
MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
PIMCO Long Duration Total Return Instl	1.12	0.98	98.21	0.58	7.33	1.00	1.94
BB Long Government/Credit	0.00	1.00	100.00	0.43	7.43	0.00	1.30
Universe(5%)	1.89	1.00	99.04	0.80	7.51	5.53	6.07
Universe(25%)	1.32	0.97	97.74	0.72	7.30	4.26	3.25
Universe(Median)	1.00	0.84	91.19	0.60	6.58	2.59	2.15
Universe(75%)	0.28	0.45	86.36	0.47	3.72	1.11	1.77
Universe(95%)	-0.18	0.30	63.62	0.40	2.65	0.73	1.19







PGIM High Yield R6



Portfolio Region	
% United States	93.96
% Canada	6.04
% Latin America	0.00
% United Kingdom	0.00
% Eurozone	0.00
% Europe - ex Euro	0.00
% Europe - Emerging	0.00
% Africa	0.00
% Middle East	0.00
% Japan	0.00
% Australasia	0.00
% Asia - Developed	0.00
% Asia - Emerging	0.00

Portfolio Structure	
% Cash	2.54
% US Stocks	0.10
% Bonds	83.67
% Non-US Stocks	0.01
% Pref	0.03
% Conv	0.00
% Other	0.00
% Non-US Bonds	13.65

Sector Allocation	
% Basic Materials	0.00
% Communication Services	0.00
% Consumer Cyclical	1.53
% Consumer Defensive	0.00
% Healthcare	0.00
% Industrials	0.00
% Real Estate	0.00
% Technology	0.00
% Energy	6.25
% Financial Services	0.00
% Utilities	92.21

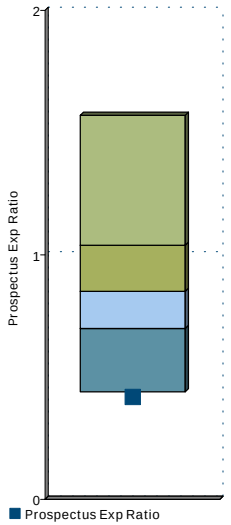
Credit Quality	
Avg Eff Duration	3.88
Effective Maturity	NA
Avg Credit Quality	B
AAA	10.26
AA	0.00
A	0.00
BBB	4.45
BB	32.71
B	39.86
Below B	11.70
NR/NA	1.03

Top Ten Holdings	
2 Year US Treasury Note Future Mar19	3.52%
US 10 Year Note (CBT) Mar19	3.34%
First Data Corporation 7%	1.68%
US 5 Year Note (CBT) Mar19	1.63%
DISH DBS Corporation 7.75%	1.35%
Wind Tre S.p.A. 5%	1.11%
Calpine Corporation 5.75%	1.03%
Bombardier Inc. 7.5%	0.99%
Wand Merger Corporation 9.12%	0.84%
Clear Channel Worldwide Holdings Inc. 7.62%	0.79%

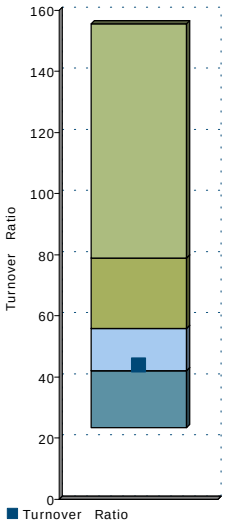
Portfolio Information	
Ticker	PHYQX
Morningstar Category	High Yield Bond
Avg Mkt Cap $MM	9718.33
Cat Med Mkt Cap $MM	3475.71
Net Assets $MM	7300.00
Turnover Ratio	44.00
% Assets in Top 10 Holdings	16.29
Total Number of Holdings	509.00
Manager Name	Robert Spano
Manager Tenure	11.22
Fund Incept Date	03/29/1979
Prospectus Exp Ratio	0.42
Phone Number	800-225-1852

Portfolio Ratings	
Mstar Rating	★★★★★
3 Year Mstar Rating	★★★★★
% Rank Cat 3 Yr	9
5 Year Mstar Rating	★★★★★
% Rank Cat 5 Yr	4
10 Year Mstar Rating	★★★★
% Rank Cat 10 Yr	22

Expense Ratio vs. Peer Group



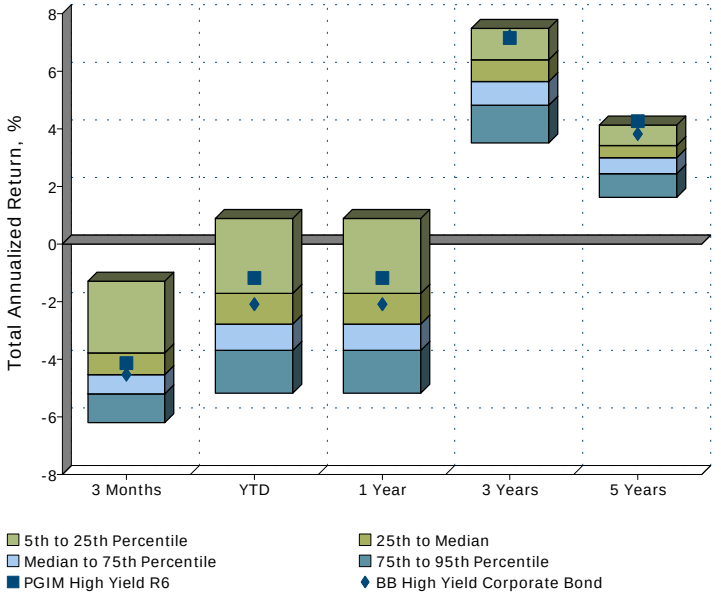
Turnover Ratio vs. Peer Group



Investment Strategy Summary

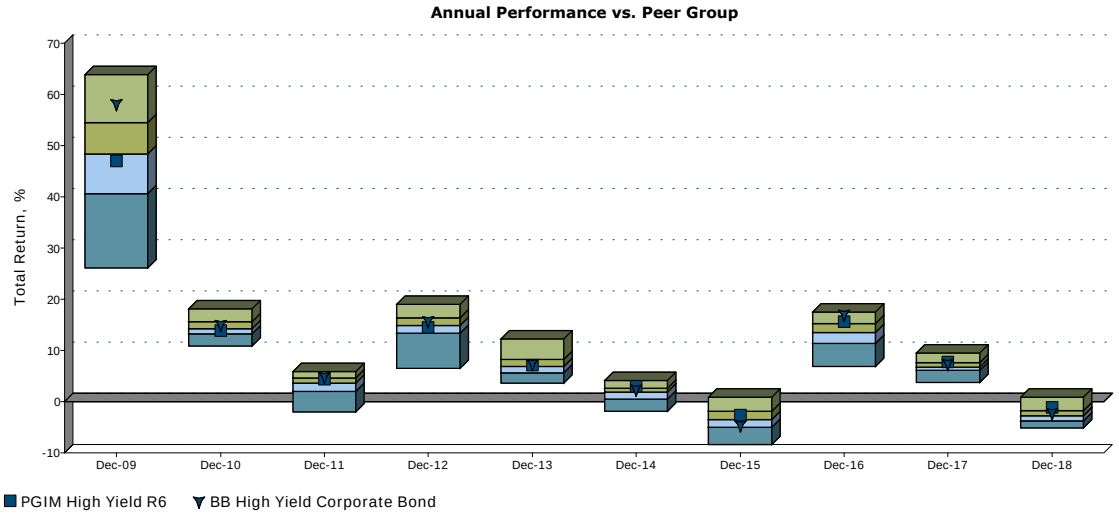
The investment seeks to maximize current income; and capital appreciation is a secondary objective. The fund normally invests at least 80% of its investable assets in a diversified portfolio of high yield fixed-income instruments rated Ba or lower by Moody's Investors Service (Moody's) or BB or lower 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 vs. Peer Group

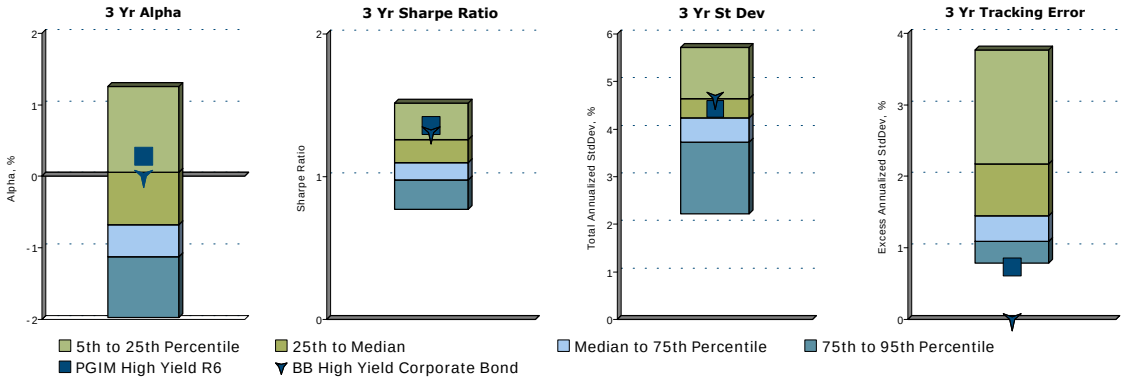


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
PGIM High Yield R6	-4.14	-1.18	-1.18	7.16	4.28
BB High Yield Corporate Bond	-4.53	-2.08	-2.08	7.23	3.83
Universe(5%)	-1.29	0.89	0.89	7.48	4.14
Universe(25%)	-3.78	-1.72	-1.72	6.41	3.41
Universe(Median)	-4.54	-2.77	-2.77	5.63	2.99
Universe(75%)	-5.21	-3.70	-3.70	4.82	2.44
Universe(95%)	-6.20	-5.18	-5.18	3.52	1.62

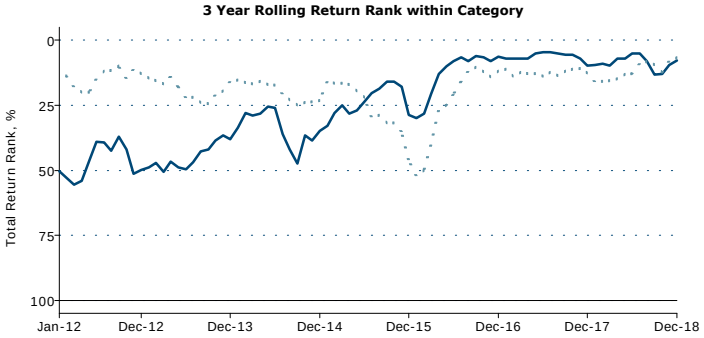
PGIM High Yield R6

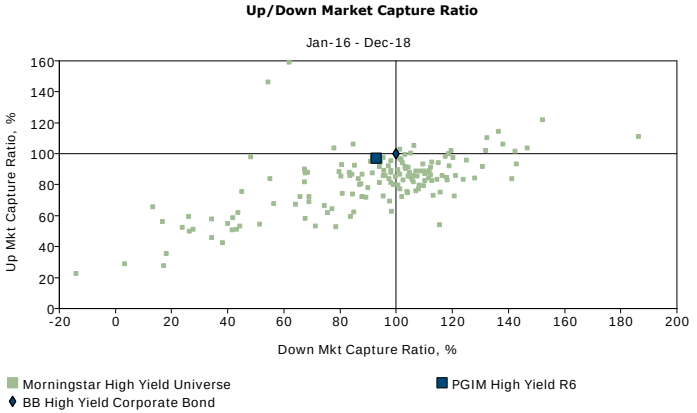


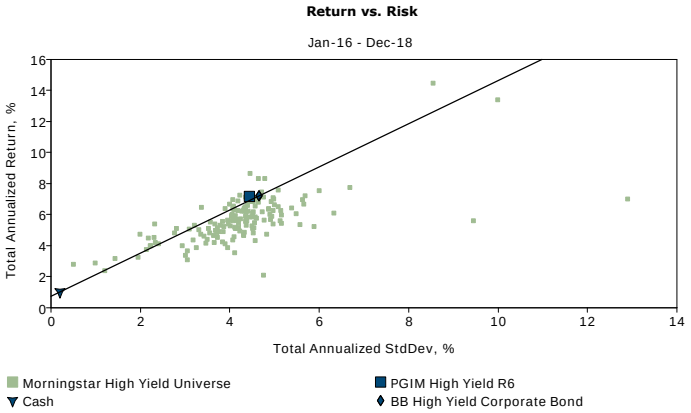
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
PGIM High Yield R6	46.99	13.84	4.43	14.45	7.15	2.95	-2.68	15.61	7.70	-1.18
BB High Yield Corporate Bond	58.21	15.12	4.98	15.81	7.44	2.45	-4.47	17.13	7.50	-2.08



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
PGIM High Yield R6	0.28	0.94	97.72	1.36	4.43	0.74	12.69
BB High Yield Corporate Bond	0.00	1.00	100.00	1.31	4.66	0.00	11.30
Universe(5%)	1.25	1.17	97.52	1.52	5.72	3.77	23.29
Universe(25%)	0.06	0.95	95.38	1.26	4.64	2.17	10.79
Universe(Median)	-0.68	0.88	92.55	1.10	4.23	1.45	7.70
Universe(75%)	-1.12	0.76	86.69	0.98	3.73	1.09	5.72
Universe(95%)	-1.97	0.41	48.26	0.77	2.22	0.79	3.51







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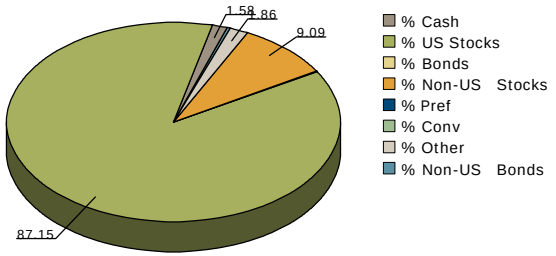
Data as of 12/31/2018

Vanguard Equity-Income Adm



Portfolio Region	
% United States	90.55
% Canada	4.22
% Latin America	0.04
% United Kingdom	1.17
% Eurozone	1.22
% Europe - ex Euro	2.58
% Europe - Emerging	0.00
% Africa	0.00
% Middle East	0.00
% Japan	0.00
% Australasia	0.00
% Asia - Developed	0.22
% Asia - Emerging	0.00

Portfolio Structure	
% Cash	1.58
% US Stocks	87.15
% Bonds	0.05
% Non-US Stocks	9.09
% Pref	0.00
% Conv	0.00
% Other	1.86
% Non-US Bonds	0.27

Sector Allocation	
% Basic Materials	3.66
% Communication Services	5.83
% Consumer Cyclical	4.33
% Consumer Defensive	12.92
% Healthcare	15.56
% Industrials	11.22
% Real Estate	0.92
% Technology	9.97
% Energy	11.59
% Financial Services	16.34
% Utilities	7.67

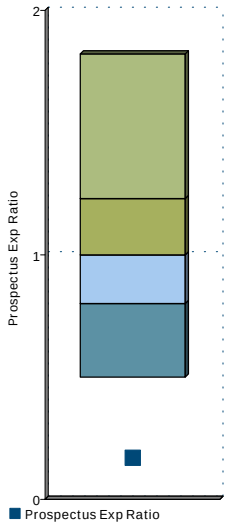
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
JPMorgan Chase & Co	4.18%
Johnson & Johnson	3.26%
Verizon Communications Inc	2.75%
Chevron Corp	2.52%
Cisco Systems Inc	2.50%
Intel Corp	2.27%
Pfizer Inc	2.26%
Exxon Mobil Corp	2.07%
Eli Lilly and Co	2.00%
Merck & Co Inc	1.94%

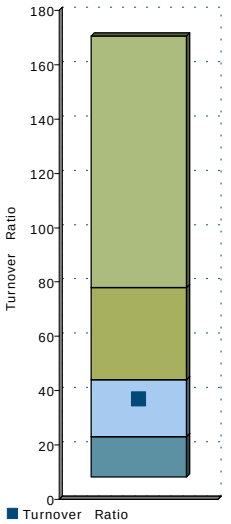
Portfolio Information	
Ticker	VEIRX
Morningstar Category	Large Value
Avg Mkt Cap $MM	90343.41
Cat Med Mkt Cap $MM	101701.36
Net Assets $MM	30085.00
Turnover Ratio	37.00
% Assets in Top 10 Holdings	25.74
Total Number of Holdings	203.00
Manager Name	James P. Stetler
Manager Tenure	15.01
Fund Incept Date	03/21/1988
Prospectus Exp Ratio	0.17
Phone Number	800-662-7447

Portfolio Ratings	
Mstar Rating	★★★★
3 Year Mstar Rating	★★★★
% Rank Cat 3 Yr	16
5 Year Mstar Rating	★★★★
% Rank Cat 5 Yr	10
10 Year Mstar Rating	★★★★
% Rank Cat 10 Yr	18

Expense Ratio vs. Peer Group



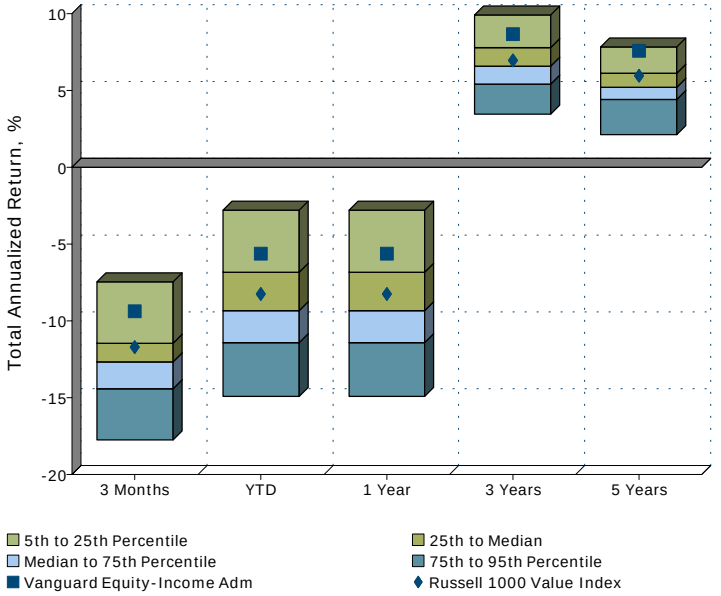
Turnover Ratio vs. Peer Group



Investment Strategy Summary

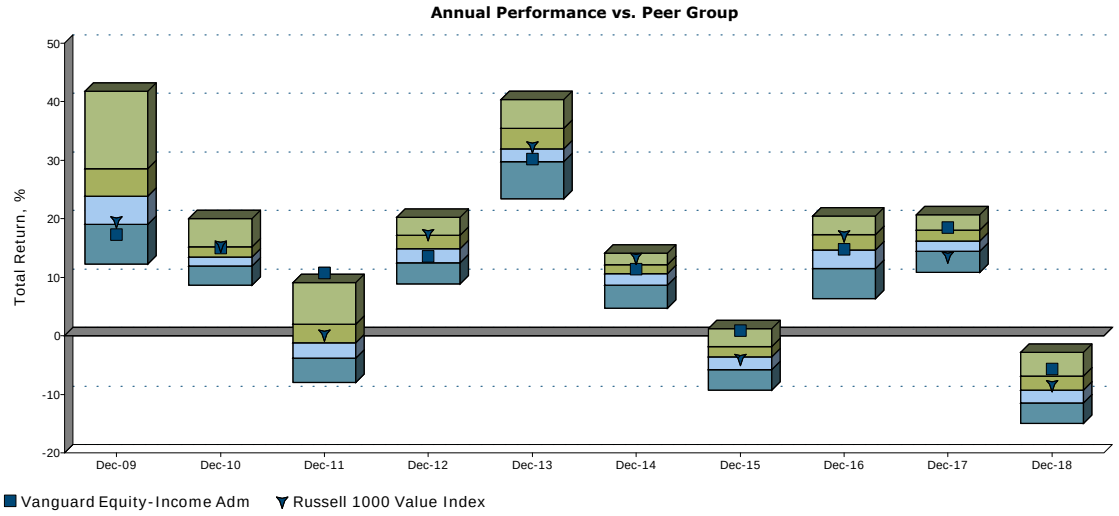
The investment seeks to provide an above-average level of current income and reasonable long-term capital appreciation. The fund invests mainly in common stocks of mid-size and large companies whose stocks typically pay above-average levels of dividend income and are, in the opinion of the purchasing 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 vs. Peer Group

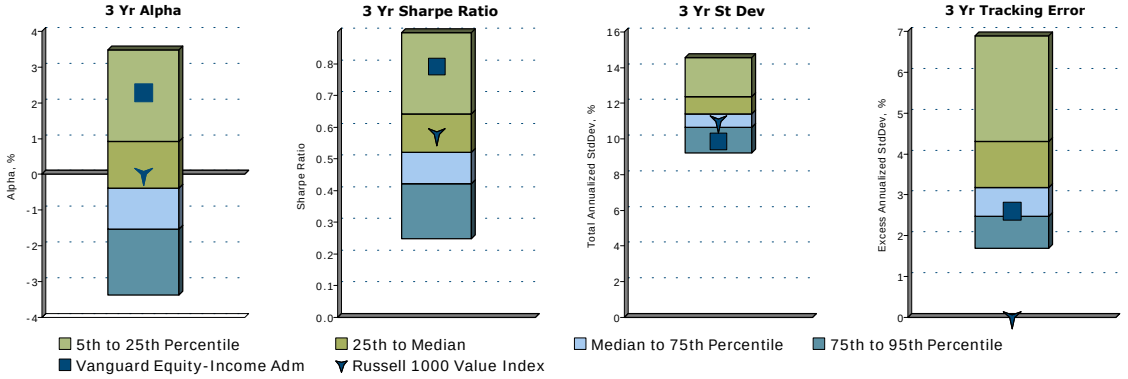


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Vanguard Equity-Income Adm	-9.36	-5.65	-5.65	8.68	7.60
Russell 1000 Value Index	-11.72	-8.27	-8.27	6.95	5.95
Universe(5%)	-7.44	-2.80	-2.80	9.93	7.82
Universe(25%)	-11.46	-6.84	-6.84	7.80	6.12
Universe(Median)	-12.66	-9.33	-9.33	6.60	5.23
Universe(75%)	-14.43	-11.42	-11.42	5.42	4.42
Universe(95%)	-17.74	-14.93	-14.93	3.47	2.13

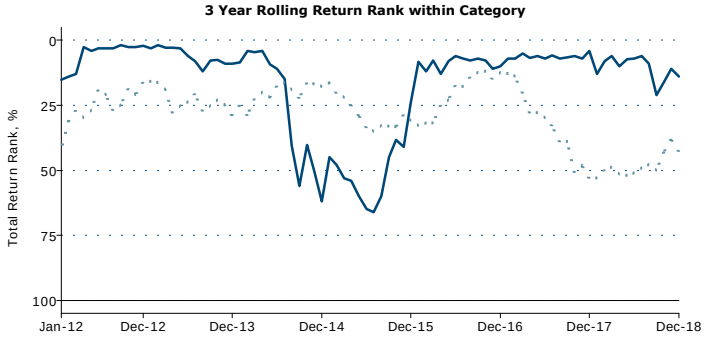
Vanguard Equity-Income Adm

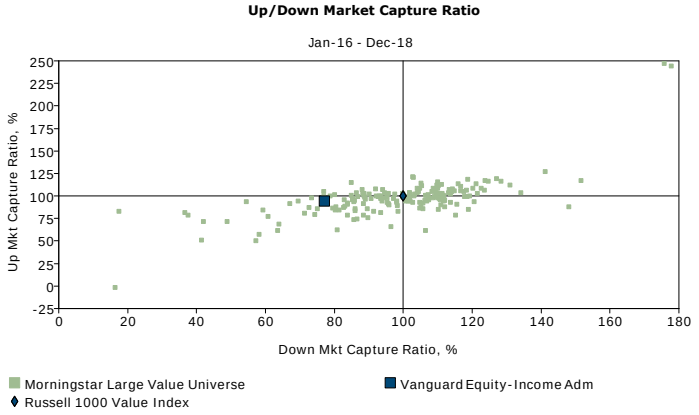


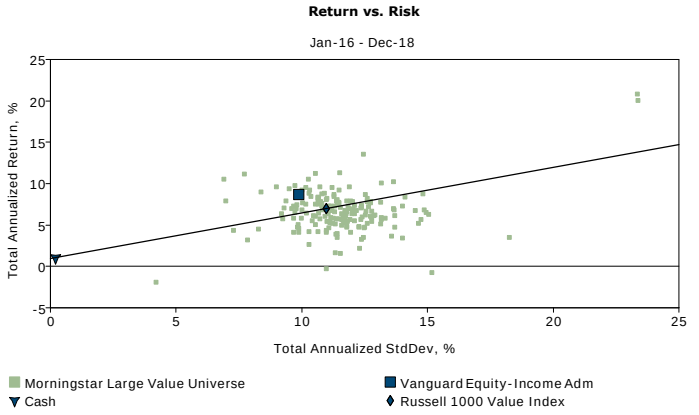
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vanguard Equity-Income Adm	17.26	14.99	10.69	13.58	30.19	11.38	0.86	14.82	18.49	-5.65
Russell 1000 Value Index	19.69	15.51	0.39	17.51	32.53	13.45	-3.83	17.34	13.66	-8.27



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Vanguard Equity-Income Adm	2.28	0.88	94.96	0.79	9.88	2.61	2.90
Russell 1000 Value Index	0.00	1.00	100.00	0.58	10.98	0.00	1.66
Universe(5%)	3.48	1.22	97.78	0.90	14.57	6.89	3.64
Universe(25%)	0.93	1.08	96.29	0.64	12.38	4.31	1.97
Universe(Median)	-0.39	1.01	92.99	0.52	11.41	3.18	1.43
Universe(75%)	-1.53	0.92	88.58	0.42	10.64	2.48	1.04
Universe(95%)	-3.38	0.72	70.83	0.25	9.21	1.70	0.52







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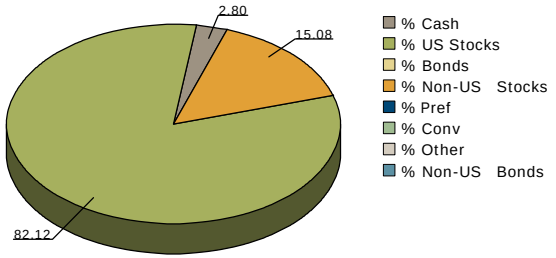
Vanguard PRIMECAP Core Inv



Portfolio Region	
% United States	84.49
% Canada	0.38
% Latin America	0.00
% United Kingdom	2.74
% Eurozone	3.89
% Europe - ex Euro	3.92
% Europe - Emerging	0.00
% Africa	0.00
% Middle East	0.00
% Japan	1.95
% Australasia	0.00
% Asia - Developed	0.76
% Asia - Emerging	1.88

Portfolio Structure	
% Cash	2.80
% US Stocks	82.12
% Bonds	0.00
% Non-US Stocks	15.08
% Pref	0.00
% Conv	0.00
% Other	0.00
% Non-US Bonds	0.00

Sector Allocation	
% Basic Materials	0.66
% Communication Services	0.74
% Consumer Cyclical	11.20
% Consumer Defensive	0.49
% Healthcare	23.59
% Industrials	20.25
% Real Estate	0.01
% Technology	31.41
% Energy	0.70
% Financial Services	10.94
% Utilities	0.00

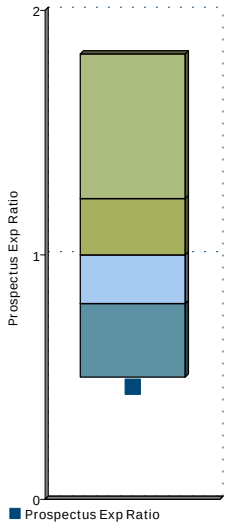
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
Southwest Airlines Co	4.82%
Eli Lilly and Co	4.01%
JPMorgan Chase & Co	3.31%
Amgen Inc	3.31%
Texas Instruments Inc	2.87%
Biogen Inc	2.60%
Microsoft Corp	2.53%
AstraZeneca PLC ADR	2.26%
NetApp Inc	1.99%
FedEx Corp	1.96%

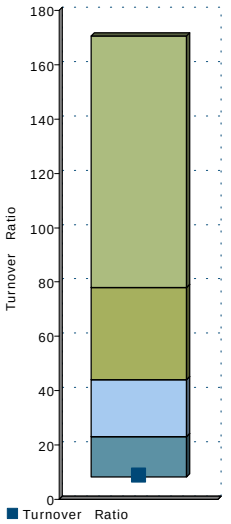
Portfolio Information	
Ticker	VPCCX
Morningstar Category	Large Blend
Avg Mkt Cap $MM	67225.92
Cat Med Mkt Cap $MM	161637.69
Net Assets $MM	9730.00
Turnover Ratio	9.00
% Assets in Top 10 Holdings	29.65
Total Number of Holdings	153.00
Manager Name	Alfred W. Mordecai
Manager Tenure	14.07
Fund Incept Date	12/09/2004
Prospectus Exp Ratio	0.46
Phone Number	800-662-7447

Portfolio Ratings	
Mstar Rating	★★★★★
3 Year Mstar Rating	★★★★★
% Rank Cat 3 Yr	4
5 Year Mstar Rating	★★★★★
% Rank Cat 5 Yr	1
10 Year Mstar Rating	★★★★★
% Rank Cat 10 Yr	3

Expense Ratio vs. Peer Group



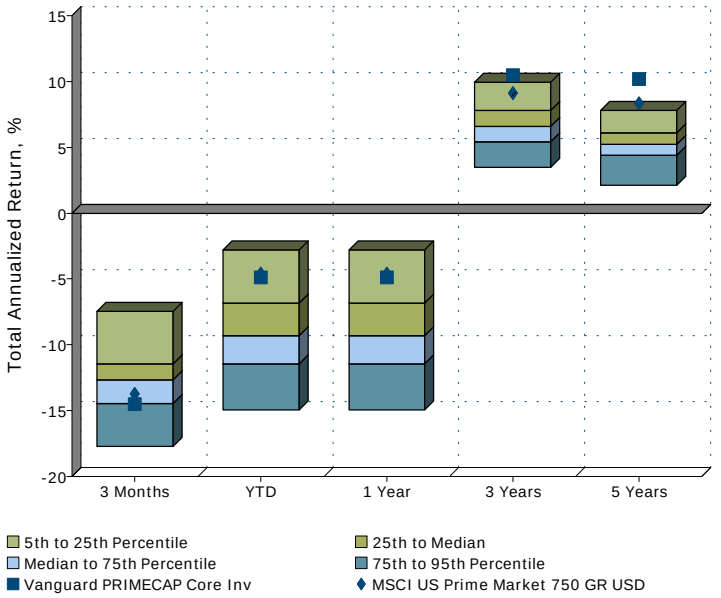
Turnover Ratio vs. Peer Group



Investment Strategy Summary

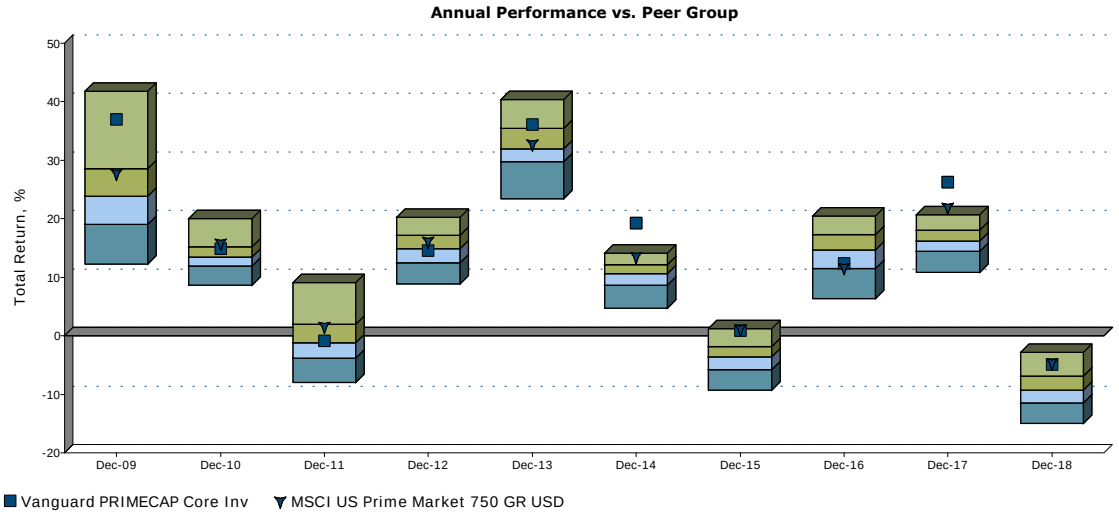
The investment seeks to provide long-term capital appreciation. The fund invests in stocks that its advisor believes offer a good balance between reasonable valuations and attractive growth prospects relative to their peers. Stocks selected for the fund typically have earnings growth potential that, 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 vs. Peer Group

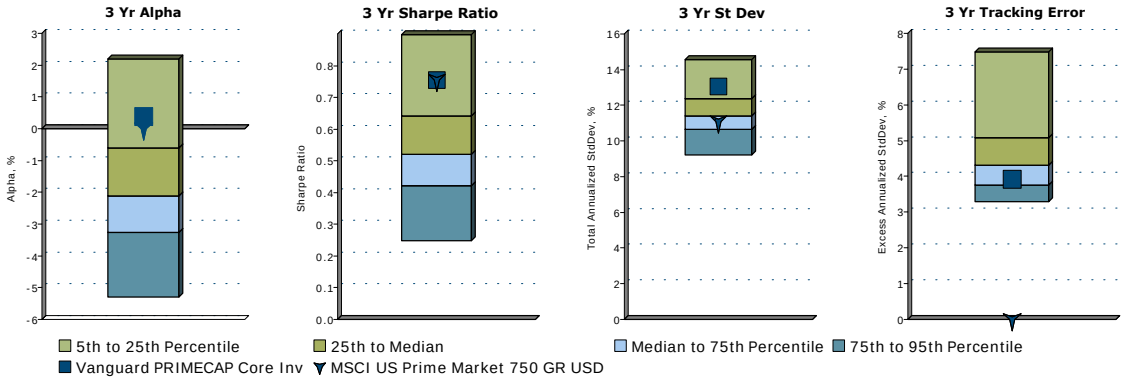


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Vanguard PRIMECAP Core Inv	-14.50	-4.90	-4.90	10.48	10.18
MSCI US Prime Market 750 GR USD	-13.75	-4.61	-4.61	9.13	8.36
Universe(5%)	-7.44	-2.80	-2.80	9.93	7.82
Universe(25%)	-11.46	-6.84	-6.84	7.80	6.12
Universe(Median)	-12.66	-9.33	-9.33	6.60	5.23
Universe(75%)	-14.43	-11.42	-11.42	5.42	4.42
Universe(95%)	-17.74	-14.93	-14.93	3.47	2.13

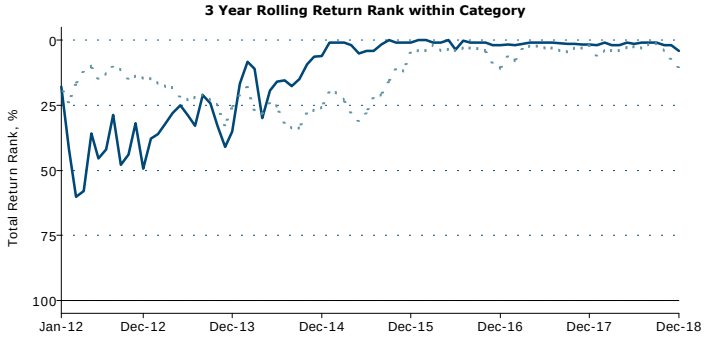
Vanguard PRIMECAP Core Inv

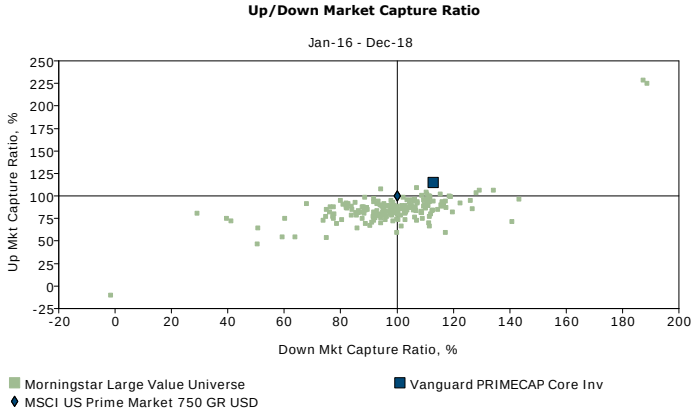


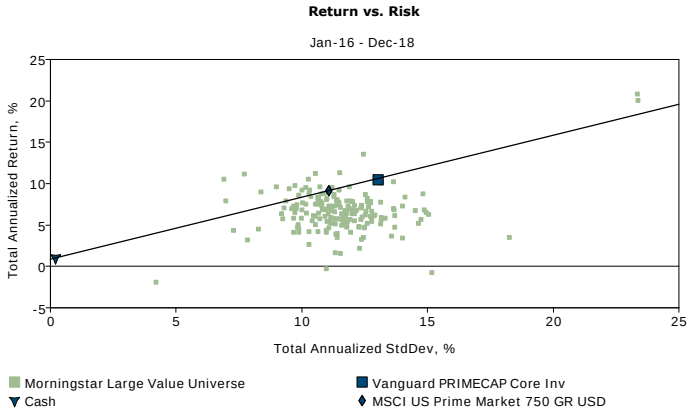
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vanguard PRIMECAP Core Inv	36.96	14.88	-0.86	14.57	36.14	19.29	0.94	12.35	26.23	-4.90
MSCI US Prime Market 750 GR USD	27.80	15.92	1.65	16.18	32.83	13.58	1.22	11.72	21.97	-4.61



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Vanguard PRIMECAP Core Inv	0.39	1.13	92.22	0.75	13.04	3.92	2.48
MSCI US Prime Market 750 GR USD	0.00	1.00	100.00	0.75	11.09	0.00	2.57
Universe(5%)	2.20	1.15	92.21	0.90	14.57	7.48	3.64
Universe(25%)	-0.60	1.04	89.55	0.64	12.38	5.09	1.97
Universe(Median)	-2.11	0.96	87.34	0.52	11.41	4.31	1.43
Universe(75%)	-3.26	0.88	82.36	0.42	10.64	3.76	1.04
Universe(95%)	-5.29	0.69	70.55	0.25	9.21	3.28	0.52







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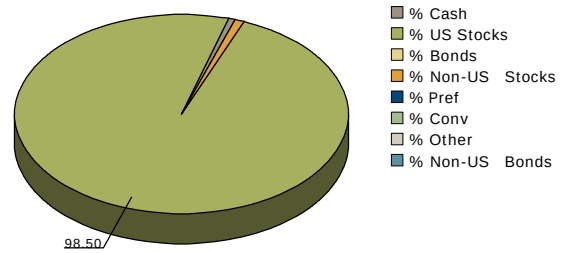
Vanguard Growth Index Admiral



Portfolio Region	
% United States	99.04
% Canada	0.18
% Latin America	0.00
% United Kingdom	0.78
% Eurozone	0.00
% Europe - ex Euro	0.00
% Europe - Emerging	0.00
% Africa	0.00
% Middle East	0.00
% Japan	0.00
% Australasia	0.00
% Asia - Developed	0.00
% Asia - Emerging	0.00

Portfolio Structure	
% Cash	0.53
% US Stocks	98.50
% Bonds	0.01
% Non-US Stocks	0.96
% Pref	0.00
% Conv	0.00
% Other	0.00
% Non-US Bonds	0.00

Sector Allocation	
% Basic Materials	2.38
% Communication Services	3.06
% Consumer Cyclical	19.60
% Consumer Defensive	5.33
% Healthcare	12.54
% Industrials	10.88
% Real Estate	4.02
% Technology	29.60
% Energy	3.50
% Financial Services	9.10
% Utilities	0.00

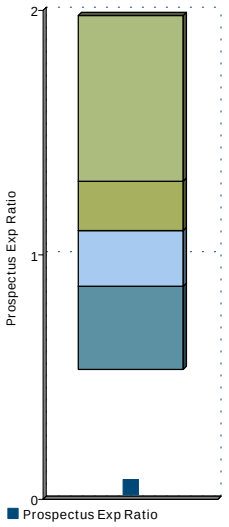
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
Apple Inc	6.87%
Amazon.com Inc	6.20%
Facebook Inc A	3.00%
Alphabet Inc A	2.93%
Alphabet Inc Class C	2.89%
Visa Inc Class A	2.23%
The Home Depot Inc	1.83%
Boeing Co	1.67%
Mastercard Inc A	1.64%
Comcast Corp Class A	1.58%

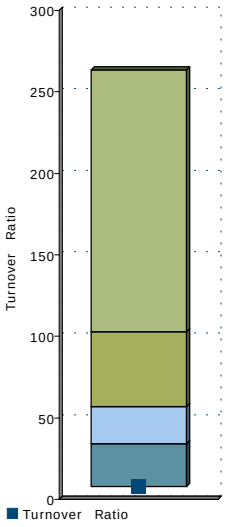
Portfolio Information	
Ticker	VIGAX
Morningstar Category	Large Growth
Avg Mkt Cap $MM	90412.56
Cat Med Mkt Cap $MM	169181.66
Net Assets $MM	73064.00
Turnover Ratio	8.00
% Assets in Top 10 Holdings	30.83
Total Number of Holdings	315.00
Manager Name	Gerard C. O'Reilly
Manager Tenure	24.02
Fund Incept Date	11/02/1992
Prospectus Exp Ratio	0.05
Phone Number	800-662-7447

Portfolio Ratings	
Mstar Rating	★★★★
3 Year Mstar Rating	★★★
% Rank Cat 3 Yr	46
5 Year Mstar Rating	★★★
% Rank Cat 5 Yr	41
10 Year Mstar Rating	★★★★
% Rank Cat 10 Yr	35

Expense Ratio vs. Peer Group



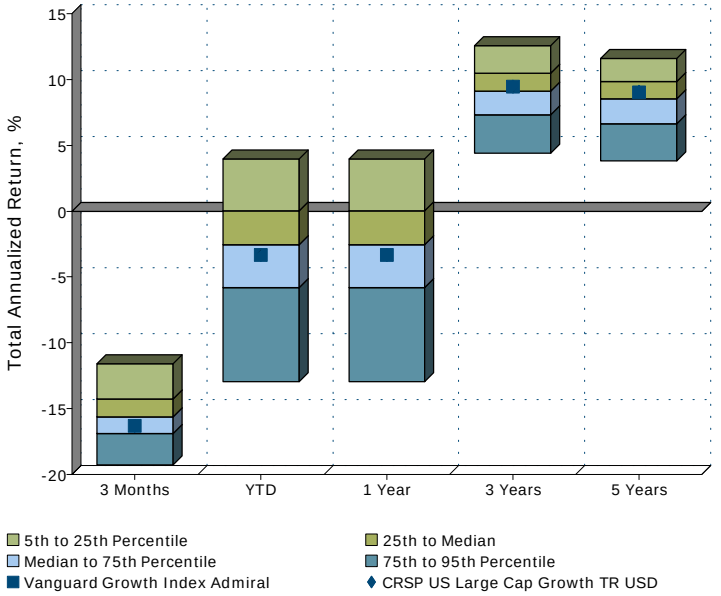
Turnover Ratio vs. Peer Group



Investment Strategy Summary

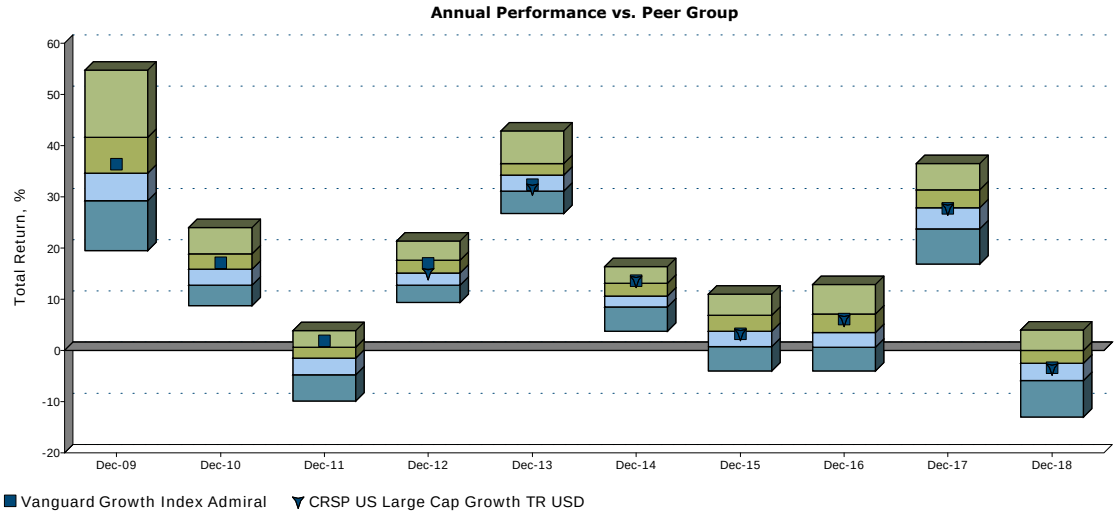
The investment seeks to track the performance of a benchmark index that measures the investment return of large-capitalization growth stocks. The fund employs an indexing investment approach designed to track the performance of the CRSP US Large Cap Growth Index, a broadly diversified index predominantly 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.

Performance vs. Peer Group

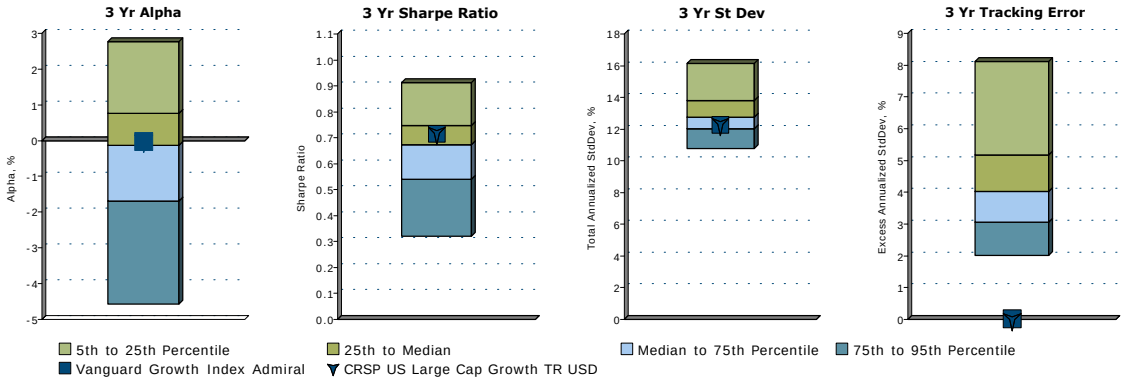


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Vanguard Growth Index Admiral	-16.30	-3.34	-3.34	9.45	9.00
CRSP US Large Cap Growth TR USD	-16.32	-3.34	-3.34	9.47	9.05
Universe(5%)	-11.57	3.96	3.96	12.58	11.62
Universe(25%)	-14.26	0.04	0.04	10.48	9.83
Universe(Median)	-15.61	-2.56	-2.56	9.11	8.53
Universe(75%)	-16.87	-5.82	-5.82	7.32	6.65
Universe(95%)	-19.28	-12.96	-12.96	4.41	3.80

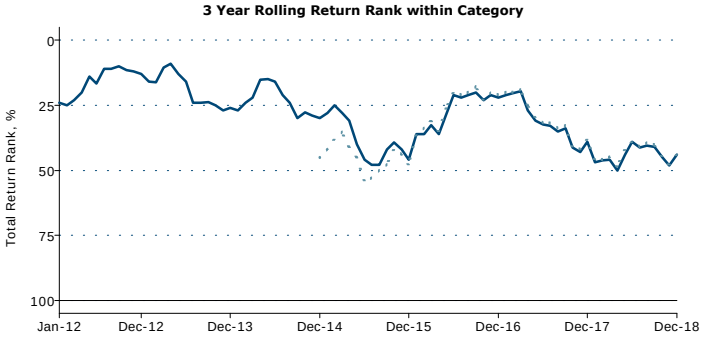
Vanguard Growth Index Admiral

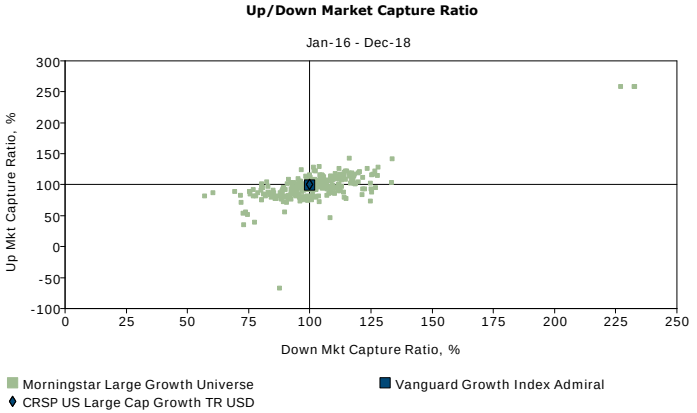


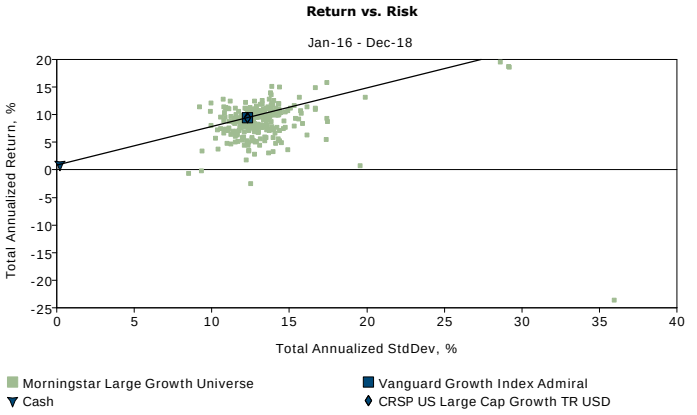
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vanguard Growth Index Admiral	36.42	17.12	1.87	17.01	32.40	13.63	3.30	6.12	27.80	-3.34
CRSP US Large Cap Growth TR USD	NA	NA	NA	15.20	31.75	13.69	3.38	6.16	27.86	-3.34



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Vanguard Growth Index Admiral	-0.02	1.00	100.00	0.72	12.29	0.03	2.30
CRSP US Large Cap Growth TR USD	0.00	1.00	100.00	0.72	12.30	0.00	2.30
Universe(5%)	2.76	1.18	97.44	0.91	16.13	8.12	3.64
Universe(25%)	0.76	1.06	94.76	0.75	13.82	5.17	2.48
Universe(Median)	-0.14	0.99	91.20	0.67	12.75	4.04	2.01
Universe(75%)	-1.68	0.92	86.51	0.54	12.04	3.05	1.42
Universe(95%)	-4.56	0.80	71.64	0.32	10.77	2.01	0.70







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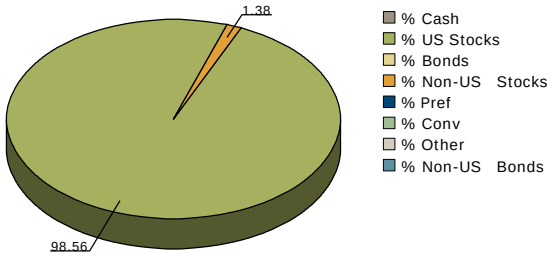
Data as of 12/31/2018

Vanguard Mid-Cap Value Index Admiral



Portfolio Region	
% United States	98.62
% Canada	0.00
% Latin America	0.00
% United Kingdom	0.31
% Eurozone	0.00
% Europe - ex Euro	0.00
% Europe - Emerging	0.00
% Africa	0.00
% Middle East	0.00
% Japan	0.00
% Australasia	0.00
% Asia - Developed	0.56
% Asia - Emerging	0.50

Portfolio Structure	
% Cash	0.05
% US Stocks	98.56
% Bonds	0.01
% Non-US Stocks	1.38
% Pref	0.00
% Conv	0.00
% Other	0.00
% Non-US Bonds	0.00

Sector Allocation	
% Basic Materials	5.83
% Communication Services	1.97
% Consumer Cyclical	19.84
% Consumer Defensive	5.97
% Healthcare	5.39
% Industrials	8.54
% Real Estate	5.65
% Technology	10.46
% Energy	3.83
% Financial Services	20.66
% Utilities	11.86

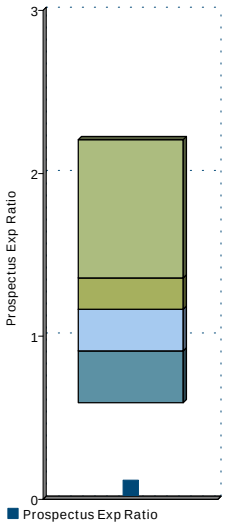
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
WEC Energy Group Inc	1.15%
M&T Bank Corp	1.10%
DTE Energy Co	1.09%
Eversource Energy	1.09%
Motorola Solutions Inc	1.07%
Clorox Co	1.07%
Dell-VMWare Tracking Stock V	1.06%
Willis Towers Watson PLC	1.05%
KeyCorp	0.97%
Royal Caribbean Cruises Ltd	0.95%

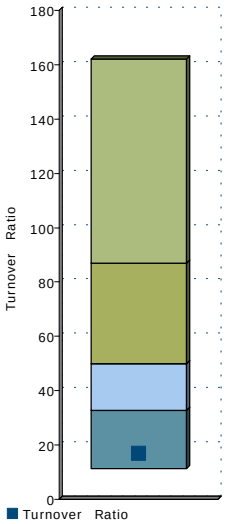
Portfolio Information	
Ticker	VMVAX
Morningstar Category	Mid-Cap Value
Avg Mkt Cap $MM	12808.34
Cat Med Mkt Cap $MM	10356.89
Net Assets $MM	16121.00
Turnover Ratio	17.00
% Assets in Top 10 Holdings	10.60
Total Number of Holdings	210.00
Manager Name	Donald M. Butler
Manager Tenure	12.38
Fund Incept Date	09/27/2011
Prospectus Exp Ratio	0.07
Phone Number	800-662-7447

Portfolio Ratings	
Mstar Rating	★★★★
3 Year Mstar Rating	★★★
% Rank Cat 3 Yr	43
5 Year Mstar Rating	★★★★
% Rank Cat 5 Yr	14
10 Year Mstar Rating	★★★★★
% Rank Cat 10 Yr	12

Expense Ratio vs. Peer Group



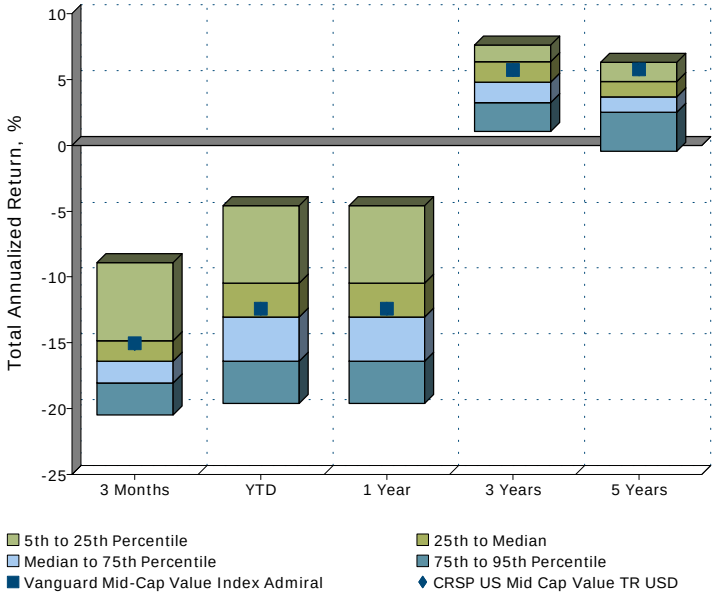
Turnover Ratio vs. Peer Group



Investment Strategy Summary

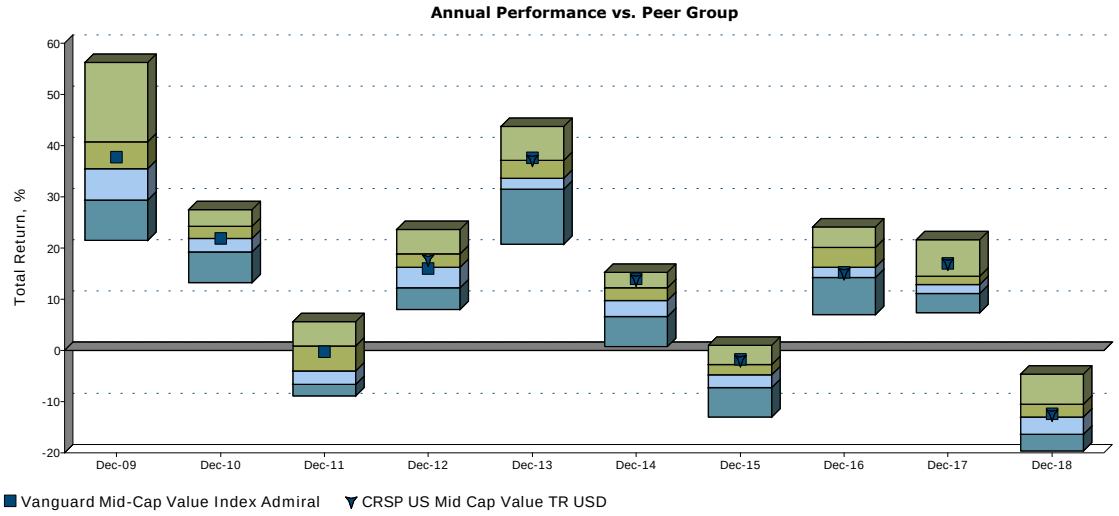
The investment seeks to track the performance of the CRSP US Mid Cap Value Index that measures the investment return of mid-capitalization value stocks. The fund employs an indexing investment approach designed to track the performance of the CRSP US Mid Cap Value Index, a broadly diversified index of 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 vs. Peer Group

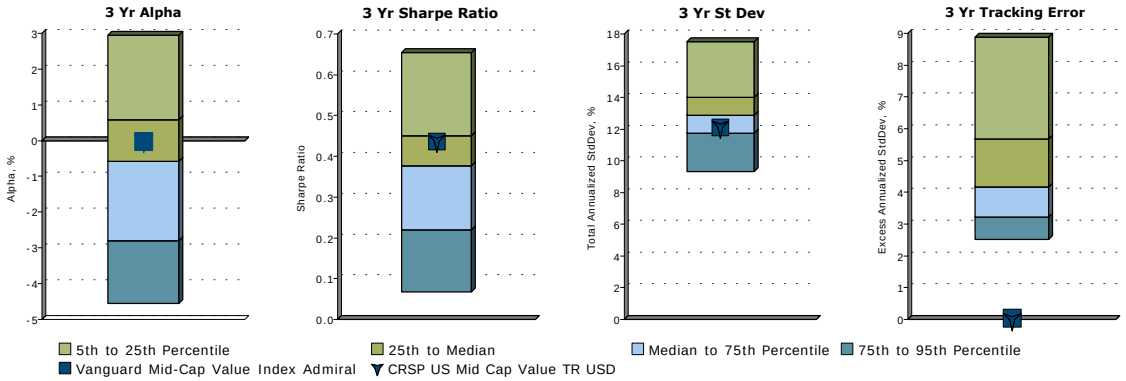


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Vanguard Mid-Cap Value Index Admiral	-15.06	-12.42	-12.42	5.71	5.75
CRSP US Mid Cap Value TR USD	-15.06	-12.42	-12.42	5.75	5.79
Universe(5%)	-8.89	-4.61	-4.61	7.62	6.31
Universe(25%)	-14.83	-10.45	-10.45	6.33	4.84
Universe(Median)	-16.40	-13.05	-13.05	4.81	3.69
Universe(75%)	-18.05	-16.39	-16.39	3.24	2.53
Universe(95%)	-20.50	-19.62	-19.62	1.08	-0.47

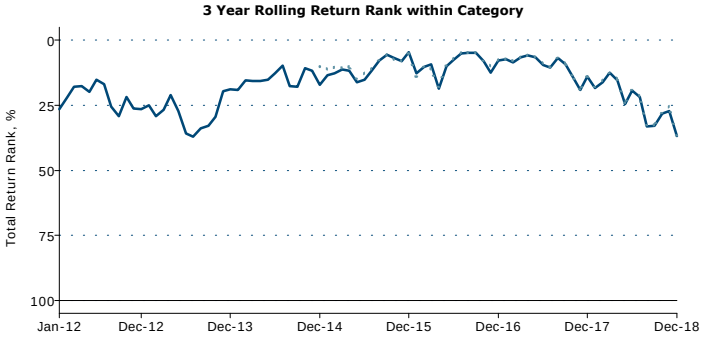
Vanguard Mid-Cap Value Index Admiral

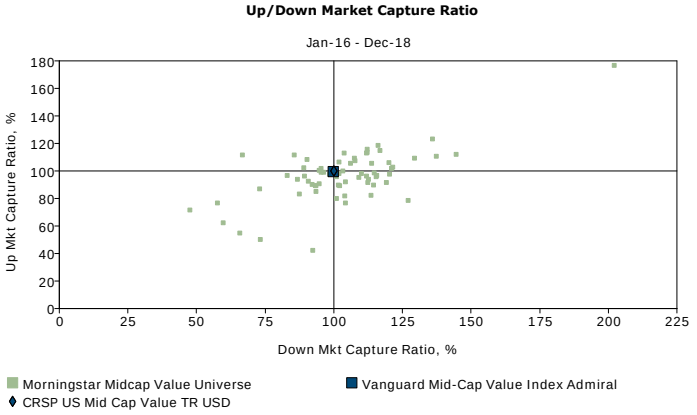


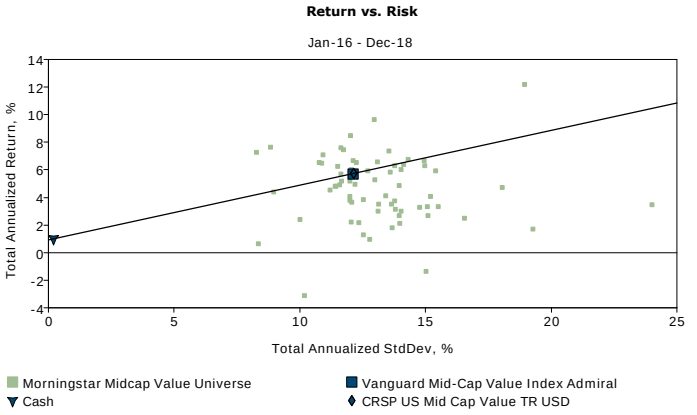
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vanguard Mid-Cap Value Index Admiral	37.74	21.82	-0.29	16.02	37.66	13.98	-1.80	15.26	17.04	-12.42
CRSP US Mid Cap Value TR USD	NA	NA	NA	17.90	37.38	14.05	-1.75	15.28	17.12	-12.42



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Vanguard Mid-Cap Value Index Admiral	-0.02	1.00	100.00	0.44	12.12	0.04	1.07
CRSP US Mid Cap Value TR USD	0.00	1.00	100.00	0.44	12.14	0.00	1.08
Universe(5%)	2.95	1.21	95.92	0.65	17.52	8.88	1.91
Universe(25%)	0.58	1.09	93.39	0.45	14.02	5.67	1.13
Universe(Median)	-0.57	1.01	91.02	0.38	12.88	4.17	0.87
Universe(75%)	-2.80	0.93	86.54	0.22	11.73	3.22	0.42
Universe(95%)	-4.56	0.57	56.45	0.07	9.34	2.51	0.14







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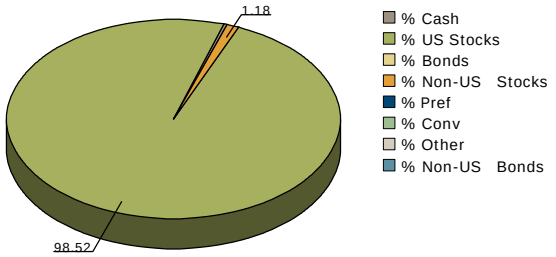
Data as of 12/31/2018

Vanguard Mid Cap Index Admiral



Portfolio Region	
% United States	98.82
% Canada	0.51
% Latin America	0.00
% United Kingdom	0.15
% Eurozone	0.00
% Europe - ex Euro	0.00
% Europe - Emerging	0.00
% Africa	0.00
% Middle East	0.00
% Japan	0.00
% Australasia	0.00
% Asia - Developed	0.27
% Asia - Emerging	0.25

Portfolio Structure	
% Cash	0.30
% US Stocks	98.52
% Bonds	0.00
% Non-US Stocks	1.18
% Pref	0.00
% Conv	0.00
% Other	0.00
% Non-US Bonds	0.00

Sector Allocation	
% Basic Materials	4.35
% Communication Services	1.45
% Consumer Cyclical	15.06
% Consumer Defensive	4.57
% Healthcare	9.82
% Industrials	14.19
% Real Estate	7.19
% Technology	18.33
% Energy	5.48
% Financial Services	13.75
% Utilities	5.81

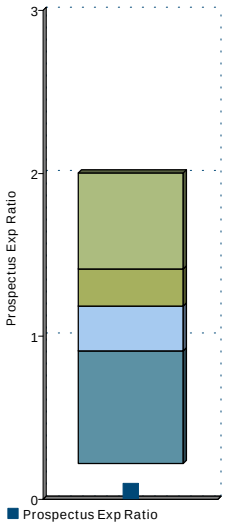
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
Edwards Lifesciences Corp	0.83%
Fiserv Inc	0.79%
Red Hat Inc	0.78%
Autodesk Inc	0.78%
Roper Technologies Inc	0.76%
Centene Corp	0.68%
Amphenol Corp Class A	0.65%
Concho Resources Inc	0.64%
Moody's Corporation	0.64%
Worldpay Inc Class A	0.64%

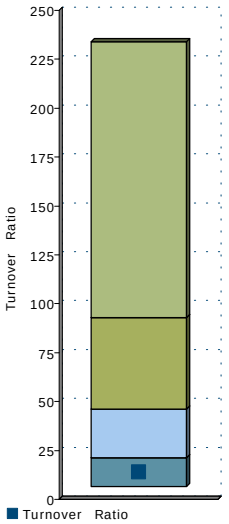
Portfolio Information	
Ticker	VIMAX
Morningstar Category	Mid-Cap Blend
Avg Mkt Cap $MM	14292.20
Cat Med Mkt Cap $MM	7848.72
Net Assets $MM	86953.00
Turnover Ratio	14.00
% Assets in Top 10 Holdings	7.18
Total Number of Holdings	368.00
Manager Name	Donald M. Butler
Manager Tenure	20.63
Fund Incept Date	05/21/1998
Prospectus Exp Ratio	0.05
Phone Number	800-662-7447

Portfolio Ratings	
Mstar Rating	★★★★
3 Year Mstar Rating	★★★
% Rank Cat 3 Yr	51
5 Year Mstar Rating	★★★★
% Rank Cat 5 Yr	15
10 Year Mstar Rating	★★★★★
% Rank Cat 10 Yr	10

Expense Ratio vs. Peer Group



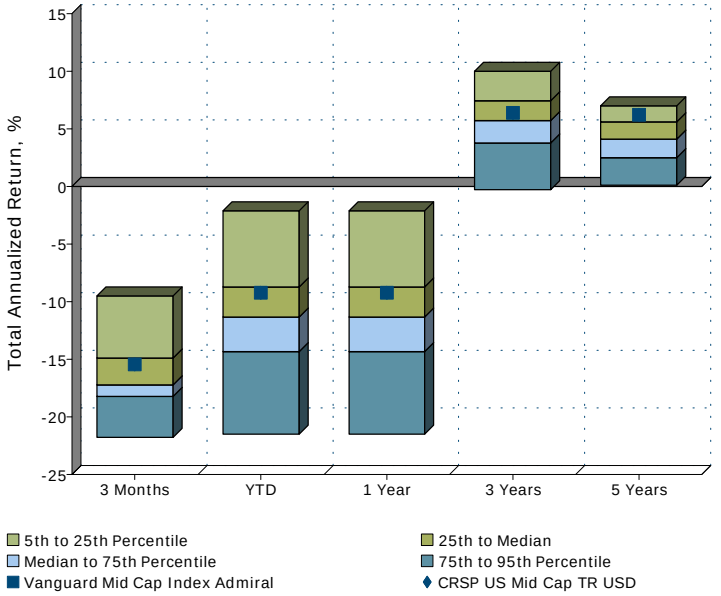
Turnover Ratio vs. Peer Group



Investment Strategy Summary

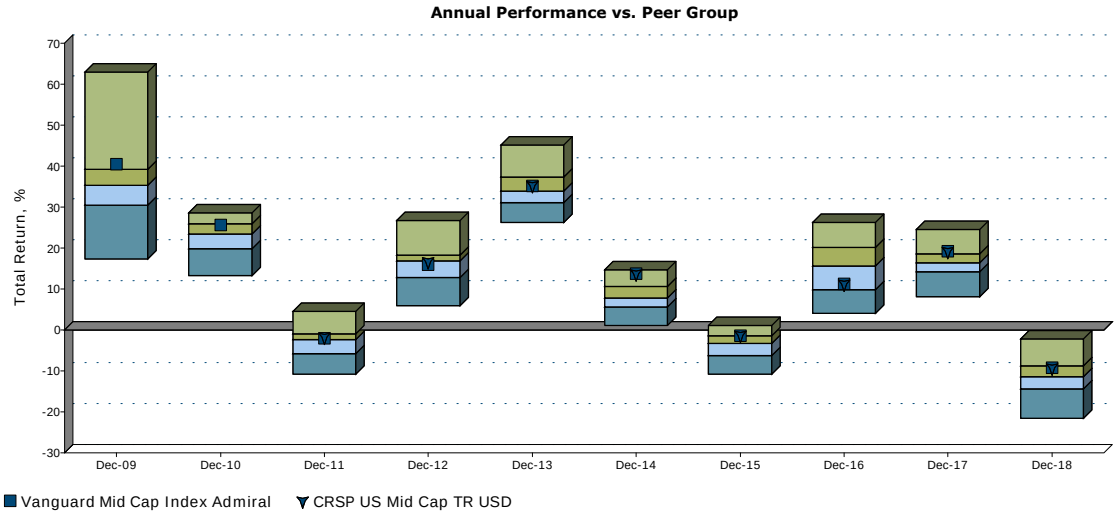
The investment seeks to track the performance of a benchmark index that measures the investment return of mid-capitalization stocks. The fund employs an indexing investment approach designed to track the performance of the CRSP US Mid Cap Index, a broadly diversified index of stocks of mid-size U.S. 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 vs. Peer Group

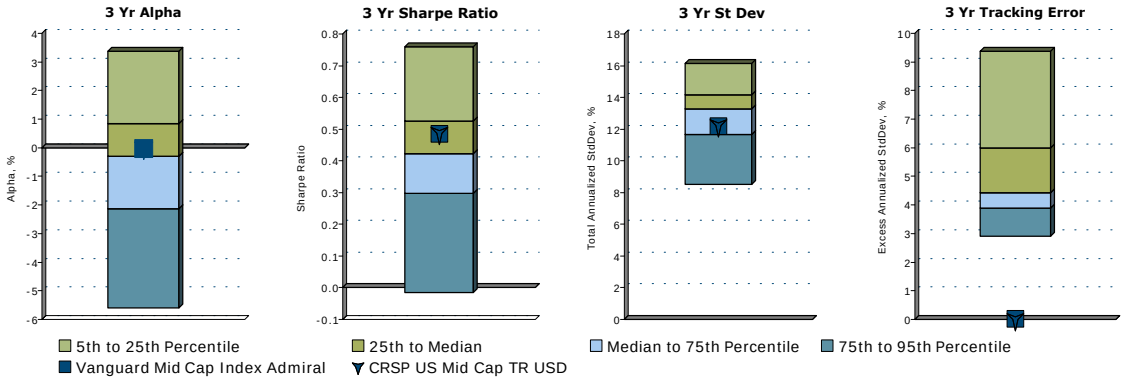


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Vanguard Mid Cap Index Admiral	-15.46	-9.23	-9.23	6.38	6.21
CRSP US Mid Cap TR USD	-15.46	-9.22	-9.22	6.40	6.24
Universe(5%)	-9.53	-2.13	-2.13	10.02	7.00
Universe(25%)	-14.91	-8.70	-8.70	7.45	5.63
Universe(Median)	-17.24	-11.33	-11.33	5.71	4.09
Universe(75%)	-18.23	-14.32	-14.32	3.76	2.48
Universe(95%)	-21.78	-21.51	-21.51	-0.26	0.11

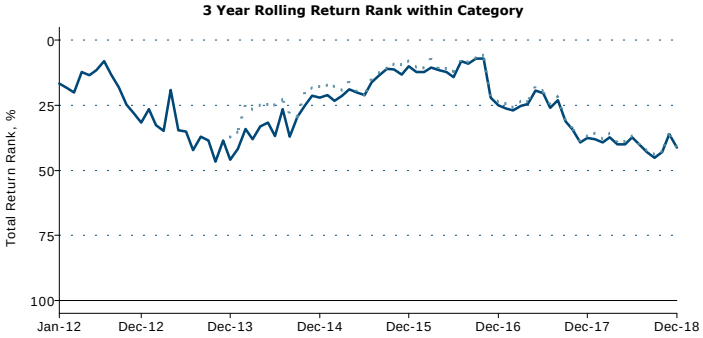
Vanguard Mid Cap Index Admiral

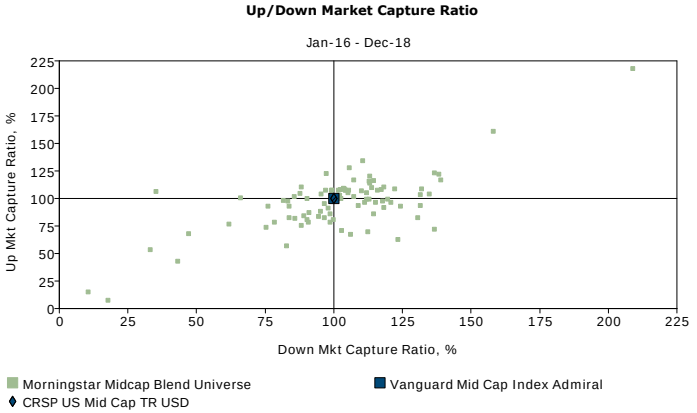


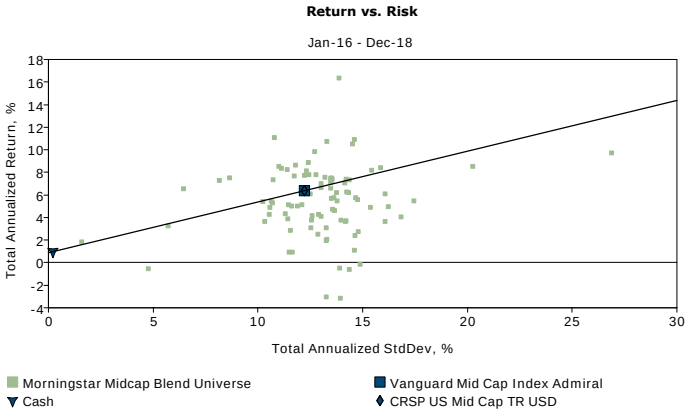
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vanguard Mid Cap Index Admiral	40.48	25.59	-1.97	15.99	35.15	13.76	-1.34	11.22	19.25	-9.23
CRSP US Mid Cap TR USD	NA	NA	-1.79	16.69	35.27	13.83	-1.28	11.25	19.30	-9.22



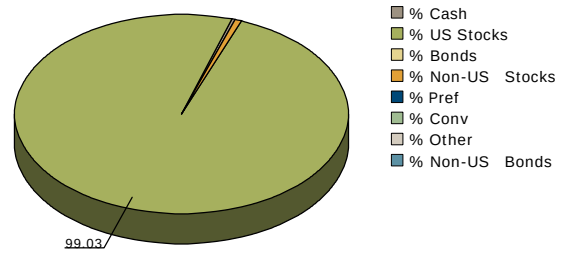
MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Vanguard Mid Cap Index Admiral	-0.02	1.00	100.00	0.49	12.21	0.02	1.24
CRSP US Mid Cap TR USD	0.00	1.00	100.00	0.49	12.22	0.00	1.25
Universe(5%)	3.38	1.22	94.79	0.76	16.13	9.38	2.89
Universe(25%)	0.84	1.07	91.99	0.53	14.18	5.99	1.37
Universe(Median)	-0.30	1.01	88.78	0.42	13.27	4.42	0.99
Universe(75%)	-2.14	0.90	83.53	0.30	11.68	3.90	0.63
Universe(95%)	-5.59	0.58	66.66	-0.02	8.50	2.91	-0.03







PGIM QMA Small-Cap Value R6



Portfolio Region	
% United States	99.34
% Canada	0.00
% Latin America	0.46
% United Kingdom	0.00
% Eurozone	0.00
% Europe - ex Euro	0.00
% Europe - Emerging	0.00
% Africa	0.19
% Middle East	0.00
% Japan	0.00
% Australasia	0.00
% Asia - Developed	0.00
% Asia - Emerging	0.00

Portfolio Structure	
% Cash	0.32
% US Stocks	99.03
% Bonds	0.00
% Non-US Stocks	0.65
% Pref	0.00
% Conv	0.00
% Other	0.00
% Non-US Bonds	0.00

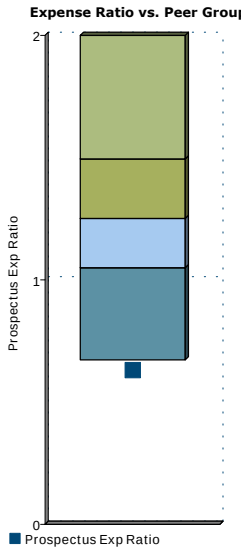
Sector Allocation	
% Basic Materials	5.05
% Communication Services	1.11
% Consumer Cyclical	15.57
% Consumer Defensive	2.47
% Healthcare	2.28
% Industrials	12.83
% Real Estate	18.51
% Technology	4.22
% Energy	3.88
% Financial Services	32.47
% Utilities	1.62

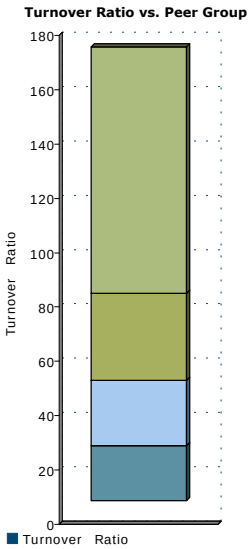
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
Tech Data Corp	1.31%
MGIC Investment Corp	1.18%
Radian Group Inc	1.16%
American Equity Investment Life Holding Co	1.13%
SkyWest Inc	1.11%
IBERIABANK Corp	1.04%
Iridium Communications Inc	0.98%
Triton International Ltd Ordinary Shares	0.98%
GATX Corp	0.93%
RLJ Lodging Trust	0.93%

Portfolio Information	
Ticker	TSVQX
Morningstar Category	Small Value
Avg Mkt Cap $MM	1575.30
Cat Med Mkt Cap $MM	2730.87
Net Assets $MM	1194.00
Turnover Ratio	NA
% Assets in Top 10 Holdings	10.75
Total Number of Holdings	348.00
Manager Name	Stephen Courtney
Manager Tenure	3.96
Fund Incept Date	01/05/1993
Prospectus Exp Ratio	0.63
Phone Number	800-225-1852

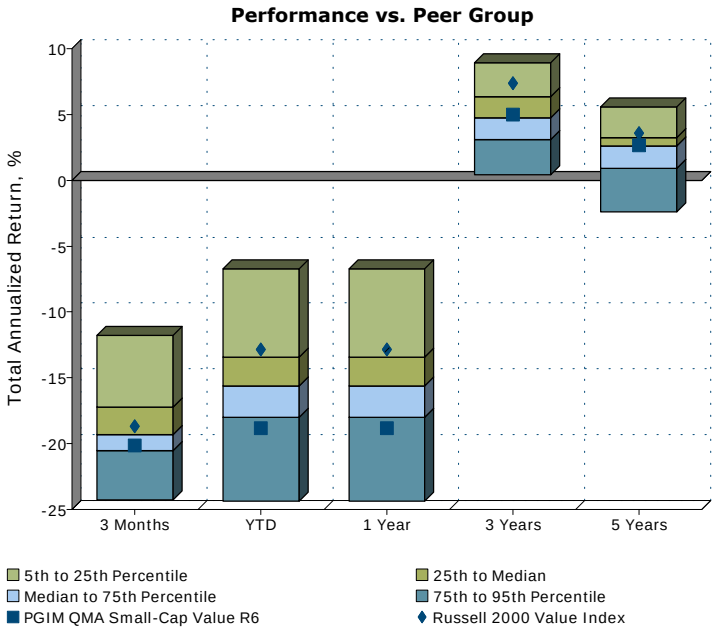
Portfolio Ratings	
Mstar Rating	★★★
3 Year Mstar Rating	★★★
% Rank Cat 3 Yr	50
5 Year Mstar Rating	★★★
% Rank Cat 5 Yr	40
10 Year Mstar Rating	★★★
% Rank Cat 10 Yr	57





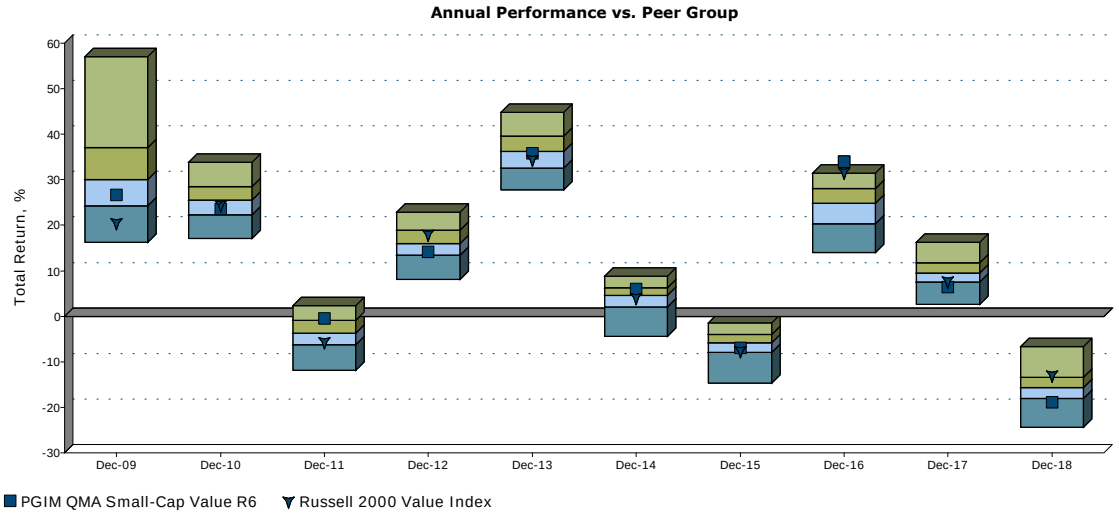
Investment Strategy Summary

The investment seeks above-average capital appreciation. The fund normally invests at least 80% of its investable assets in equity and equity-related securities of small-cap companies. The subadviser considers small-cap companies to be companies with market capitalizations within the market cap range of companies included in the Russell 2000 Index or the Standard & Poor's SmallCap 600 Index. Most assets will typically be invested in U.S. equity and equity-related securities, including up to 25% of total assets in real estate investment trusts (REITs).

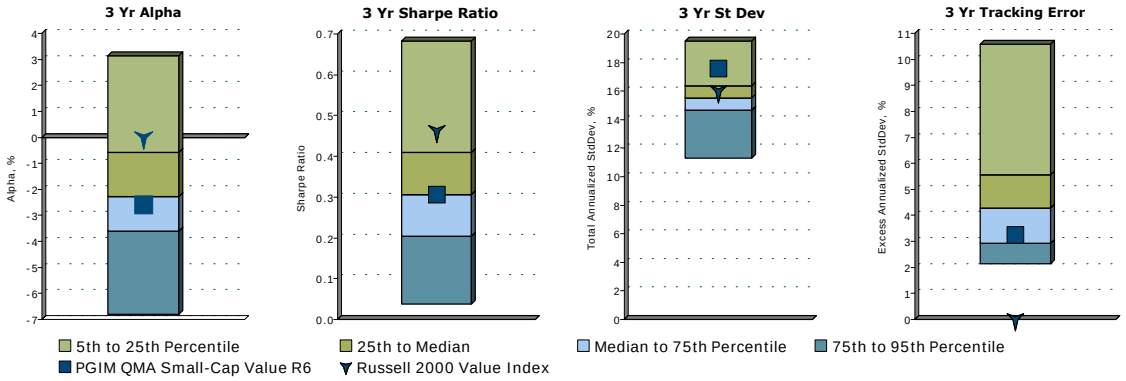


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
PGIM QMA Small-Cap Value R6	-20.13	-18.82	-18.82	5.00	2.67
Russell 2000 Value Index	-18.67	-12.86	-12.86	7.37	3.61
Universe(5%)	-11.76	-6.70	-6.70	8.95	5.59
Universe(25%)	-17.24	-13.45	-13.45	6.37	3.23
Universe(Median)	-19.32	-15.63	-15.63	4.74	2.60
Universe(75%)	-20.53	-18.02	-18.02	3.07	0.91
Universe(95%)	-24.26	-24.38	-24.38	0.41	-2.40

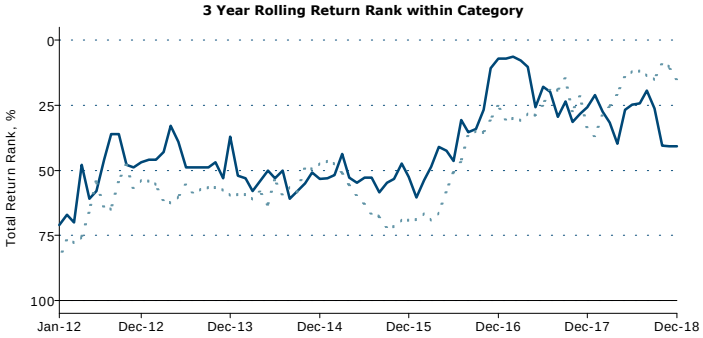
PGIM QMA Small-Cap Value R6

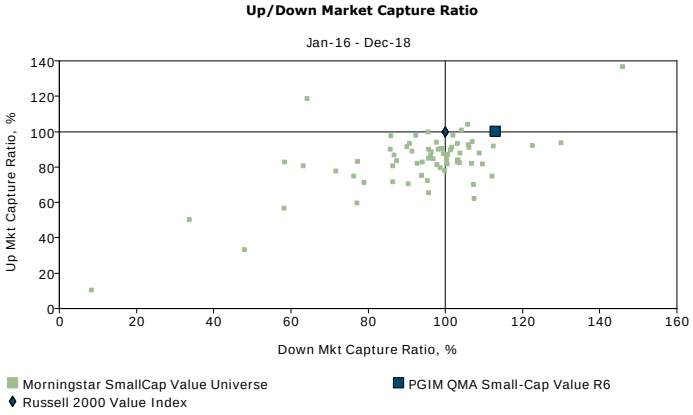


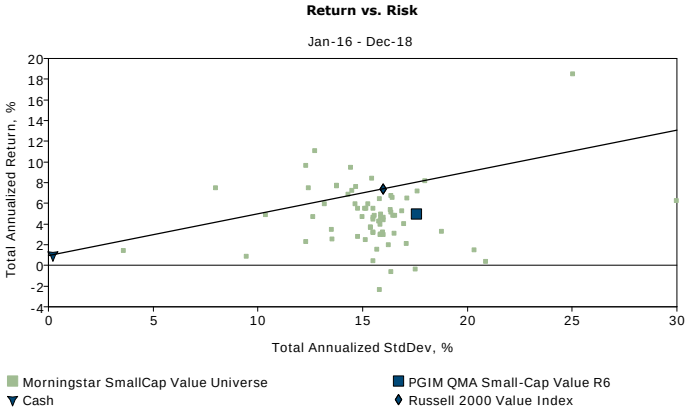
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
PGIM QMA Small-Cap Value R6	26.69	23.63	-0.48	14.14	35.87	5.95	-6.96	33.99	6.43	-18.82
Russell 2000 Value Index	20.58	24.50	-5.50	18.05	34.52	4.22	-7.47	31.74	7.84	-12.86



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
PGIM QMA Small-Cap Value R6	-2.60	1.08	97.20	0.31	17.57	3.24	0.58
Russell 2000 Value Index	0.00	1.00	100.00	0.46	15.98	0.00	1.08
Universe(5%)	3.14	1.11	98.38	0.68	19.53	10.58	2.14
Universe(25%)	-0.57	1.00	97.01	0.41	16.35	5.55	0.90
Universe(Median)	-2.27	0.95	93.68	0.31	15.54	4.27	0.61
Universe(75%)	-3.60	0.88	88.79	0.20	14.65	2.93	0.36
Universe(95%)	-6.80	0.65	67.89	0.04	11.31	2.13	0.04







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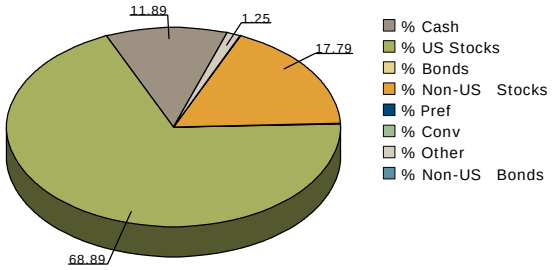
Federated Kaufmann Small Cap Instl



Portfolio Region	
% United States	79.48
% Canada	1.93
% Latin America	0.75
% United Kingdom	3.11
% Eurozone	10.42
% Europe - ex Euro	0.42
% Europe - Emerging	0.00
% Africa	0.00
% Middle East	0.94
% Japan	0.00
% Australasia	0.24
% Asia - Developed	0.50
% Asia - Emerging	2.20

Portfolio Structure	
% Cash	11.89
% US Stocks	68.89
% Bonds	0.15
% Non-US Stocks	17.79
% Pref	0.00
% Conv	0.03
% Other	1.25
% Non-US Bonds	0.00

Sector Allocation	
% Basic Materials	2.10
% Communication Services	0.97
% Consumer Cyclical	12.55
% Consumer Defensive	0.00
% Healthcare	31.32
% Industrials	8.51
% Real Estate	5.94
% Technology	33.96
% Energy	0.65
% Financial Services	4.00
% Utilities	0.00

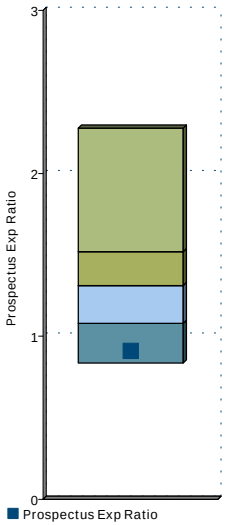
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
Veeva Systems Inc Class A	1.52%
argenx SE ADR	1.48%
Galapagos NV ADR	1.47%
AnaptysBio Inc	1.31%
Rapid7 Inc	1.12%
argenx SE	1.11%
GoDaddy Inc A	1.09%
XPO Logistics Inc	1.05%
ShotSpotter Inc	1.03%
CoStar Group Inc	1.01%

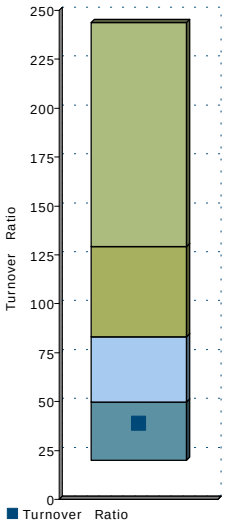
Portfolio Information	
Ticker	FKAIX
Morningstar Category	Small Growth
Avg Mkt Cap $MM	2705.76
Cat Med Mkt Cap $MM	3221.89
Net Assets $MM	1532.00
Turnover Ratio	39.00
% Assets in Top 10 Holdings	12.19
Total Number of Holdings	181.00
Manager Name	Hans P. Utsch
Manager Tenure	16.05
Fund Incept Date	12/18/2002
Prospectus Exp Ratio	0.91
Phone Number	800-341-7400

Portfolio Ratings	
Mstar Rating	★★★★★
3 Year Mstar Rating	★★★★★
% Rank Cat 3 Yr	2
5 Year Mstar Rating	★★★★★
% Rank Cat 5 Yr	1
10 Year Mstar Rating	★★★★
% Rank Cat 10 Yr	6

Expense Ratio vs. Peer Group



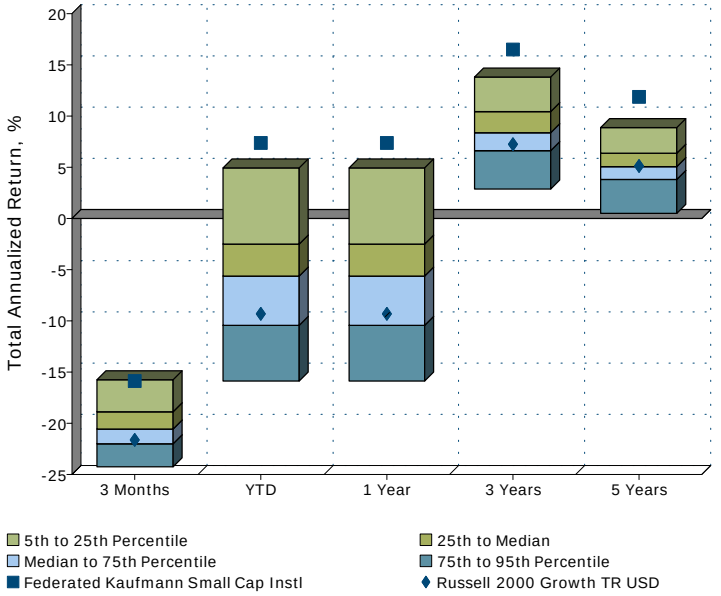
Turnover Ratio vs. Peer Group



Investment Strategy Summary

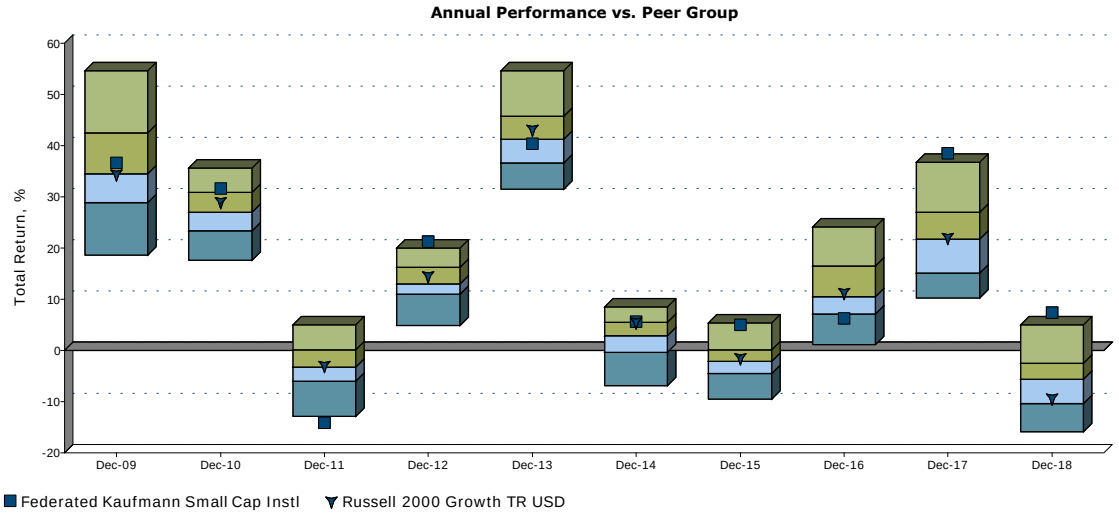
The investment seeks to provide capital appreciation. The fund invests primarily in the common stocks of small companies that are traded on national security exchanges, the NASDAQ stock market and on the over-the-counter market. It will normally invest at least 80% of its net assets (which include the 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 vs. Peer Group

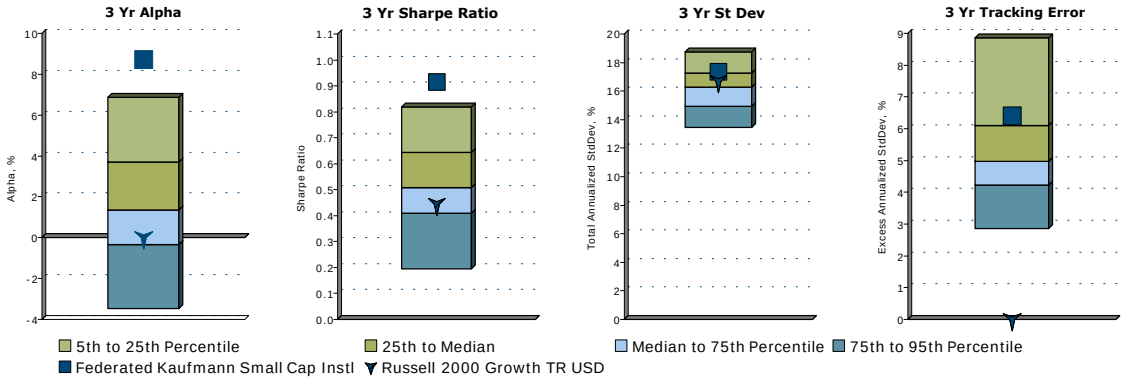


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Federated Kaufmann Small Cap Instl	-15.90	7.40	7.40	16.48	11.88
Russell 2000 Growth TR USD	-21.65	-9.31	-9.31	7.24	5.13
Universe(5%)	-15.74	4.95	4.95	13.82	8.85
Universe(25%)	-18.89	-2.50	-2.50	10.44	6.40
Universe(Median)	-20.59	-5.65	-5.65	8.35	5.04
Universe(75%)	-21.99	-10.43	-10.43	6.62	3.82
Universe(95%)	-24.28	-15.86	-15.86	2.86	0.48

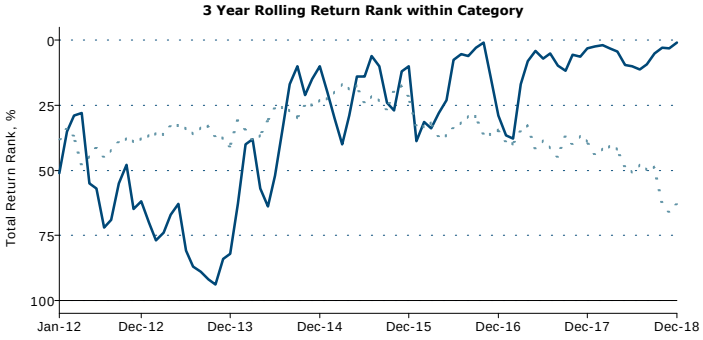
Federated Kaufmann Small Cap Instl

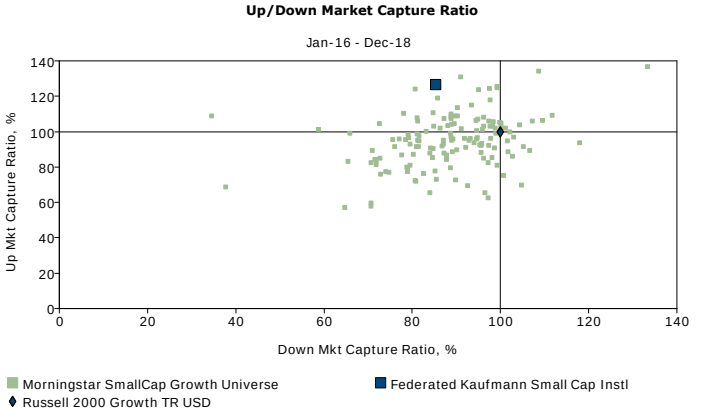


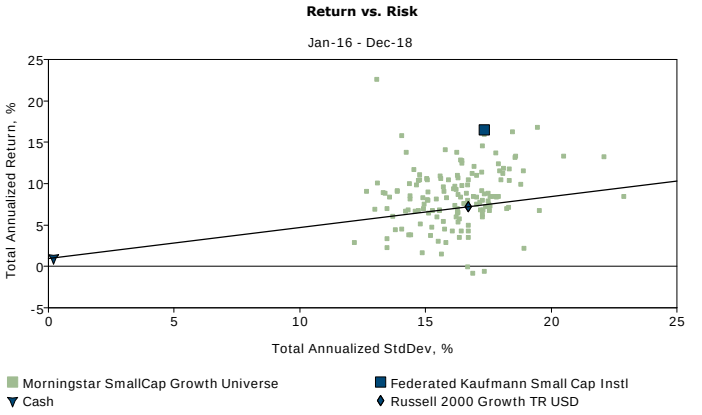
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Federated Kaufmann Small Cap Instl	36.58	31.61	-14.18	21.27	40.35	5.66	4.98	6.27	38.46	7.40
Russell 2000 Growth TR USD	34.47	29.09	-2.91	14.59	43.30	5.60	-1.38	11.32	22.17	-9.31



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Federated Kaufmann Small Cap Instl	8.73	0.96	86.48	0.92	17.34	6.40	3.27
Russell 2000 Growth TR USD	0.00	1.00	100.00	0.44	16.69	0.00	0.97
Universe(5%)	6.87	1.05	97.34	0.82	18.75	8.86	2.76
Universe(25%)	3.69	0.99	93.93	0.64	17.26	6.09	1.79
Universe(Median)	1.35	0.93	91.93	0.51	16.28	4.97	1.22
Universe(75%)	-0.34	0.86	88.01	0.41	14.94	4.22	0.85
Universe(95%)	-3.47	0.75	74.14	0.20	13.46	2.86	0.33







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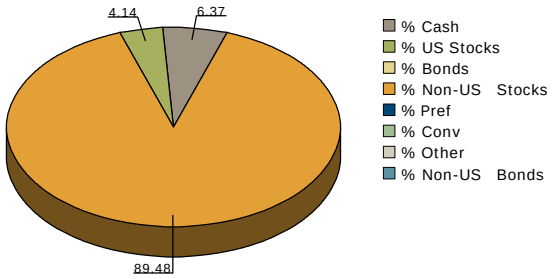
Oppenheimer International Growth I



Portfolio Region	
% United States	4.42
% Canada	4.73
% Latin America	0.00
% United Kingdom	10.96
% Eurozone	36.09
% Europe - ex Euro	16.65
% Europe - Emerging	1.07
% Africa	0.00
% Middle East	0.00
% Japan	12.78
% Australasia	2.37
% Asia - Developed	3.32
% Asia - Emerging	7.59

Portfolio Structure	
% Cash	6.37
% US Stocks	4.14
% Bonds	0.00
% Non-US Stocks	89.48
% Pref	0.01
% Conv	0.00
% Other	0.00
% Non-US Bonds	0.00

Sector Allocation	
% Basic Materials	1.79
% Communication Services	2.64
% Consumer Cyclical	20.81
% Consumer Defensive	13.48
% Healthcare	14.53
% Industrials	14.45
% Real Estate	0.00
% Technology	25.00
% Energy	1.08
% Financial Services	6.24
% Utilities	0.00

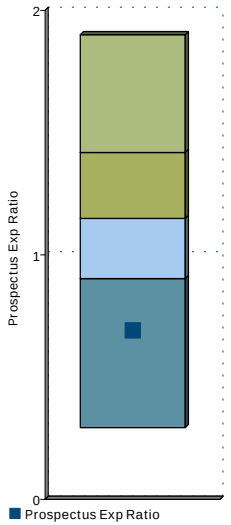
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
Infineon Technologies AG	2.29%
SAP SE	2.25%
ICICI Bank Ltd ADR	2.13%
Bunzl PLC	1.84%
Lonza Group Ltd	1.80%
Temenos AG	1.78%
SES SA DR	1.77%
Novo Nordisk A/S B	1.77%
Nokia Oyj	1.72%
ASML Holding NV	1.70%

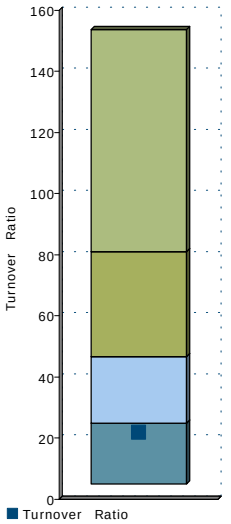
Portfolio Information	
Ticker	OIGIX
Morningstar Category	Foreign Large Growth
Avg Mkt Cap $MM	21598.65
Cat Med Mkt Cap $MM	33139.97
Net Assets $MM	18750.00
Turnover Ratio	22.00
% Assets in Top 10 Holdings	19.04
Total Number of Holdings	84.00
Manager Name	George R. Evans
Manager Tenure	22.78
Fund Incept Date	03/25/1996
Prospectus Exp Ratio	0.69
Phone Number	800-225-5677

Portfolio Ratings	
Mstar Rating	★★
3 Year Mstar Rating	★
% Rank Cat 3 Yr	92
5 Year Mstar Rating	★★
% Rank Cat 5 Yr	87
10 Year Mstar Rating	★★★★
% Rank Cat 10 Yr	33

Expense Ratio vs. Peer Group



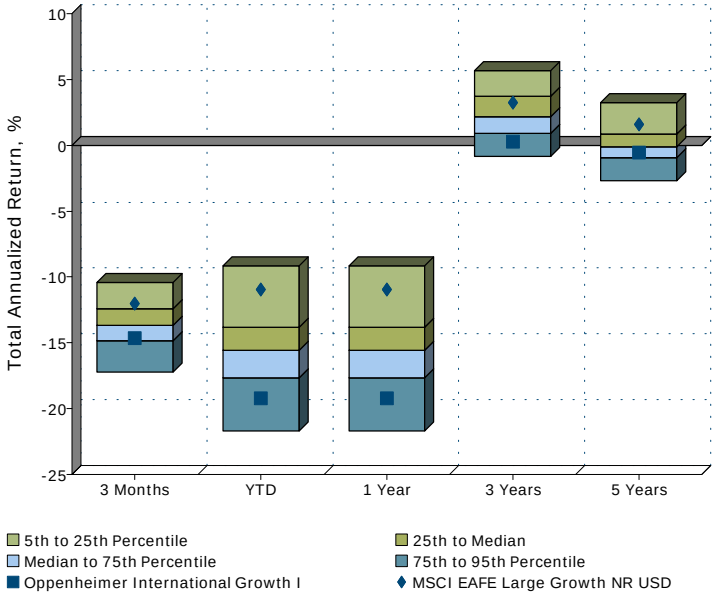
Turnover Ratio vs. Peer Group



Investment Strategy Summary

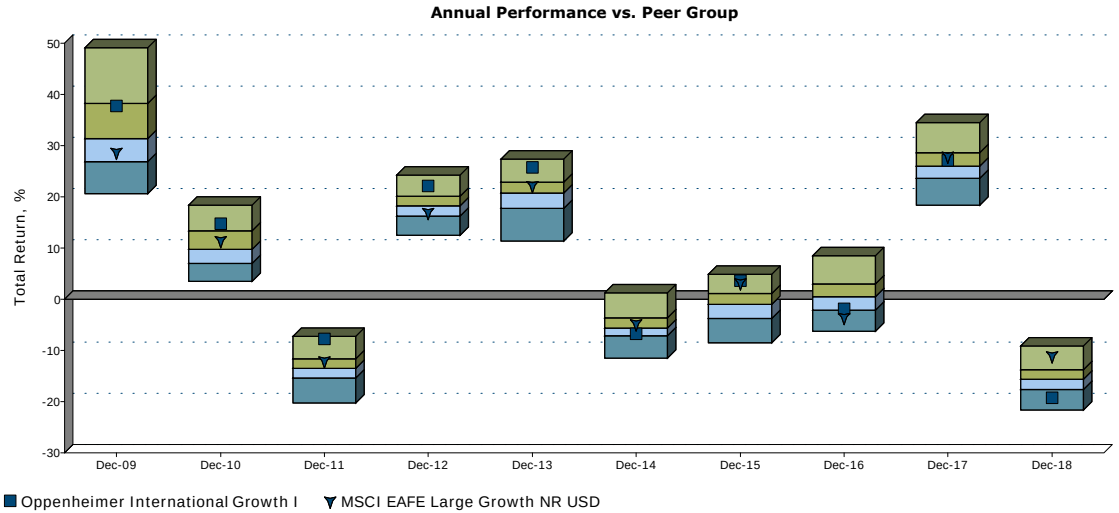
The investment seeks capital appreciation. The fund mainly invests in the common stock of growth companies that are domiciled or have their primary operations outside of the United States. It may invest 100% of its assets in securities of foreign companies. The fund may invest in emerging markets as well as in developed markets throughout the world. It normally will invest at least 65% of its total assets in common and preferred stocks of issuers in at least three different countries outside of the United States, and emphasize investments in common stocks of issuers that the portfolio managers consider to be "growth" companies.

Performance vs. Peer Group

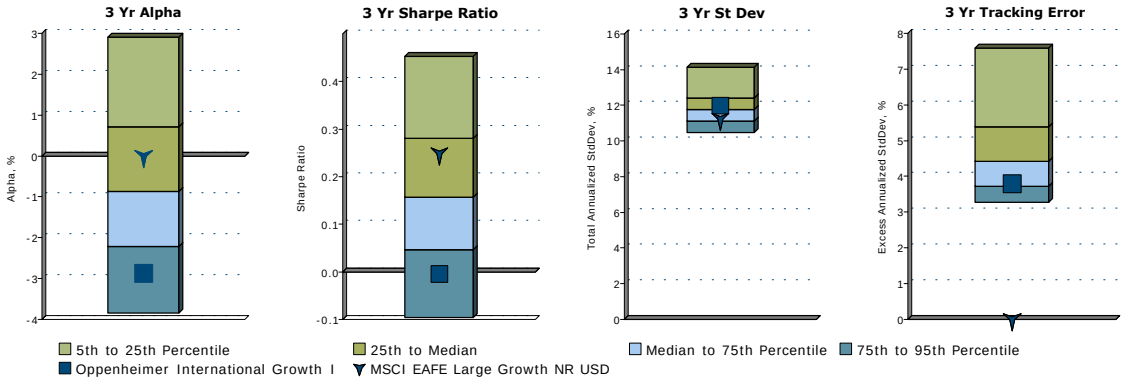


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Oppenheimer International Growth I	-14.63	-19.22	-19.22	0.26	-0.54
MSCI EAFE Large Growth NR USD	-12.00	-10.98	-10.98	3.22	1.60
Universe(5%)	-10.40	-9.14	-9.14	5.68	3.22
Universe(25%)	-12.41	-13.80	-13.80	3.73	0.85
Universe(Median)	-13.68	-15.57	-15.57	2.18	-0.12
Universe(75%)	-14.83	-17.66	-17.66	0.89	-0.91
Universe(95%)	-17.20	-21.68	-21.68	-0.84	-2.71

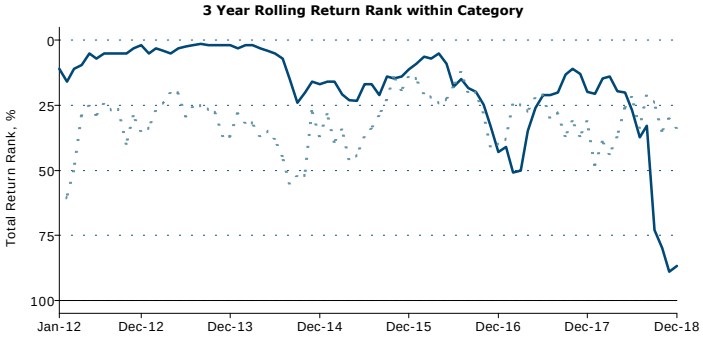
Oppenheimer International Growth I

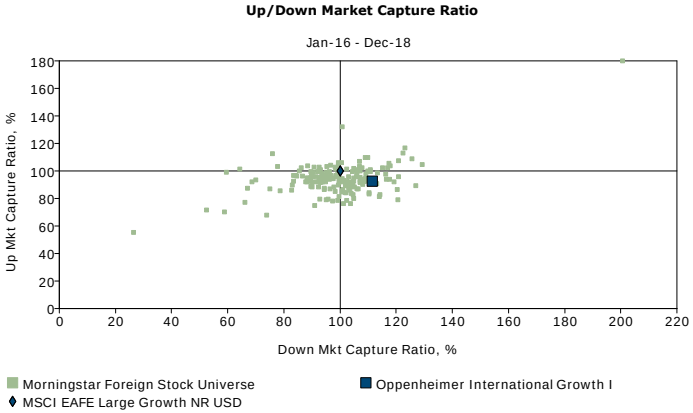


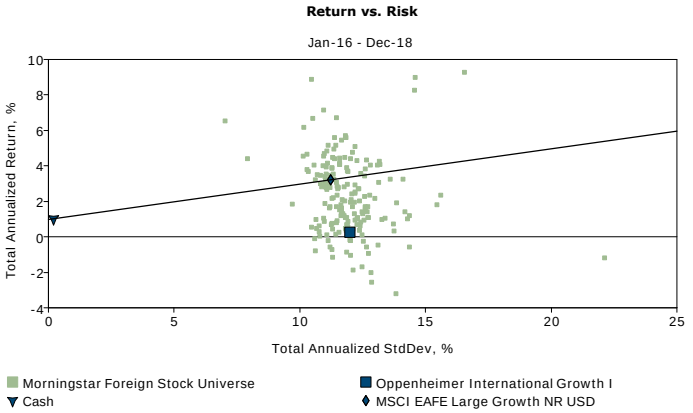
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Oppenheimer International Growth I	37.78	14.69	-7.71	22.12	25.71	-6.80	3.63	-1.88	27.15	-19.22
MSCI EAFE Large Growth NR USD	28.81	11.48	-12.04	17.06	22.28	-4.70	3.28	-3.47	27.97	-10.98



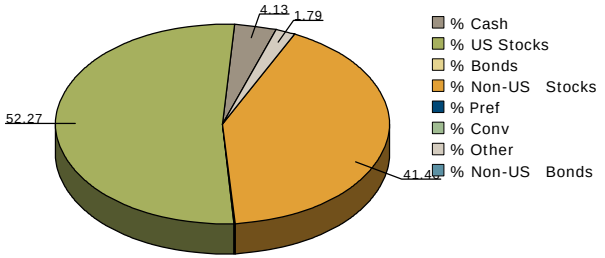
MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Oppenheimer International Growth I	-2.87	1.01	90.05	0.00	11.98	3.80	0.03
MSCI EAFE Large Growth NR USD	0.00	1.00	100.00	0.25	11.23	0.00	0.56
Universe(5%)	2.91	1.10	92.13	0.45	14.15	7.59	1.28
Universe(25%)	0.72	1.02	90.10	0.28	12.43	5.39	0.64
Universe(Median)	-0.87	0.96	86.81	0.16	11.76	4.42	0.33
Universe(75%)	-2.21	0.93	81.24	0.05	11.13	3.72	0.12
Universe(95%)	-3.84	0.84	66.77	-0.10	10.49	3.27	-0.10







American Funds New Perspective R6



Portfolio Region	
% United States	55.77
% Canada	1.64
% Latin America	1.98
% United Kingdom	6.48
% Eurozone	9.75
% Europe - ex Euro	6.07
% Europe - Emerging	0.00
% Africa	1.79
% Middle East	0.15
% Japan	5.86
% Australasia	0.31
% Asia - Developed	8.17
% Asia - Emerging	2.04

Portfolio Structure	
% Cash	4.13
% US Stocks	52.27
% Bonds	0.20
% Non-US Stocks	41.46
% Pref	0.10
% Conv	0.05
% Other	1.79
% Non-US Bonds	0.00

Sector Allocation	
% Basic Materials	6.47
% Communication Services	1.95
% Consumer Cyclical	18.29
% Consumer Defensive	8.58
% Healthcare	10.02
% Industrials	7.97
% Real Estate	0.23
% Technology	26.26
% Energy	4.46
% Financial Services	14.56
% Utilities	1.20

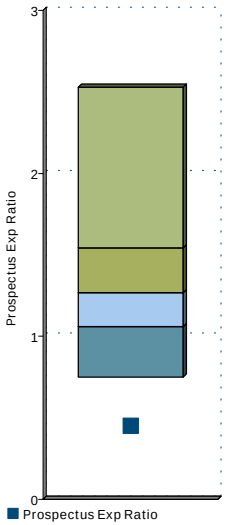
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
Amazon.com Inc	5.22%
Taiwan Semiconductor Manufacturing Co Ltd	2.24%
Facebook Inc A	2.14%
Microsoft Corp	2.12%
Broadcom Inc	1.64%
Mastercard Inc A	1.58%
JPMorgan Chase & Co	1.56%
Netflix Inc	1.49%
Naspers Ltd Class N	1.48%
Visa Inc Class A	1.42%

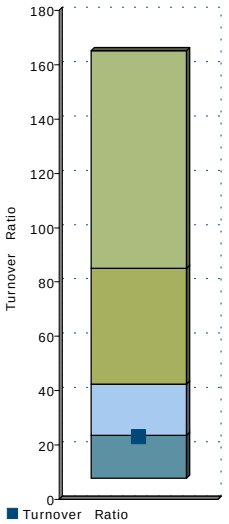
Portfolio Information	
Ticker	RNPGX
Morningstar Category	World Large Stock
Avg Mkt Cap $MM	75483.54
Cat Med Mkt Cap $MM	68988.37
Net Assets $MM	74415.00
Turnover Ratio	23.00
% Assets in Top 10 Holdings	20.91
Total Number of Holdings	340.00
Manager Name	Robert W. Lovelace
Manager Tenure	18.09
Fund Incept Date	03/13/1973
Prospectus Exp Ratio	0.45
Phone Number	800-421-4225

Portfolio Ratings	
Mstar Rating	★★★★
3 Year Mstar Rating	★★★★
% Rank Cat 3 Yr	19
5 Year Mstar Rating	★★★★
% Rank Cat 5 Yr	11
10 Year Mstar Rating	★★★★★
% Rank Cat 10 Yr	11

Expense Ratio vs. Peer Group



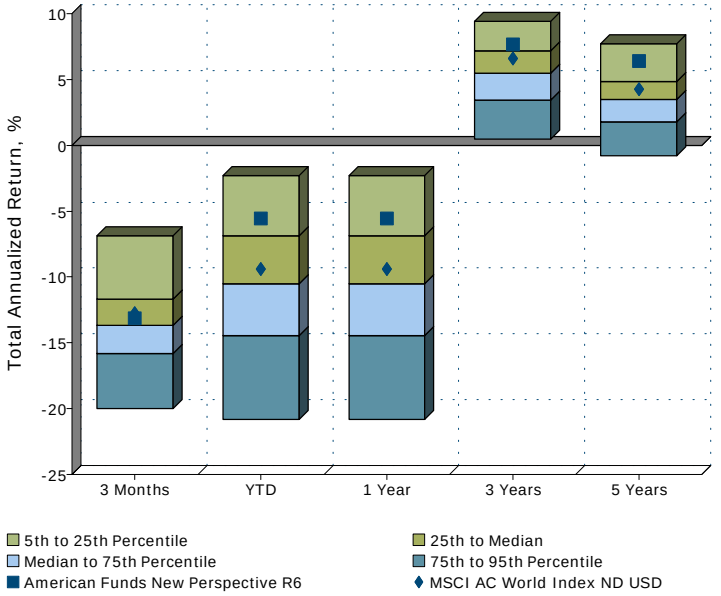
Turnover Ratio vs. Peer Group



Investment Strategy Summary

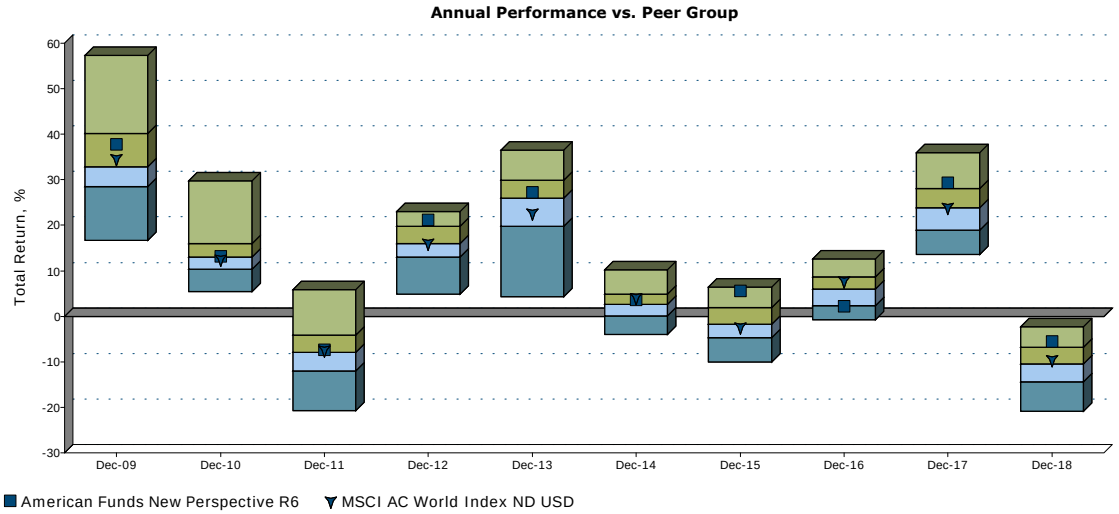
The investment seeks long-term growth of capital; future income is a secondary objective. The fund seeks to take advantage of investment opportunities generated by changes in international trade patterns and economic and political relationships by investing in common stocks of companies located around 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 vs. Peer Group

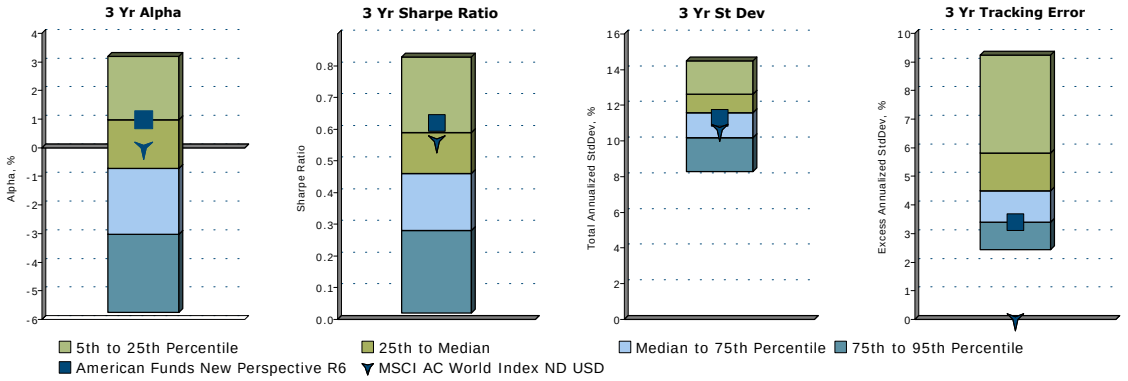


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
American Funds New Perspective R6	-13.15	-5.56	-5.56	7.66	6.42
MSCI AC World Index ND USD	-12.75	-9.42	-9.42	6.60	4.26
Universe(5%)	-6.85	-2.30	-2.30	9.44	7.73
Universe(25%)	-11.68	-6.87	-6.87	7.18	4.86
Universe(Median)	-13.65	-10.49	-10.49	5.47	3.51
Universe(75%)	-15.80	-14.46	-14.46	3.46	1.79
Universe(95%)	-20.00	-20.82	-20.82	0.45	-0.78

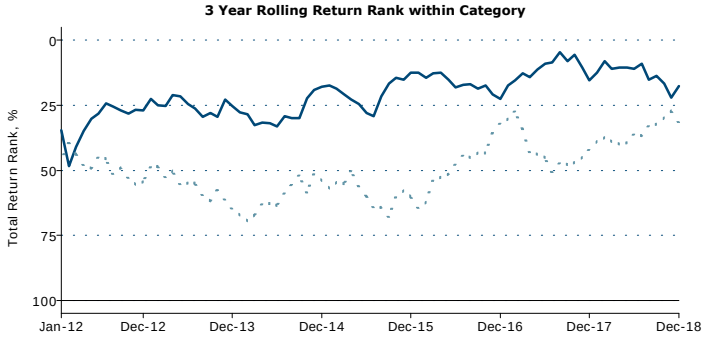
American Funds New Perspective R6

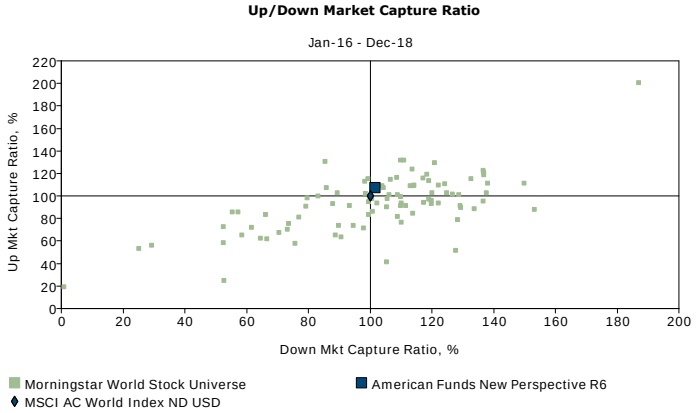


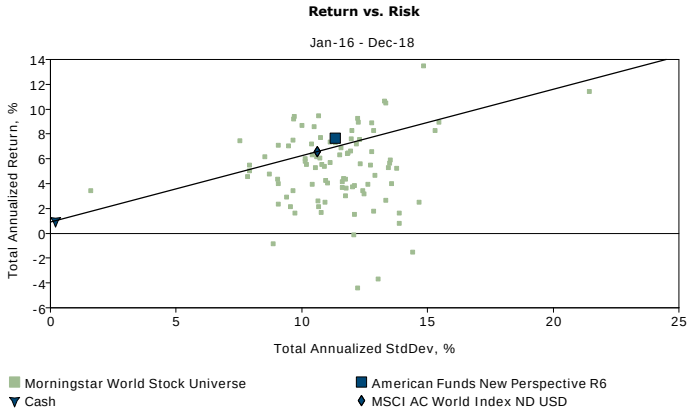
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
American Funds New Perspective R6	37.73	13.11	-7.33	21.19	27.23	3.56	5.63	2.19	29.30	-5.56
MSCI AC World Index ND USD	34.63	12.67	-7.35	16.13	22.80	4.16	-2.36	7.86	23.97	-9.42



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
American Funds New Perspective R6	0.98	1.02	91.04	0.62	11.32	3.40	1.86
MSCI AC World Index ND USD	0.00	1.00	100.00	0.56	10.62	0.00	1.62
Universe(5%)	3.20	1.20	94.88	0.83	14.51	9.24	3.04
Universe(25%)	0.99	1.10	90.64	0.59	12.62	5.82	1.72
Universe(Median)	-0.72	1.00	86.09	0.46	11.60	4.49	1.21
Universe(75%)	-3.02	0.89	78.13	0.28	10.19	3.40	0.62
Universe(95%)	-5.74	0.61	46.39	0.02	8.29	2.43	0.05



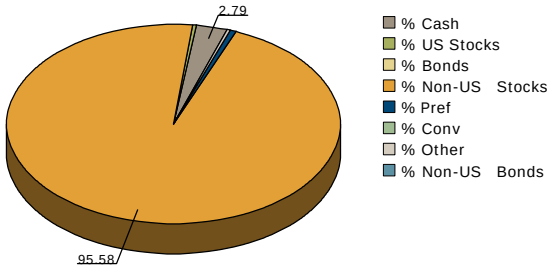




Milliman | Quarterly Investment Monitor

Data as of 12/31/2018

Vanguard Emerging Mkts Stock Idx Instl



Portfolio Region	
% United States	0.72
% Canada	0.01
% Latin America	12.94
% United Kingdom	0.16
% Eurozone	0.44
% Europe - ex Euro	0.01
% Europe - Emerging	4.80
% Africa	6.82
% Middle East	2.27
% Japan	0.00
% Australasia	0.02
% Asia - Developed	15.34
% Asia - Emerging	56.46

Portfolio Structure	
% Cash	2.79
% US Stocks	0.70
% Bonds	0.00
% Non-US Stocks	95.58
% Pref	0.63
% Conv	0.01
% Other	0.29
% Non-US Bonds	0.00

Sector Allocation	
% Basic Materials	8.16
% Communication Services	4.81
% Consumer Cyclical	11.55
% Consumer Defensive	6.66
% Healthcare	3.15
% Industrials	6.06
% Real Estate	4.44
% Technology	20.30
% Energy	7.56
% Financial Services	24.16
% Utilities	3.16

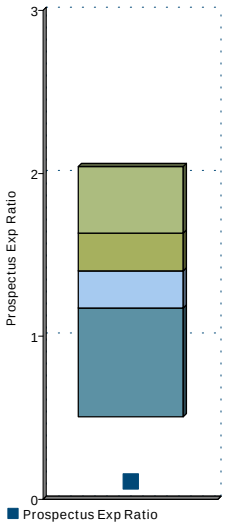
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
Tencent Holdings Ltd	4.49%
Alibaba Group Holding Ltd ADR	3.34%
Taiwan Semiconductor Manufacturing Co Ltd	2.15%
Naspers Ltd Class N	1.68%
China Construction Bank Corp H	1.50%
Taiwan Semiconductor Manufacturing Co Ltd ADR	1.40%
Industrial And Commercial Bank Of China Ltd H	1.10%
China Mobile Ltd	1.04%
Baidu Inc ADR	1.02%
Reliance Industries Ltd	1.02%

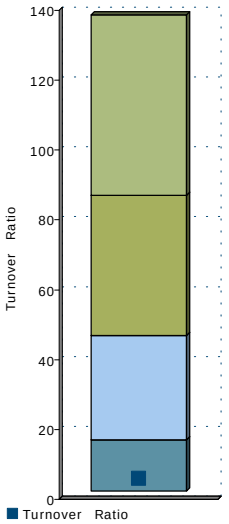
Portfolio Information	
Ticker	VEMIX
Morningstar Category	Diversified Emerging Mkts
Avg Mkt Cap $MM	18685.94
Cat Med Mkt Cap $MM	28791.48
Net Assets $MM	75602.00
Turnover Ratio	6.00
% Assets in Top 10 Holdings	18.74
Total Number of Holdings	4073.00
Manager Name	Michael Perre
Manager Tenure	10.35
Fund Incept Date	05/04/1994
Prospectus Exp Ratio	0.11
Phone Number	888-809-8102

Portfolio Ratings	
Mstar Rating	★★★
3 Year Mstar Rating	★★★
% Rank Cat 3 Yr	39
5 Year Mstar Rating	★★★
% Rank Cat 5 Yr	34
10 Year Mstar Rating	★★★
% Rank Cat 10 Yr	50

Expense Ratio vs. Peer Group



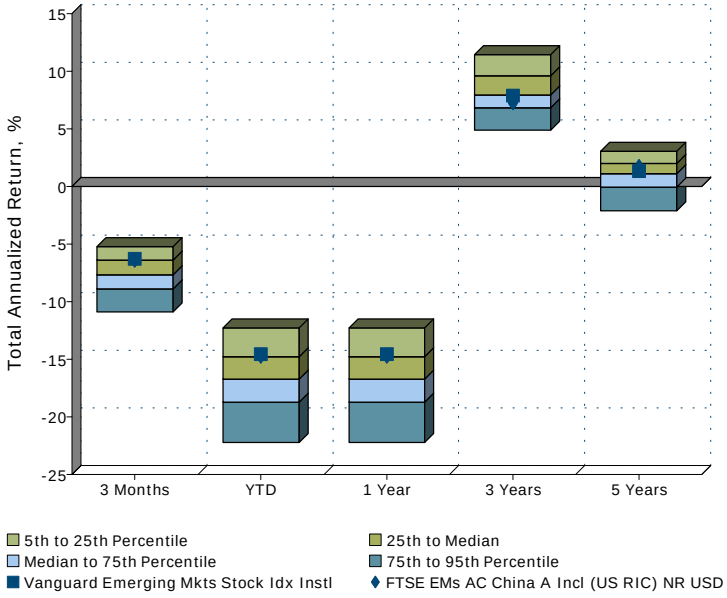
Turnover Ratio vs. Peer Group



Investment Strategy Summary

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, a market-capitalization-weighted index that is made up of approximately 4,032 common stocks of large-, mid-, and small-cap companies located in emerging markets around the world.

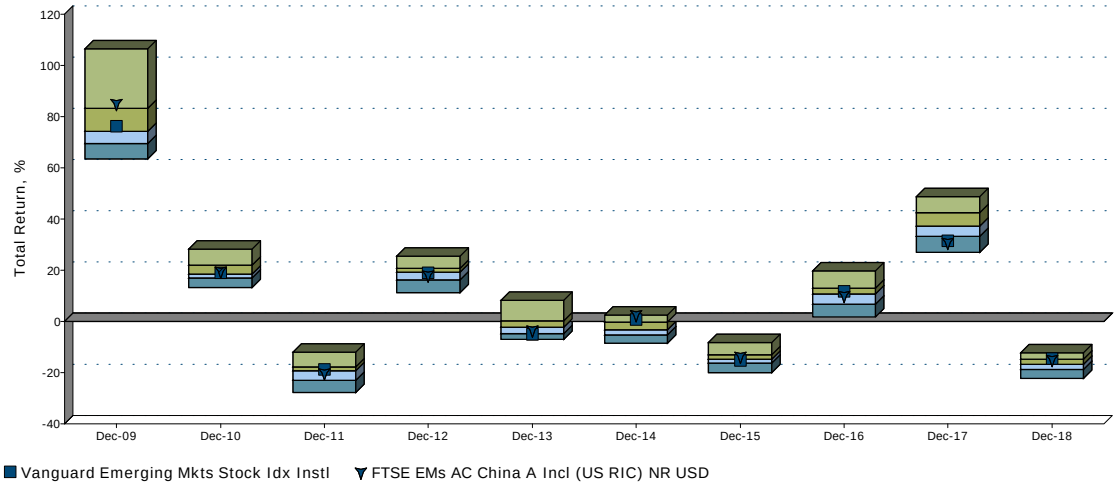
Performance vs. Peer Group



Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Vanguard Emerging Mkts Stock Idx Instl	-6.30	-14.54	-14.54	7.88	1.36
FTSE EMs AC China A Incl (US RIC) NR USD	-6.43	-14.77	-14.77	7.21	1.80
Universe(5%)	-5.23	-12.25	-12.25	11.45	3.07
Universe(25%)	-6.41	-14.78	-14.78	9.64	1.98
Universe(Median)	-7.65	-16.71	-16.71	7.96	1.14
Universe(75%)	-8.90	-18.72	-18.72	6.82	-0.03
Universe(95%)	-10.87	-22.21	-22.21	4.88	-2.14

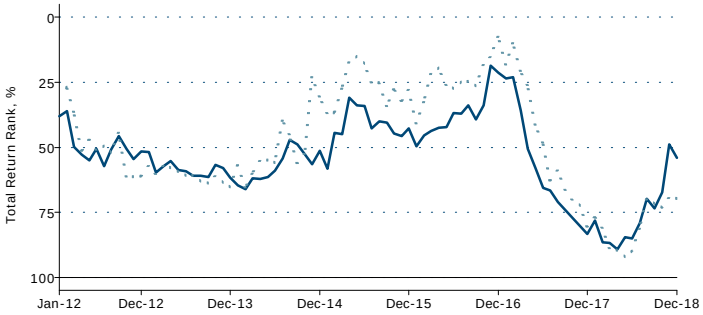
Vanguard Emerging Mkts Stock Idx Instl

Annual Performance vs. Peer Group



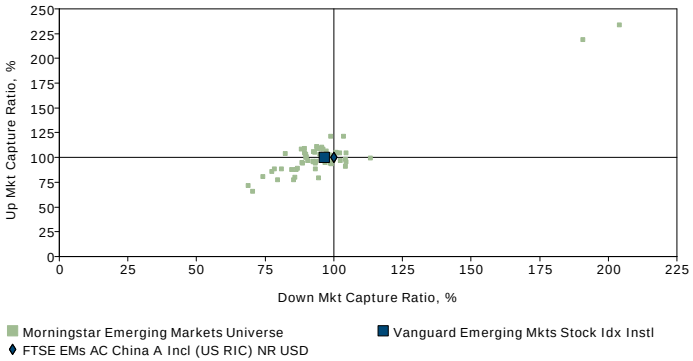
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vanguard Emerging Mkts Stock Idx Instl	76.35	19.06	-18.63	18.91	-4.99	0.67	-15.34	11.76	31.43	-14.54
FTSE EMs AC China A Incl (US RIC) NR USD	85.17	19.81	-19.99	18.14	-3.17	2.64	-13.55	10.30	31.06	-14.77

3 Year Rolling Return Rank within Category

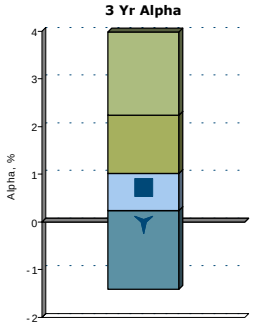


Up/Down Market Capture Ratio

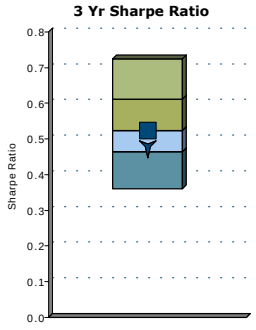
Jan-16 - Dec-18



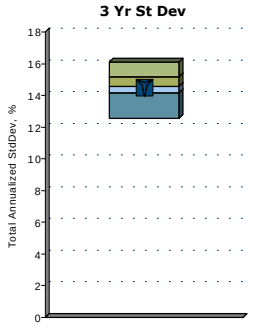
3 Yr Alpha



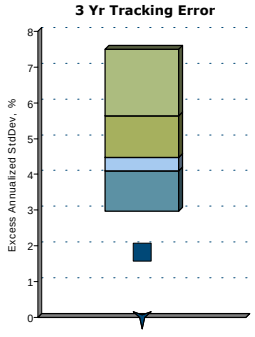
3 Yr Sharpe Ratio



3 Yr St Dev



3 Yr Tracking Error



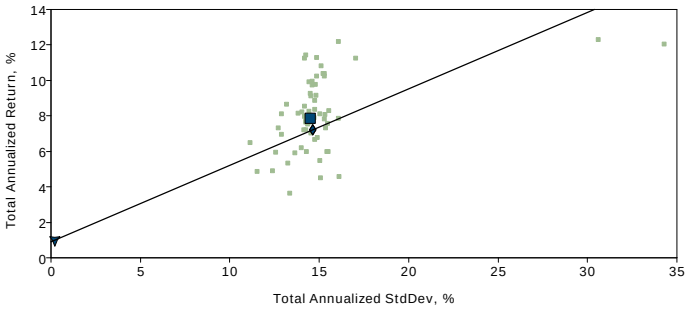
5th to 25th Percentile | 25th to Median | Median to 75th Percentile | 75th to 95th Percentile

Vanguard Emerging Mkts Stock Idx Instl | FTSE EMs AC China A Incl (US RIC) NR USD

MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Vanguard Emerging Mkts Stock Idx Instl	0.72	0.98	98.45	0.52	14.49	1.83	1.39
FTSE EMs AC China A Incl (US RIC) NR USD	0.00	1.00	100.00	0.48	14.63	0.00	1.20
Universe(5%)	3.98	1.07	95.92	0.72	16.10	7.51	2.34
Universe(25%)	2.23	0.99	92.88	0.61	15.19	5.63	1.76
Universe(Median)	1.02	0.96	91.29	0.52	14.57	4.47	1.36
Universe(75%)	0.25	0.91	86.59	0.46	14.16	4.10	1.08
Universe(95%)	-1.42	0.77	81.10	0.36	12.57	2.97	0.80

Return vs. Risk

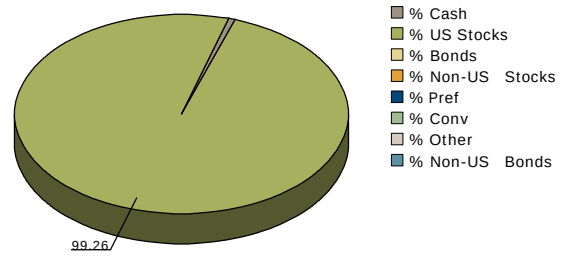
Jan-16 - Dec-18



Milliman | Quarterly Investment Monitor

Data as of 12/31/2018

Vanguard Real Estate Index Institutional



Portfolio Region	
% United States	99.96
% Canada	0.04
% Latin America	0.00
% United Kingdom	0.00
% Eurozone	0.00
% Europe - ex Euro	0.00
% Europe - Emerging	0.00
% Africa	0.00
% Middle East	0.00
% Japan	0.00
% Australasia	0.00
% Asia - Developed	0.00
% Asia - Emerging	0.00

Portfolio Structure	
% Cash	0.71
% US Stocks	99.26
% Bonds	0.00
% Non-US Stocks	0.03
% Pref	0.00
% Conv	0.00
% Other	0.00
% Non-US Bonds	0.00

Sector Allocation	
% Basic Materials	2.25
% Communication Services	8.56
% Consumer Cyclical	0.00
% Consumer Defensive	0.00
% Healthcare	0.00
% Industrials	0.88
% Real Estate	88.30
% Technology	0.00
% Energy	0.00
% Financial Services	0.00
% Utilities	0.00

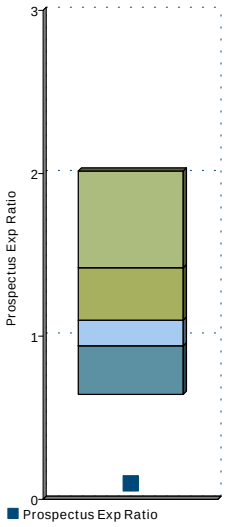
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
Vanguard Real Estate II Index	11.02%
American Tower Corp	5.94%
Simon Property Group Inc	4.70%
Crown Castle International Corp	3.90%
Prologis Inc	3.47%
Public Storage	2.74%
Equinix Inc	2.51%
Welltower Inc	2.20%
AvalonBay Communities Inc	2.16%
Equity Residential	2.15%

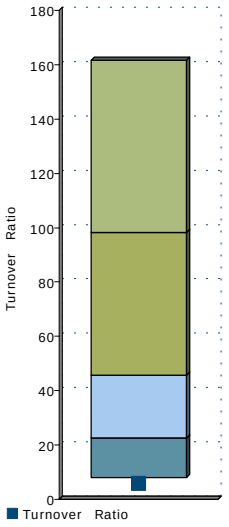
Portfolio Information	
Ticker	VGSNX
Morningstar Category	Real Estate
Avg Mkt Cap $MM	13091.92
Cat Med Mkt Cap $MM	15811.41
Net Assets $MM	53271.00
Turnover Ratio	6.00
% Assets in Top 10 Holdings	40.78
Total Number of Holdings	193.00
Manager Name	Gerard C. O'Reilly
Manager Tenure	22.65
Fund Incept Date	05/13/1996
Prospectus Exp Ratio	0.10
Phone Number	888-809-8102

Portfolio Ratings	
Mstar Rating	★★★
3 Year Mstar Rating	★★★
% Rank Cat 3 Yr	46
5 Year Mstar Rating	★★★
% Rank Cat 5 Yr	43
10 Year Mstar Rating	★★★
% Rank Cat 10 Yr	26

Expense Ratio vs. Peer Group



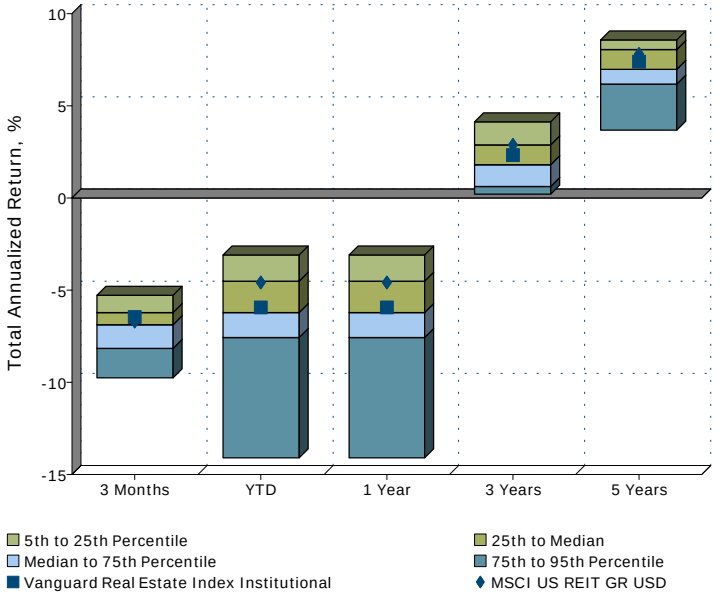
Turnover Ratio vs. Peer Group



Investment Strategy Summary

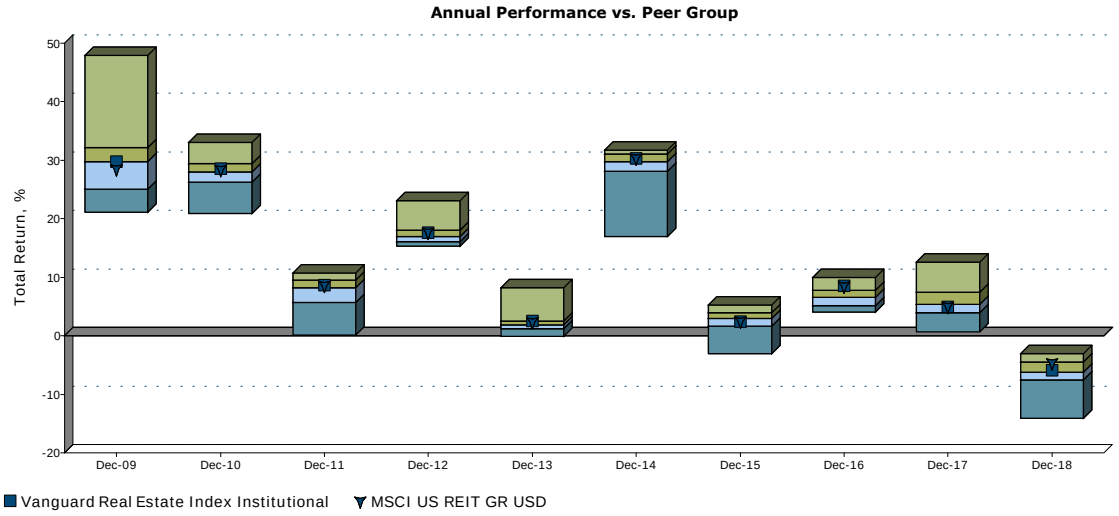
The investment seeks to provide a high level of income and moderate long-term capital appreciation by tracking the performance of the MSCI US Investable Market Real Estate 25/50 Index that measures the performance of publicly traded equity REITs and other real estate-related investments. The advisor 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 vs. Peer Group

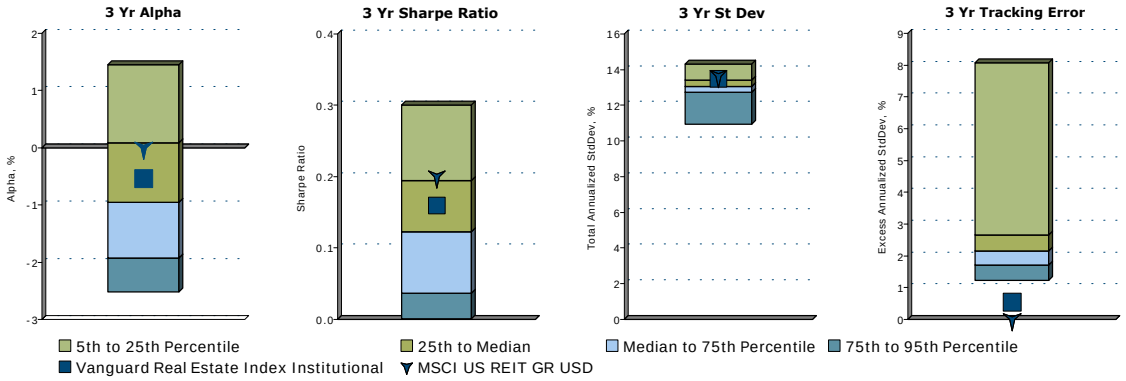


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Vanguard Real Estate Index Institutional	-6.46	-5.93	-5.93	2.31	7.41
MSCI US REIT GR USD	-6.72	-4.57	-4.57	2.88	7.80
Universe(5%)	-5.28	-3.10	-3.10	4.13	8.57
Universe(25%)	-6.22	-4.51	-4.51	2.88	8.05
Universe(Median)	-6.89	-6.23	-6.23	1.80	6.98
Universe(75%)	-8.17	-7.57	-7.57	0.63	6.19
Universe(95%)	-9.75	-14.11	-14.11	0.22	3.70

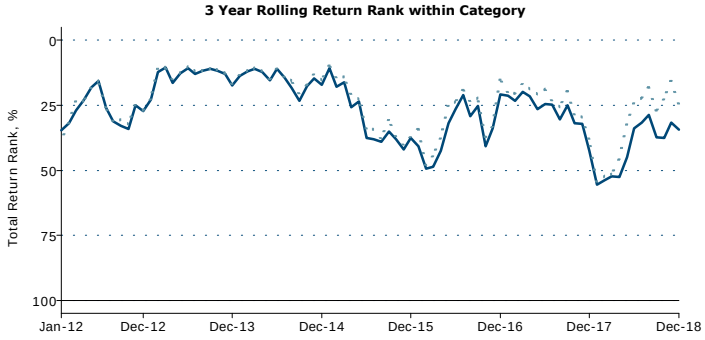
Vanguard Real Estate Index Institutional

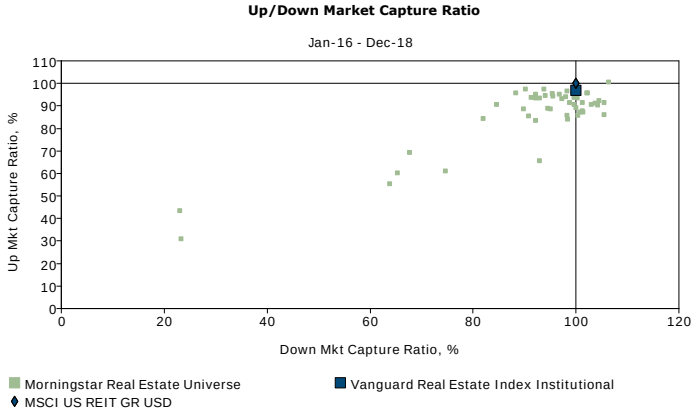


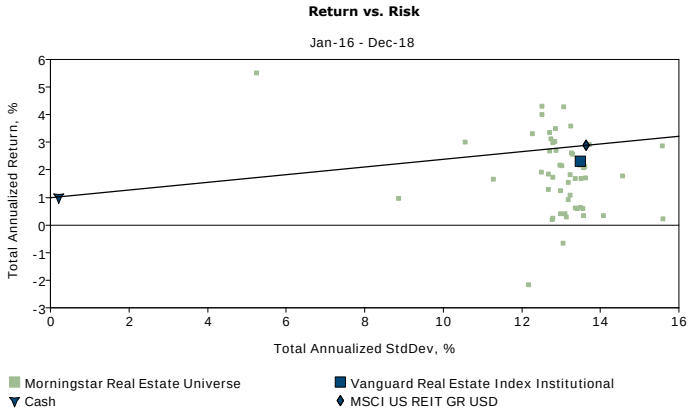
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vanguard Real Estate Index Institutional	29.76	28.56	8.70	17.65	2.48	30.28	2.45	8.51	4.93	-5.93
MSCI US REIT GR USD	28.61	28.48	8.69	17.77	2.47	30.38	2.52	8.60	5.07	-4.57



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Vanguard Real Estate Index Institutional	-0.54	0.99	99.85	0.16	13.49	0.54	0.31
MSCI US REIT GR USD	0.00	1.00	100.00	0.20	13.64	0.00	0.40
Universe(5%)	1.46	0.99	99.30	0.30	14.30	8.07	0.67
Universe(25%)	0.09	0.97	98.58	0.19	13.42	2.65	0.40
Universe(Median)	-0.95	0.94	97.74	0.12	13.06	2.16	0.25
Universe(75%)	-1.93	0.92	96.37	0.04	12.73	1.71	0.08
Universe(95%)	-2.52	0.65	72.79	0.00	10.96	1.23	0.02







Glossary

Alpha (3 Yr)

Alpha is a measure of the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by beta. A positive alpha figure indicates the portfolio has performed better than its beta would predict. In contrast, a negative alpha indicates the portfolio has underperformed, given the expectations established by beta.

Average Effective Duration

A measure of a fund's interest-rate sensitivity--the longer a fund's duration, the more sensitive the fund is to shifts in interest rates. Duration is determined by a formula that includes coupon rates and bond maturities. Small coupons tend to increase duration, while shorter maturities and higher coupons shorten duration. The relationship between funds with different durations is straightforward: A fund with a duration of 10 years is twice as volatile as a fund with a five-year duration. Morningstar prints an average effective duration statistic that incorporates call, put, and prepayment possibilities.

Average Effective Maturity

Average effective maturity is a weighted average of all the effective maturities of the bonds in a portfolio. Effective maturity takes into consideration mortgage prepayments, puts, calls, adjustable coupons, and other features of individual bonds and is thus a more accurate measure of interest-rate sensitivity. Longer-maturity funds are generally considered more interest-rate sensitive than their shorter counterparts.

Beta

A measure of a fund's sensitivity to market movements. The beta of the market is 1.00 by definition. Morningstar calculates beta by comparing a fund's excess return over Treasury bills to the market's excess return over Treasury bills, so a beta of 1.10 shows that the fund has performed 10% better than its benchmark index in up markets and 10% worse in down markets, assuming all other factors remain constant. Conversely, a beta of 0.85 indicates that the fund's excess return is expected to perform 15% worse than the market's excess return during up markets and 15% better during down markets.

The Morningstar Rating

Commonly called the Star Rating, is a measure of a fund's risk-adjusted return, relative to funds in its category. Funds are rated from one to five stars, with the best performers receiving five stars and the worst performers receiving a single star.

Risk-adjusted return is calculated by subtracting a risk penalty from each fund total return, after accounting for all loads, sales charges, and redemption fees. The risk penalty is determined by the amount of variation in the fund's monthly return, with emphasis on downward variation. The greater the variation, the larger the penalty. Funds are ranked within their categories and stars are assigned as follows: Top 10% five stars; Next 22.5% four stars; Middle 35% three stars; Next 22.5% two stars; Bottom 10% one star.

Audited Expense Ratio

The percentage of fund assets paid for operating expenses and management fees, including 12b-1 fees, administrative fees, and all other asset-based costs incurred by the fund, except brokerage costs. Fund expenses are reflected in the fund's NAV . Sales charges are not included in the expense ratio.

Geometric Average Market Capitalization

Morningstar defines the overall "size" of a stock fund's portfolio as the geometric mean of the market capitalization for all of the stocks it owns. It's calculated by raising the market capitalization of each stock to a power equal to that stock's stake in the portfolio. The resulting numbers are multiplied together to produce the geometric mean of the market caps of the stocks in the portfolio, which is reported as average market capitalization.
This number is different from the fund's median market cap--the capitalization of the median stock in its portfolio. The geometric mean better identifies the portfolio's "center of gravity." That is, it provides more accurate insight into how market trends (as defined by capitalization) might affect the portfolio.

Net Assets

The month-end net assets of the mutual fund, recorded in millions of dollars. Net-asset figures are useful in gauging a fund's size, agility, and popularity. They help determine whether a small company fund, for example, can remain in its investment-objective category if its asset base reaches an ungainly size.

% Assets in Top 10 Holdings

The aggregate assets, expressed as a percentage, of the fund's top 10 portfolio holdings. This figure is meant to be a measure of portfolio risk. Specifically, the higher the percentage, the more concentrated the fund is in a few companies or issues, and the more the fund is susceptible to the market fluctuations in these few holdings. The figure is calculated from the most recent available fund holdings.

Price/Book Ratio TTM

The weighted average of the price/book ratios of all the stocks in a fund's portfolio. The P/B ratio of a company is calculated by dividing the market price of its stock by the company's per-share book value. Stocks with negative book values are excluded from this calculation. In theory, a high P/B ratio indicates that the price of the stock exceeds the actual worth of the company's assets, while a low P/B ratio indicates that the stock is a bargain.

Price/Earnings Ratio TTM

The weighted average of the price/earnings ratios of the stocks in a fund's portfolio. The P/E ratio of a stock is calculated by dividing the current price of the stock by its trailing 12 months' earnings per share. In computing the average, Morningstar weights each portfolio holding by the percentage of equity assets it represents, so that larger positions have proportionately greater influence on the fund's final P/E.

R-Squared

Reflects the percentage of a fund's movements that can be explained by movements in its benchmark index. An R-squared of 100 indicates that all movements of a fund can be explained by movements in the index. Thus, index funds that invest only in S&P 500 stocks will have an R-squared very close to 100. Conversely, a low R-squared indicates that very few of the fund's movements can be explained by movements in its benchmark index. An R-squared measure of 35, for example, means that only 35% of the fund's movements can be explained by movements in the benchmark index.

Sharpe Ratio

The Sharpe Ratio is a risk-adjusted measure developed by Nobel Laureate William Sharpe. It is calculated by using standard deviation and excess return to determine reward per unit of risk. The higher the Sharpe Ratio, the better the portfolio's historical risk-adjusted performance. It can be used to compare two portfolios directly on how much excess return each portfolio achieved for a certain level of risk.

Standard Deviation

Standard deviation is the statistical measurement of dispersion about an average, which depicts how widely a stock or portfolio's returns varied over a certain period of time. Investors use the standard deviation of historical performance to try to predict the range of returns that is most likely for a given investment. When a stock or portfolio has a high standard deviation, the predicted range of performance is wide, implying greater volatility.

Total Number of Holdings

The total number of different holdings of a fund. This figure is meant to be a measure of portfolio risk. Specifically, the lower the figure, the more concentrated the fund is in a few companies or issues, and the more the fund is susceptible to the market fluctuations in these few holdings. This figure also provides a context for the importance of % assets in top 10 holdings. The figure is calculated from the most recent available fund holdings. It does not include a fund's short positions.

Total Return

Expressed in percentage terms, Morningstar's calculation of total return is determined each month by taking the change in monthly net asset value, reinvesting all income and capital-gains distributions during that month, and dividing by the starting NAV. Reinvestments are made using the actual reinvestment NAV, and daily payoffs are reinvested monthly.

Turnover Ratio

This is a measure of the fund's trading activity which is computed by taking the lesser of purchases or sales (excluding all securities with maturities of less than one year) and dividing by average monthly net assets. A turnover ratio of 100% or more does not necessarily suggest that all securities in the portfolio have been traded. In practical terms, the resulting percentage loosely represents the percentage of the portfolio's holdings that have changed over the past year.

12-Month Yield

Also known as a distribution yield, Morningstar computes this figure by summing the trailing 12-month's income distributions and dividing the sum by the last month's ending NAV, plus any capital gains distributed over the same period. Income refers only to interest payments from fixed-income securities and dividend payoffs from common stocks.

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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 $31.7 million in assets, down from $34.7 million at the beginning of the quarter. During the quarter, the plan had no contributions, no withdrawals/payments, and fees of approximately $2.6 thousand.

b. Total performance of the plan portfolio was (8.84%) net ((8.77%) gross) for the quarter, beating the Plan's benchmark index performance of (9.01%). For the year, the plan return was (6.62%) net, (6.35%) gross, in line with the benchmark performance of (6.55%).

City of Dover
OPEB Trust
Quarterly Return Summary

Month End	BMV	Contribution	Withdrawls	Fees	Gain	EMV	OPEB-NET RETURN	OPEB-GROSS RETURN
1/31/2018	$ 31,892,669.19	$ 915,000.00	$ -	$ 2,344.24	$ 922,585.14	$ 33,727,910.09	2.82%	2.85%
2/28/2018	$ 33,727,910.09	$ -	$ -	$ -	$ (1,131,080.23)	$ 32,596,829.86	-3.35%	-3.33%
3/31/2018	$ 32,596,829.86	$ 510,000.00	$ -	$ -	$ (124,112.70)	$ 32,982,717.16	-0.38%	-0.35%
4/30/2018	$ 32,982,717.16	$ -	$ -	$ 2,422.86	$ (27,263.15)	$ 32,953,031.15	-0.08%	-0.06%
5/31/2018	$ 32,953,031.15	$ -	$ -	$ -	$ 466,646.94	$ 33,419,678.09	1.42%	1.44%
6/30/2018	$ 33,419,678.09	$ 590,000.00	$ -	$ -	$ 27,109.21	$ 34,036,787.30	0.08%	0.10%
7/31/2018	$ 34,036,787.30	$ -	$ -	$ 2,500.44	$ 605,445.50	$ 34,639,732.36	1.78%	1.80%
8/31/2018	$ 34,639,732.36	$ -	$ -	$ -	$ 361,742.20	$ 35,001,474.56	1.04%	1.07%
9/30/2018	$ 35,001,474.56	$ -	$ -	$ -	$ (275,512.37)	$ 34,725,962.19	-0.79%	-0.76%
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%
		$ -	$ -	$ 2,552.18	$ (3,069,193.87)	Quarterly Return	-8.84%	-8.77%
		$ 2,015,000.00	$ -	$ 9,819.72	$ (2,243,633.33)	One Year Return	-6.62%	-6.35%

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	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	7.00%	9-19%; target 14% FOR
Emerging Markets	EMG	Vanguard Emerging Mkts	12.00%	7-17%; target 12% Emg Mkts

d. No changes were made to the allocation or fund lineup during the quarter.

e. The majority of plan investments have performance and rankings generally in line with their peer groups and benchmarks, as well as risk analytics that rank well to their peer groups. There are no recommended changes or adjustments to the current fund managers at this time.

i. PGIM QMA Small Cap Value
- During 2018, the fund trailed its benchmark by 596 bps, causing longer term returns to decline.
- Return rank versus peers is still within top ½ of small cap value funds for three and 5-yr periods.
- Risk-adjusted measures remain around peer group median over all time periods.
- Recommendation: Begin to monitor fund for improvements in performance.

ii. Oppenheimer International Growth
- We continue to see underperformance with this fund. The fund trailed its benchmark by 263 bps for the quarter and 824 bps over 1 year.
- Return rank versus peers has declined to the bottom quartile over 1 and 3 years, bottom 50% over 5 years.
- Risk-adjusted measures alpha and Sharpe have declined to the bottom quartile over 3 years and bottom half over 5 years.
- Recommendation: Continue to monitor the fund (since Nov 2018).
-

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

Summary Report for the Quarter Ending December 31, 2018

Prepared for
City of Dover, Delaware Other Postemployment Benefit (OPEB) GASB 45

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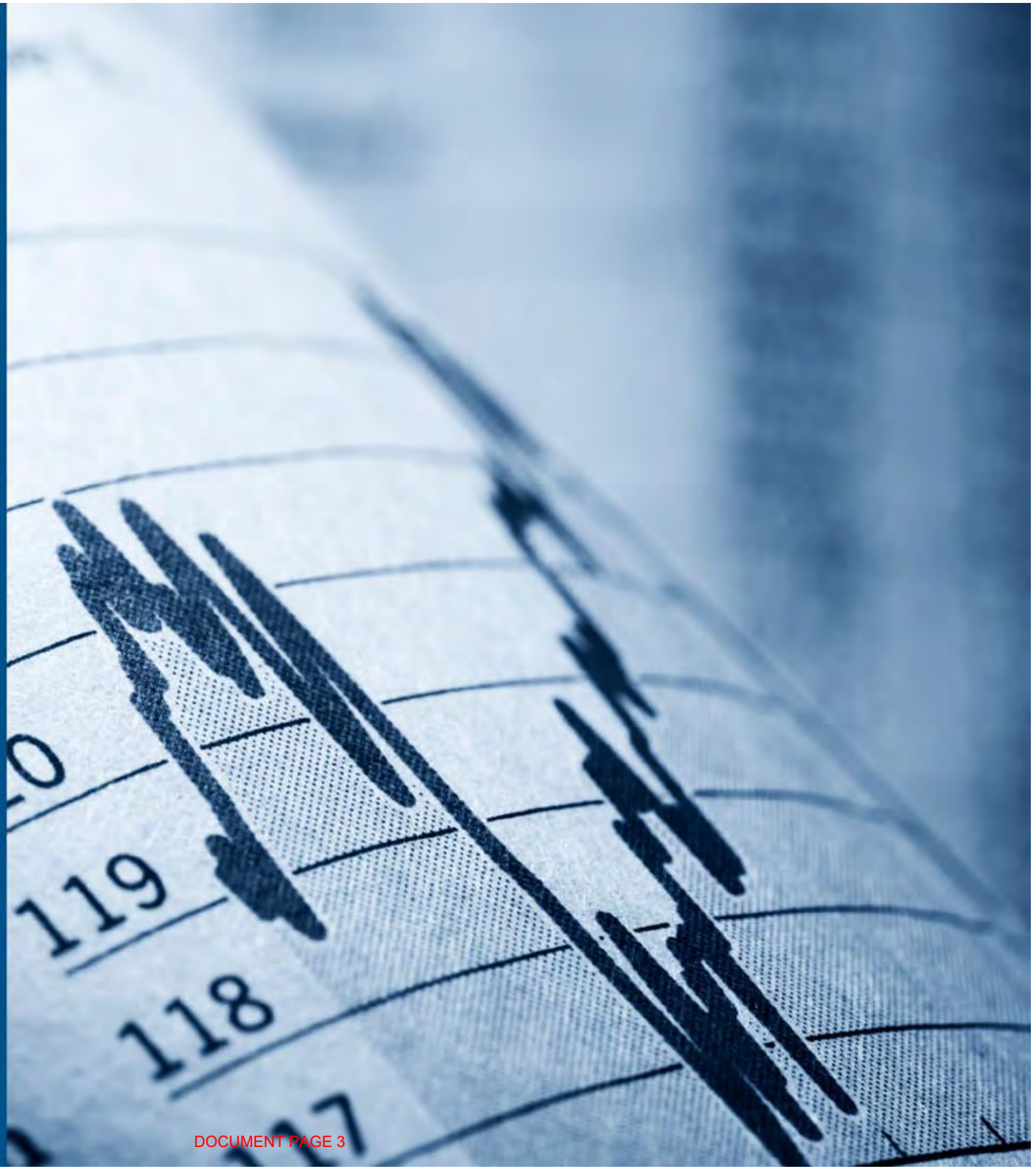

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Section C: Core Fund Review

Section D: Glossary

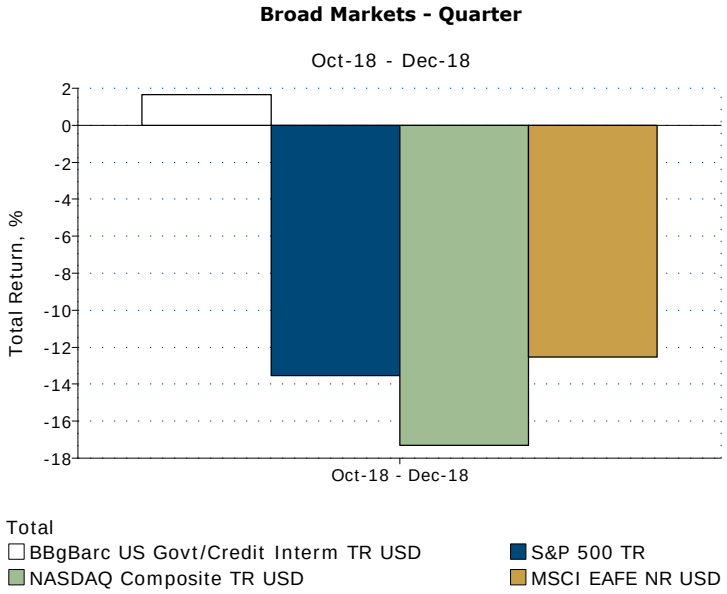
Milliman | Quarterly Investment Monitor

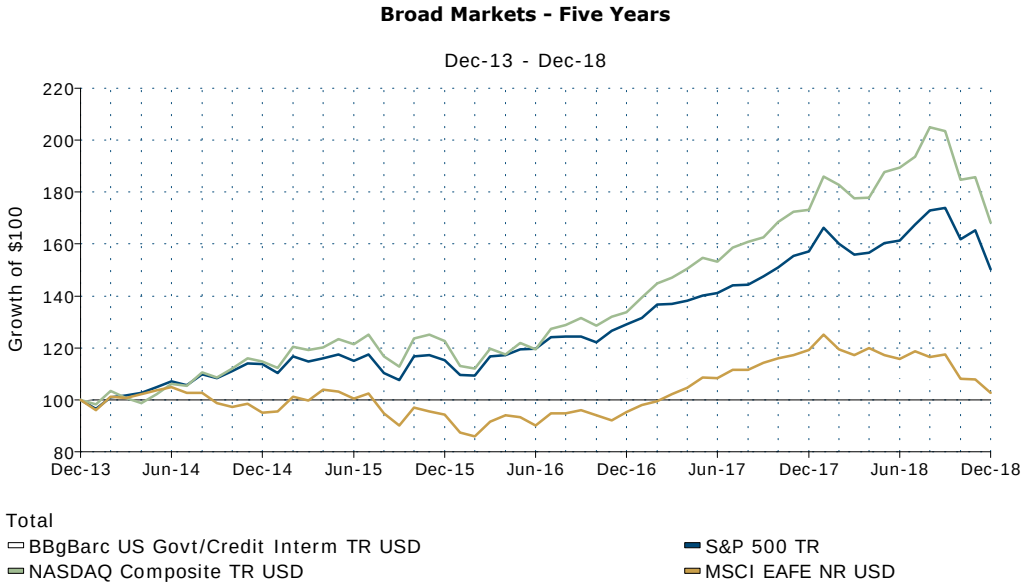
Market Indices - 4th Quarter 2018

Index	YTD	3 Months	6 Months	1 Year	3 Years	5 Years	10 Years
BofAML US Treasury Bill 3 Mon	1.87	0.56	1.06	1.87	1.02	0.63	0.37
BBgBarc US Govt 1-3 Yr TR USD	1.58	1.31	1.51	1.58	0.96	0.82	1.03
BBgBarc US Govt/Credit 1-3 Yr TR USD	1.60	1.18	1.52	1.60	1.24	1.03	1.52
BBgBarc US Treasury US TIPS TR USD	-1.26	-0.42	-1.24	-1.26	2.11	1.69	3.64
BBgBarc US Agg Float Adj TR USD	-0.08	1.58	1.62	-0.08	2.09	2.50	NA
BBgBarc US Govt/Credit Interm TR USD	0.88	1.65	1.87	0.88	1.70	1.86	2.90
BBgBarc US Government Long TR USD	-1.79	4.16	1.22	-1.79	2.63	5.90	4.15
BBgBarc US Long Credit TR USD	-6.76	-1.64	-0.40	-6.76	4.87	5.08	7.40
BBgBarc US Govt/Credit Long TR USD	-4.68	0.78	0.31	-4.68	4.03	5.37	5.88
BBgBarc US Corporate High Yield TR USD	-2.08	-4.53	-2.24	-2.08	7.23	3.83	11.12
DJ Industrial Average TR USD	-3.48	-11.31	-2.77	-3.48	12.94	9.70	13.16
S&P 500 TR	-4.38	-13.52	-6.85	-4.38	9.26	8.49	13.12
NASDAQ Composite TR USD	-2.84	-17.29	-11.16	-2.84	11.10	10.97	16.76
Russell 1000 Value TR USD	-8.27	-11.72	-6.69	-8.27	6.95	5.95	11.18
Russell 1000 TR USD	-4.78	-13.82	-7.42	-4.78	9.09	8.21	13.28
Russell 1000 Growth TR USD	-1.51	-15.89	-8.17	-1.51	11.15	10.40	15.29
Russell 2000 Value TR USD	-12.86	-18.67	-17.36	-12.86	7.37	3.61	10.40
Russell 2000 TR USD	-11.01	-20.20	-17.35	-11.01	7.36	4.41	11.97
Russell 2000 Growth TR USD	-9.31	-21.65	-17.33	-9.31	7.24	5.13	13.52
MSCI EAFE NR USD	-13.79	-12.54	-11.35	-13.79	2.87	0.53	6.32
MSCI EAFE Small Cap NR USD	-17.89	-16.05	-16.79	-17.89	3.73	3.06	10.51
MSCI EM NR USD	-14.58	-7.47	-8.49	-14.58	9.25	1.65	8.02
FTSE NAREIT All REITs TR	-4.10	-6.11	-5.15	-4.10	4.62	8.29	12.41

Milliman | Quarterly Investment Monitor

Broad Market Commentary - 4th Quarter 2018





Market Commentary

- Market volatility rose during the quarter amid a tightening US monetary policy and uncertainties in international markets.
- U.S. stocks ended the fourth quarter with the Dow down (11.31%) and the S&P 500 down (13.52%). For the year, the Down and S& P 500 are down (3.48%) and (4.38%), respectively.
- International markets declined sharply as trade war tensions continued into the fourth quarter. The MSCI EAFE, MSCI EAFE Small Cap and the MSCI EM finished the quarter down (12.54%).
- The Federal Reserve adjusted the benchmark rate again to a target of 2.25-2.50%, it was the fourth adjustment for the year. The Fed indicated that they may slow the pace of future adjustments in 2019 based on their assessment of economic conditions.
- Unemployment rose slightly to 3.9% 419,000 workers entered the workforce.
- The price of oil dropped steeply from $76, its high for the year, to $45 a barrel during the quarter.

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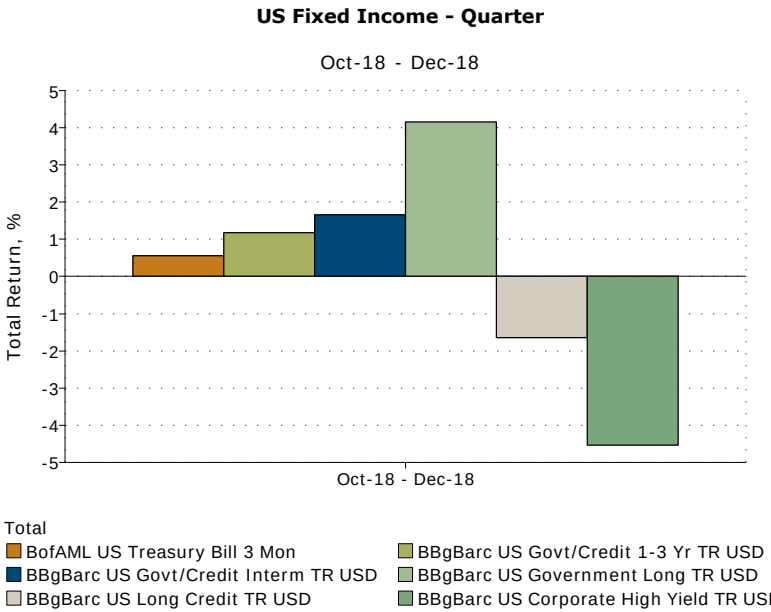
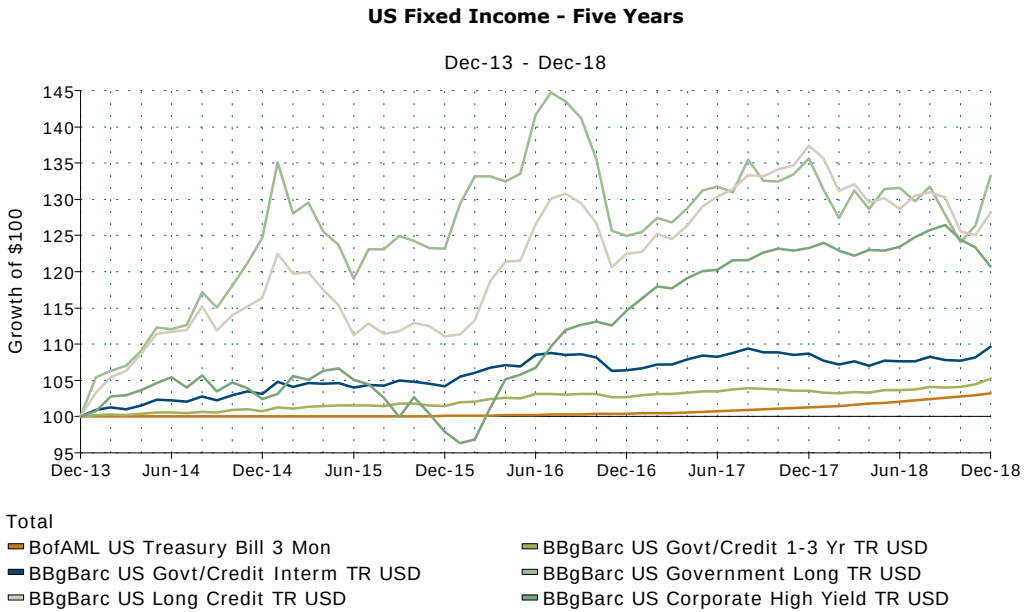
US Fixed Income Market Commentary - 4th Quarter 2018





US Bond Market

- The Fed adjusted the benchmark rate again to a target of 2.25-2.50%.
- The yield curve continued to flattened over the quarter. By the end of the quarter, the yield on 30-year treasuries was less than 60 basis ponts higher than the yield on the 1-month treasury.
- Core PCE remained level at the Fed's 2% target.
- Fixed income investments experienced mostly positive returns for the quarter and the year.
- TIPS and longer-term issues experienced negative returns.

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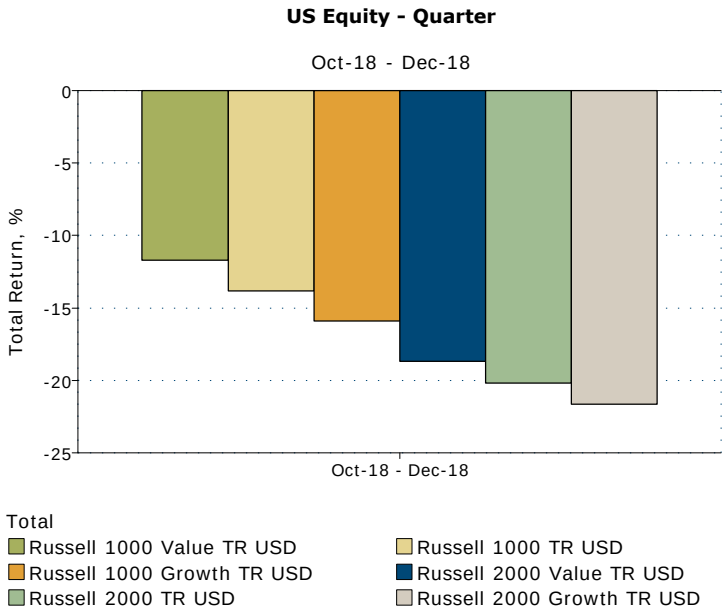
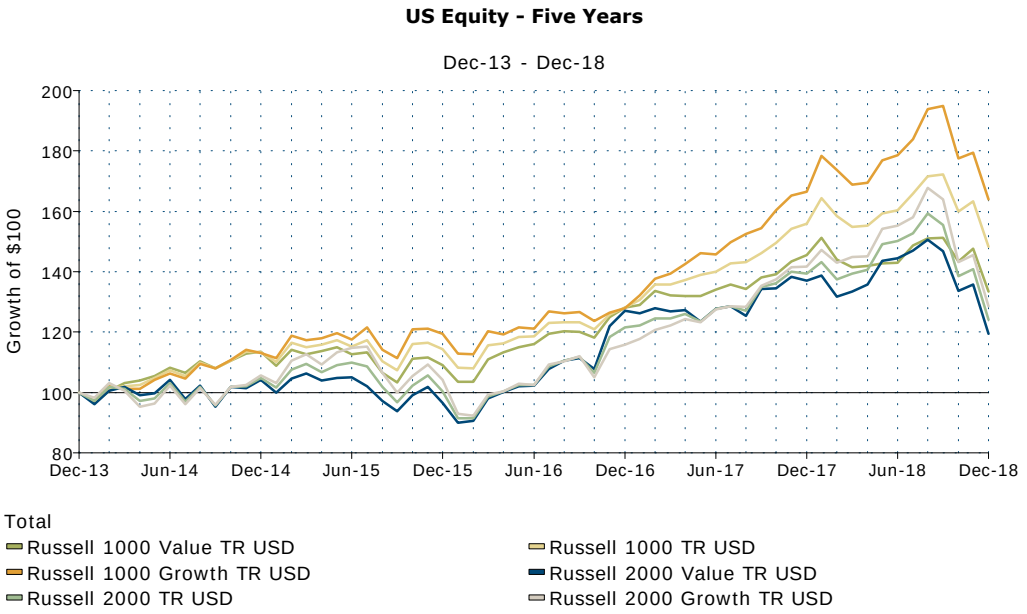
US Equity Market Commentary - 4th Quarter 2018





US Stock Market

- Domestic markets heightened volatility over the quarter. The S&P 500 and Dow finished the quarter down, (13.52%) and (11.31%), respectively. For the year, the Dow was down (3.48%) and the S&P 500 fell (4.38%).
- Large, mid and small cap growth stocks declined more than value, with the Russell 1000, Russell Midcap Growth, and Russell 2000 Growth benchmarks falling more sharply than their value counterparts during the quarter. However, growth fared better than value for the year.
- REITs also fell during the quarter.

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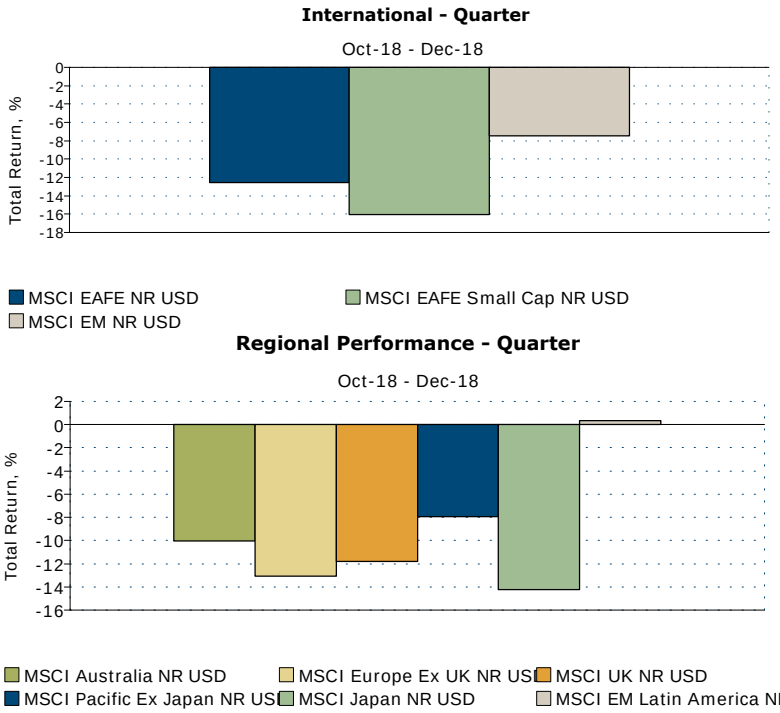
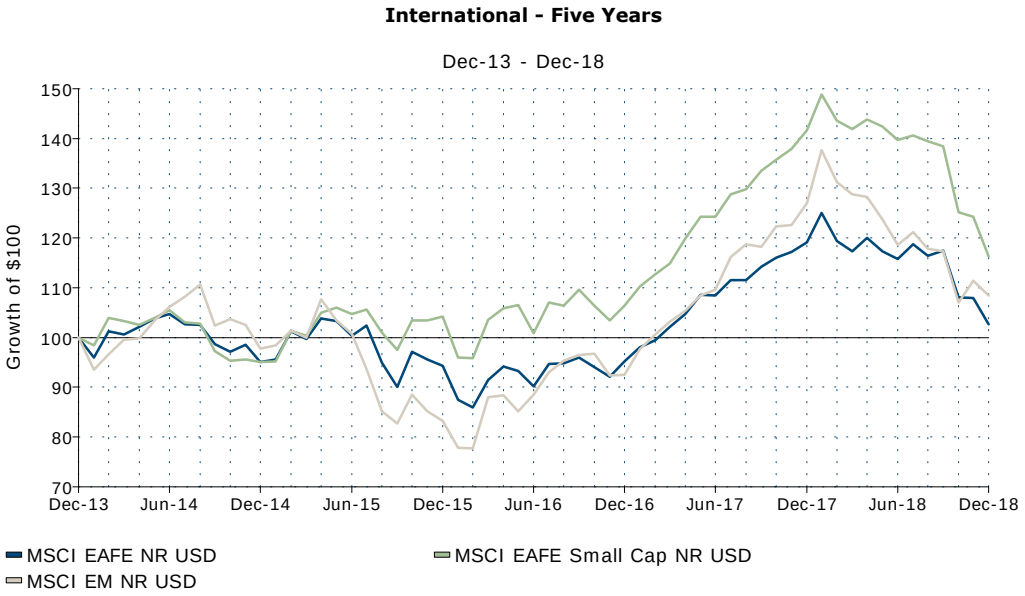
International Market Commentary - 4th Quarter 2018





International Markets

- Global markets returns also declined during the quarter. The MSCI EAFE posted a (12.54%) decline, while MSCI EM index fell (7.47%). For the year, The MSCI EAFE was down (13.79%) and the MSCI EM ended down (14.58%).
- Small-cap international stocks also fell, the MSCI Small Cap posted a return of (16.05%) for the quarter and (17.89%) for the year.
- Trade war tensions and uncertainties regarding Britain's exit from the European Union impacted global market returns during the quarter.

Performance Summary

Milliman | Quarterly Investment Monitor

Data as of 12/31/2018

Asset Allocation

	Balances As of 12/31/2018	Percent As of 12/31/2018	Balances As of 09/30/2018	Percent As of 09/30/2018	Notes
Wells Fargo Treasury Plus MMkt Inst	$956,233	3.02%	$686,232	2.02%	PISXX
Vanguard Short-Term Bond Index Adm	$1,923,375	6.08%	$1,736,675	5.10%	VBIRX
Vanguard Inflation-Protected Secs I	$1,295,687	4.09%	$1,385,117	4.07%	VIPIX
Dodge & Cox Income	$718,088	2.27%	$786,001	2.31%	DODIX
Vanguard Total Bond Market Index Adm	$721,824	2.28%	$781,898	2.30%	VBTLX
Columbia Strategic Income Inst3	$1,428,656	4.51%	$1,559,772	4.58%	CPHUX
PIMCO Long Duration Total Return Instl	$640,266	2.02%	$693,232	2.04%	PLRIX
Vanguard Long-Term Bond Index Investor	$641,863	2.03%	$694,658	2.04%	VBLTX
PGIM High Yield R6	$1,573,636	4.97%	$1,742,700	5.12%	PHYQX
American Funds Washington Mutual R6	$2,529,122	7.99%	$2,779,572	8.17%	RWMGX
Vanguard Growth Index Institutional	$3,453,015	10.91%	$3,841,103	11.29%	VIGIX
Vanguard Mid-Cap Value Index Admiral	$2,493,092	7.88%	$2,778,140	8.16%	VMVAX
PGIM QMA Small-Cap Value R6	$2,184,289	6.90%	$2,424,846	7.12%	TSVQX
Federated Kaufmann Small Cap Instl	$1,272,588	4.02%	$1,386,465	4.07%	FKAIX
Oppenheimer International Growth I	$2,229,575	7.04%	$2,400,270	7.05%	OIGIX
American Funds New Perspective R6	$2,219,487	7.01%	$2,417,771	7.10%	RNPGX
Vanguard Emerging Mkts Stock Idx Instl	$3,844,557	12.14%	$4,160,521	12.22%	VEMIX
Vanguard Real Estate Index Institutional	$1,532,295	4.84%	$1,778,034	5.22%	VGSNX
Plan Total	**$31,657,646**		**$34,033,008**		

Investment Policy Review - Active Management

Fund Name	Return Rank 3Y	Return Rank 5Y	Excess Return 3Y	Excess Return 5Y	Relative StdDev 3Y	Relative StdDev 5Y	Alpha Rank 3Y	Sharpe Rank 3Y	Alpha Rank 5Y	Sharpe Rank 5Y
Vanguard Inflation-Protected Secs I	26	12	-0.08	-0.01	1.04	1.03	43	30	14	13
Dodge & Cox Income	8	15	1.49	1.01	1.14	1.17	7	4	6	7
Columbia Strategic Income Inst3	15	7	1.87	2.58	0.61	0.73	23	26	8	15
PIMCO Long Duration Total Return Instl	11	11	1.10	0.59	0.99	0.99	44	56	44	44
PGIM High Yield R6	8	3	-0.07	0.44	0.95	0.93	18	12	14	14
American Funds Washington Mutual R6	5	2	3.14	2.36	0.89	0.93	5	4	4	2
PGIM QMA Small-Cap Value R6	41	46	-2.38	-0.93	1.10	1.07	59	50	50	48
Federated Kaufmann Small Cap Instl	1	1	9.24	6.74	1.04	1.03	1	1	1	1
Oppenheimer International Growth I	87	66	-2.96	-2.14	1.07	1.05	88	87	68	64
American Funds New Perspective R6	18	9	1.06	2.16	1.07	1.02	25	21	9	8

Definitions

Return Rank - Fund's category percentile return rank, a value less than 50 (1 is the best and 100 is the worst) implies the fund is beating more than 50% of its peer group.

Excess Return - Fund's excess return over its benchmark, a value greater than 0 implies the fund's return is higher than its benchmark.

Relative StdDev - Fund's standard deviation relative to its benchmark, a value less than 1 implies the fund's standard deviation is lower than its benchmark.

Alpha Rank - Fund's category percentile Alpha rank, a value less than 50 (1 is the best and 100 is the worst) implies the fund is beating more than 50% of its peer group.

Sharpe Rank - Fund's category percentile Sharpe Ratio rank, a value less than 50 (1 is the best and 100 is the worst) implies the fund is beating more than 50% of its peer group.

Investment Policy Review - Passive Management

Fund Name	Excess Return 3Y	Excess Return 5Y	Beta 3Y	Tracking Error 3Y	Beta 5Y	Tracking Error 5Y	Expense Ratio
Vanguard Short-Term Bond Index Adm	-0.07	-0.08	1.01	0.14	1.02	0.15	0.07
Vanguard Total Bond Market Index Adm	-0.06	-0.04	1.01	0.26	1.02	0.26	0.05
Vanguard Long-Term Bond Index Investor	-0.01	0.03	1.01	0.59	1.03	0.78	0.15
Vanguard Growth Index Institutional	-0.02	-0.04	1.00	0.03	1.00	0.03	0.04
Vanguard Mid-Cap Value Index Admiral	-0.03	-0.04	1.00	0.04	1.00	0.04	0.07
Vanguard Emerging Mkts Stock Idx Instl	0.67	-0.44	0.98	1.83	0.99	2.06	0.11
Vanguard Real Estate Index Institutional	-0.57	-0.39	0.99	0.54	0.99	0.42	0.10

Definitions

Excess Return - Fund's excess return over its benchmark, a value greater than 0 implies the fund's return is higher than its benchmark.

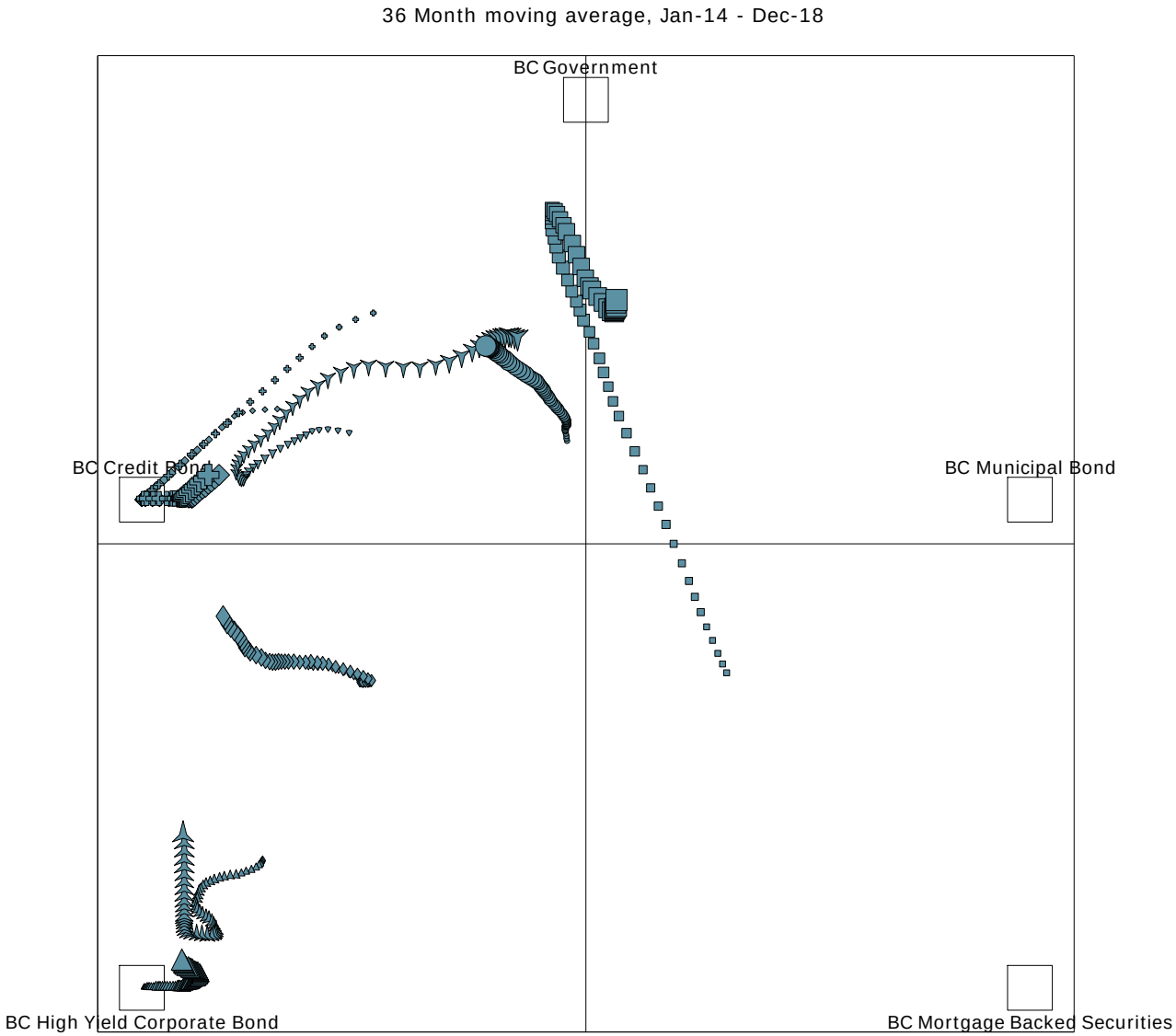
Beta - Fund's Beta or sensitivity to movements compared to its benchmark, a value of 1 implies its moving in sync with its benchmark.

Tracking Error - Fund's Tracking Error versus its benchmark, a value of 0 implies the Fund's ups and downs are the same size as its benchmark.

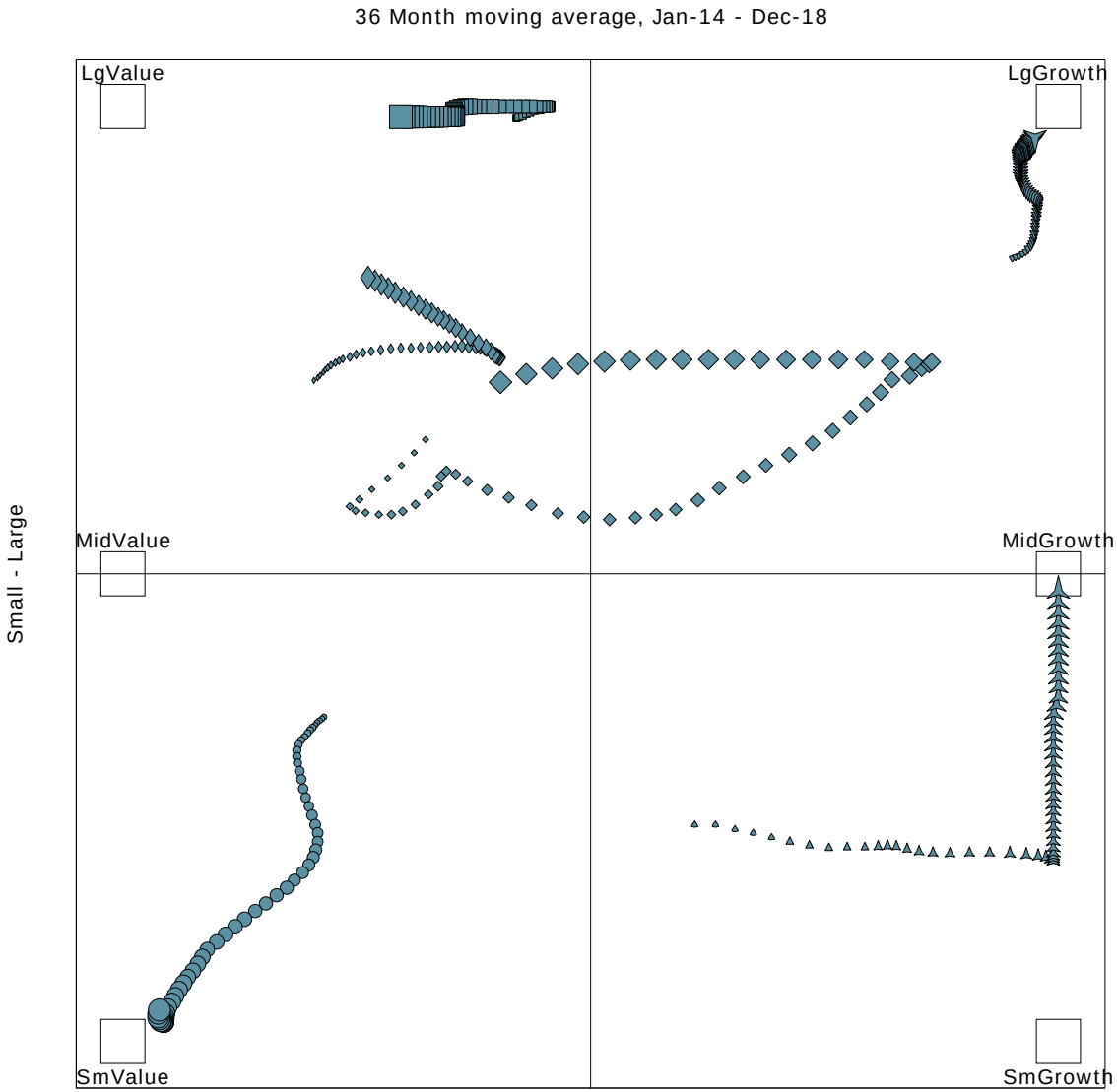
Investment Option Return Summary

Asset Class	Fund Name	3 Months	YTD	1 Year	3 Years	5 Years	10 Years	Ticker	Mstar Rating	Expense Ratio
Money Market-Taxable	Wells Fargo Treasury Plus MMkt Inst	0.53	1.68	1.68	0.86	0.52	0.27	PISXX	NA	0.20
	ICE BofAML 91-day Tbill Auction Avg	*0.56*	*1.87*	*1.87*	*1.02*	*0.63*	*0.37*	*N/A*	*NA*	*NA*
Short-term Bond	Vanguard Short-Term Bond Index Adm	1.44	1.35	1.35	1.34	1.24	1.98	VBIRX	3.00	0.07
	BBgBarc US 1-5Y GovCredit FlAdj TR USD	*1.46*	*1.38*	*1.38*	*1.40*	*1.32*	*NA*	*N/A*	*NA*	*NA*
Inflation-Protected Bond	Vanguard Inflation-Protected Secs I	(0.46)	(1.40)	(1.40)	2.04	1.68	3.55	VIPIX	4.00	0.07
	BBgBarc US Treasury US TIPS TR USD	*(0.42)*	*(1.26)*	*(1.26)*	*2.11*	*1.69*	*3.64*	*N/A*	*NA*	*NA*
Intermediate-term Bond	Dodge & Cox Income	0.27	(0.33)	(0.33)	3.18	2.87	5.01	DODIX	4.00	0.43
	BB Intermediate Government/Credit	*1.65*	*0.88*	*0.88*	*1.70*	*1.86*	*2.90*	*N/A*	*NA*	*NA*
Intermediate-term Bond	Vanguard Total Bond Market Index Adm	1.61	(0.03)	(0.03)	2.03	2.46	3.42	VBTLX	3.00	0.05
	BBgBarc US Agg Float Adj TR USD	*1.58*	*(0.08)*	*(0.08)*	*2.09*	*2.50*	*NA*	*N/A*	*NA*	*NA*
Nontraditional Bond	Columbia Strategic Income Inst3	(1.18)	(0.64)	(0.64)	4.57	3.66	6.38	CPHUX	5.00	0.61
	BBgBarc Global Aggregate TR USD	*1.20*	*(1.20)*	*(1.20)*	*2.70*	*1.08*	*2.49*	*N/A*	*NA*	*NA*
Long-term Bond	PIMCO Long Duration Total Return Instl	0.69	(3.86)	(3.86)	5.13	5.95	6.53	PLRIX	4.00	1.00
Long-term Bond	Vanguard Long-Term Bond Index Investor	1.09	(4.51)	(4.51)	4.02	5.40	5.79	VBLTX	2.00	0.15
	BB Long Government/Credit	*0.78*	*(4.68)*	*(4.68)*	*4.03*	*5.37*	*5.88*	*N/A*	*NA*	*NA*
High Yield Bond	PGIM High Yield R6	(4.14)	(1.18)	(1.18)	7.16	4.28	10.20	PHYQX	5.00	0.42
	BB High Yield Corporate Bond	*(4.53)*	*(2.08)*	*(2.08)*	*7.23*	*3.83*	*11.12*	*N/A*	*NA*	*NA*
Large Blend	American Funds Washington Mutual R6	(9.25)	(2.66)	(2.66)	10.09	8.30	12.47	RWMGX	5.00	0.29
	Russell 1000 Value Index	*(11.72)*	*(8.27)*	*(8.27)*	*6.95*	*5.95*	*11.18*	*N/A*	*NA*	*NA*
Large Growth	Vanguard Growth Index Institutional	(16.31)	(3.33)	(3.33)	9.46	9.01	14.54	VIGIX	4.00	0.04
	CRSP US Large Cap Growth TR USD	*(16.32)*	*(3.34)*	*(3.34)*	*9.47*	*9.05*	*NA*	*N/A*	*NA*	*NA*
Mid-Cap Value	Vanguard Mid-Cap Value Index Admiral	(15.06)	(12.42)	(12.42)	5.71	5.75	13.45	VMVAX	4.00	0.07
	CRSP US Mid Cap Value TR USD	*(15.06)*	*(12.42)*	*(12.42)*	*5.75*	*5.79*	*NA*	*N/A*	*NA*	*NA*
Small Value	PGIM QMA Small-Cap Value R6	(20.13)	(18.82)	(18.82)	5.00	2.67	10.68	TSVQX	3.00	0.63
	Russell 2000 Value Index	*(18.67)*	*(12.86)*	*(12.86)*	*7.37*	*3.61*	*10.40*	*N/A*	*NA*	*NA*
Small Growth	Federated Kaufmann Small Cap Instl	(15.90)	7.40	7.40	16.48	11.88	16.49	FKAIX	5.00	0.91
	Russell 2000 Growth TR USD	*(21.65)*	*(9.31)*	*(9.31)*	*7.24*	*5.13*	*13.52*	*N/A*	*NA*	*NA*
Foreign Large Growth	Oppenheimer International Growth I	(14.63)	(19.22)	(19.22)	0.26	(0.54)	8.10	OIGIX	2.00	0.69
	MSCI EAFE Large Growth NR USD	*(12.00)*	*(10.98)*	*(10.98)*	*3.22*	*1.60*	*6.94*	*N/A*	*NA*	*NA*
World Large Stock	American Funds New Perspective R6	(13.15)	(5.56)	(5.56)	7.66	6.42	11.76	RNPGX	4.00	0.45
	MSCI AC World Index ND USD	*(12.75)*	*(9.42)*	*(9.42)*	*6.60*	*4.26*	*9.46*	*N/A*	*NA*	*NA*
Diversified Emerging Mkts	Vanguard Emerging Mkts Stock Idx Instl	(6.30)	(14.54)	(14.54)	7.88	1.36	7.52	VEMIX	3.00	0.11
	FTSE EMs AC China A Incl (US RIC) NR USD	*(6.43)*	*(14.77)*	*(14.77)*	*7.21*	*1.80*	*8.30*	*N/A*	*NA*	*NA*
Real Estate	Vanguard Real Estate Index Institutional	(6.46)	(5.93)	(5.93)	2.31	7.41	12.07	VGSNX	3.00	0.10
	MSCI US REIT GR USD	*(6.72)*	*(4.57)*	*(4.57)*	*2.88*	*7.80*	*12.17*	*N/A*	*NA*	*NA*
Total Plan	OPEB-GROSS RETURN	(8.77)	(6.35)	(6.35)	6.20	5.12	NA	N/A	NA	NA
Total Plan	OPEB-NET RETURN	(8.84)	(6.62)	(6.62)	5.90	4.81	NA	N/A	NA	NA
	OPEB Plan Policy Index	*(9.01)*	*(6.55)*	*(6.55)*	*6.24*	*4.87*	*7.99*	*N/A*	*NA*	*NA*

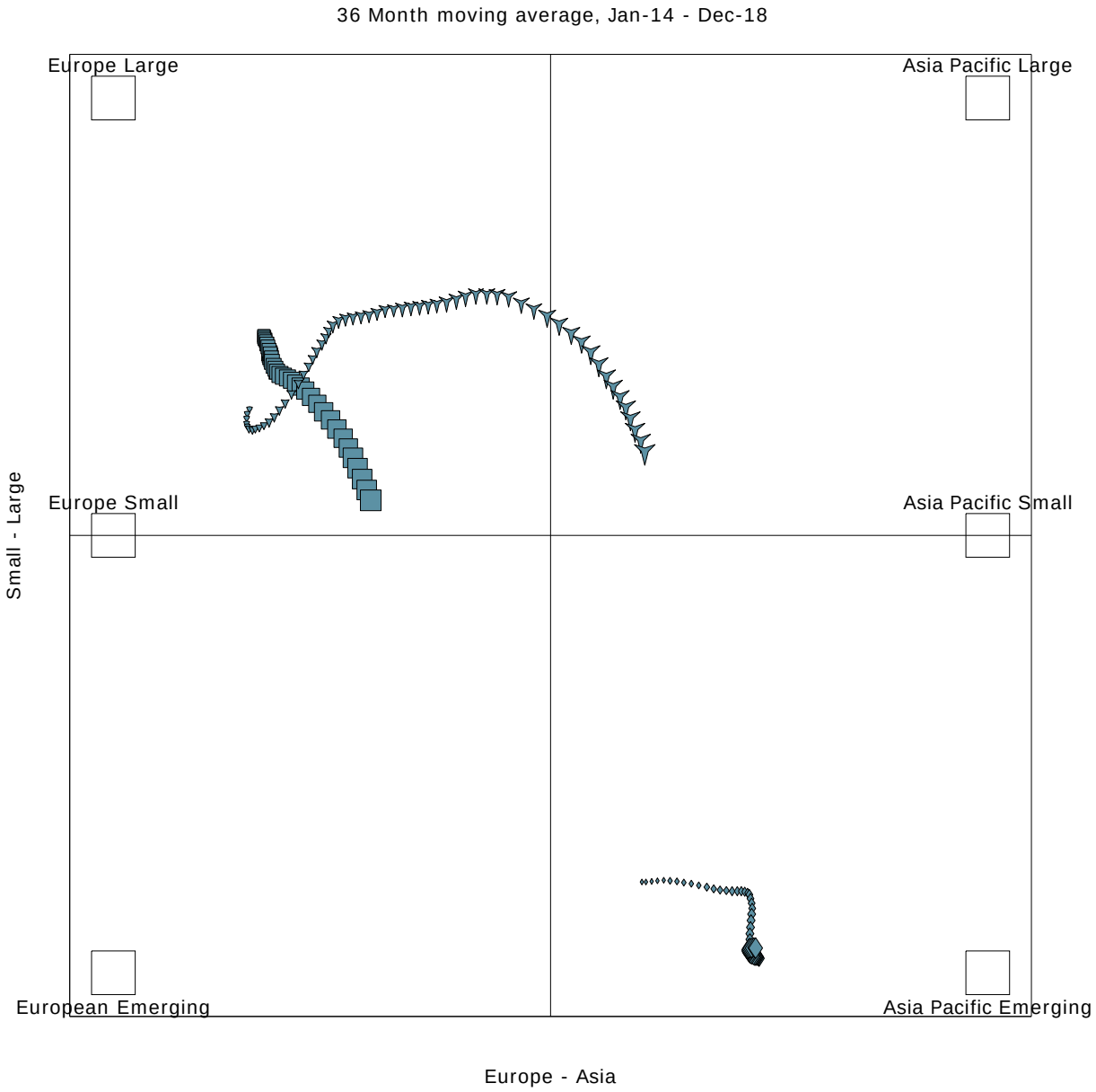
U.S. Fixed Income Style Map



U.S. Equity Style Map



International Equity Style Map

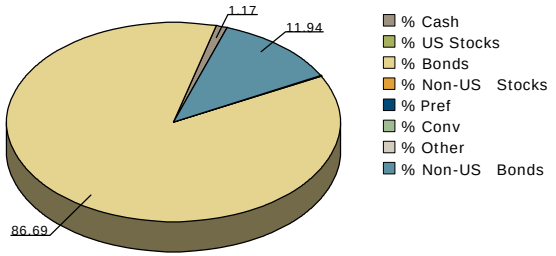


Core Fund Review

Milliman | Quarterly Investment Monitor

Data as of 12/31/2018

Vanguard Short-Term Bond Index Adm



Portfolio Region	
% United States	NA
% Canada	NA
% Latin America	NA
% United Kingdom	NA
% Eurozone	NA
% Europe - ex Euro	NA
% Europe - Emerging	NA
% Africa	NA
% Middle East	NA
% Japan	NA
% Australasia	NA
% Asia - Developed	NA
% Asia - Emerging	NA

Portfolio Structure	
% Cash	1.17
% US Stocks	0.00
% Bonds	86.69
% Non-US Stocks	0.00
% Pref	0.00
% Conv	0.20
% Other	0.00
% Non-US Bonds	11.94

Sector Allocation	
% Basic Materials	NA
% Communication Services	NA
% Consumer Cyclical	NA
% Consumer Defensive	NA
% Healthcare	NA
% Industrials	NA
% Real Estate	NA
% Technology	NA
% Energy	NA
% Financial Services	NA
% Utilities	NA

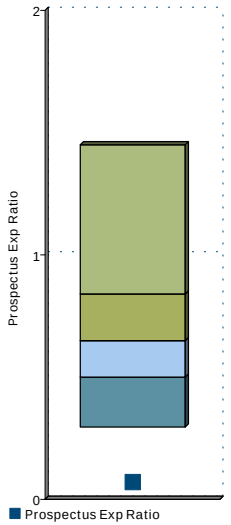
Credit Quality	
Avg Eff Duration	2.66
Effective Maturity	2.90
Avg Credit Quality	AA
AAA	70.13
AA	5.56
A	11.60
BBB	12.70
BB	0.00
B	0.00
Below B	0.01
NR/NA	0.00

Top Ten Holdings	
United States Treasury Notes 1.25%	2.10%
United States Treasury Notes 1.25%	1.77%
United States Treasury Notes 1.38%	1.65%
United States Treasury Notes 1.38%	1.46%
United States Treasury Notes 1.88%	1.21%
United States Treasury Notes 1.38%	1.20%
United States Treasury Notes 1.62%	1.20%
United States Treasury Notes 1.62%	1.17%
United States Treasury Notes 1.12%	1.17%
United States Treasury Notes 1.38%	1.16%

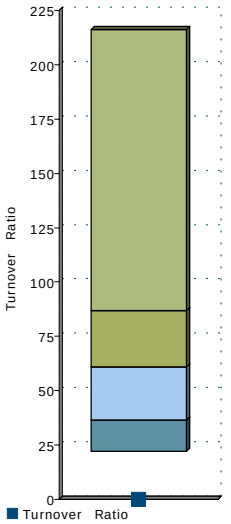
Portfolio Information	
Ticker	VBIRX
Morningstar Category	Short-term Bond
Avg Mkt Cap $MM	NA
Cat Med Mkt Cap $MM	22921.19
Net Assets $MM	53234.00
Turnover Ratio	0.05
% Assets in Top 10 Holdings	14.10
Total Number of Holdings	2554.00
Manager Name	Joshua C. Barrickman
Manager Tenure	5.86
Fund Incept Date	03/01/1994
Prospectus Exp Ratio	0.07
Phone Number	800-662-7447

Portfolio Ratings	
Mstar Rating	★★★
3 Year Mstar Rating	★★★
% Rank Cat 3 Yr	65
5 Year Mstar Rating	★★★
% Rank Cat 5 Yr	51
10 Year Mstar Rating	★★
% Rank Cat 10 Yr	74

Expense Ratio vs. Peer Group



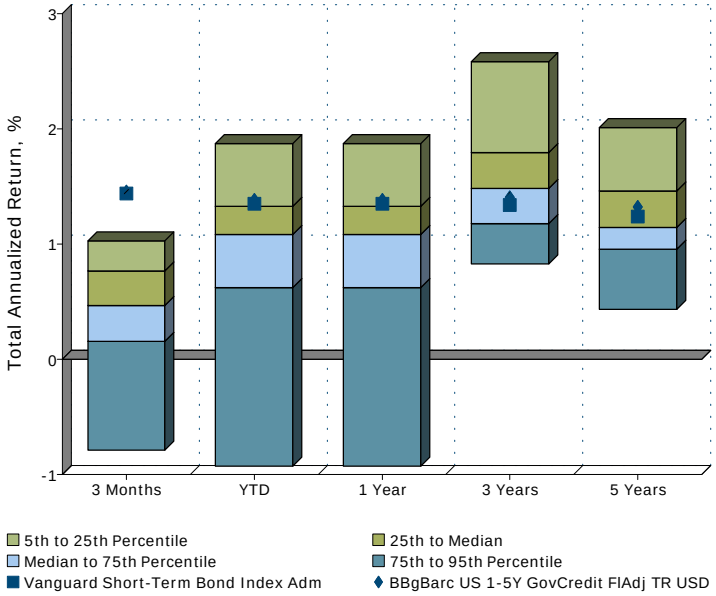
Turnover Ratio vs. Peer Group



Investment Strategy Summary

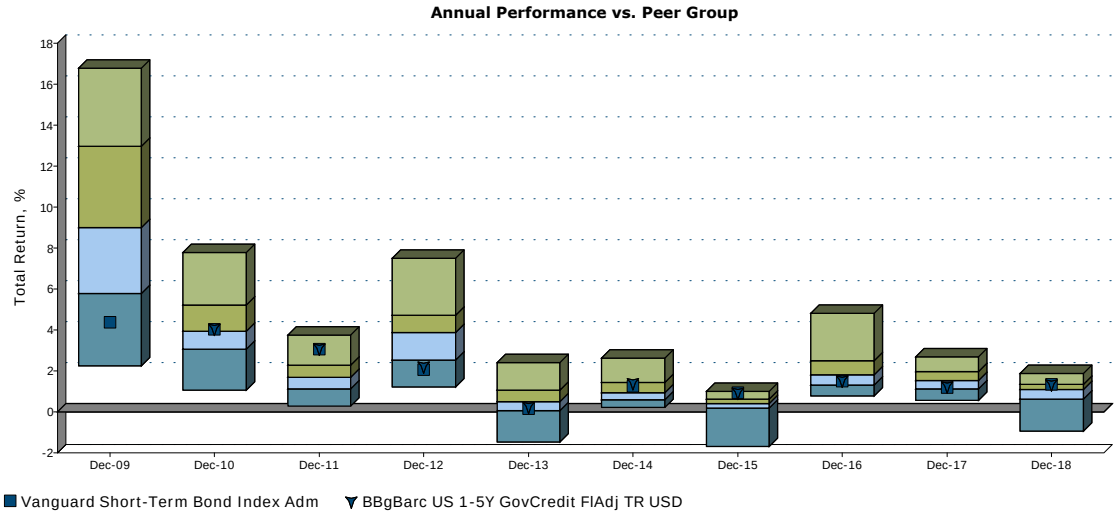
The investment seeks to track the performance of Bloomberg Barclays U.S. 1-5 Year Government/Credit Float Adjusted Index. Bloomberg Barclays U.S. 1-5 Year Government/Credit Float Adjusted Index includes all medium and larger issues of U.S. government, investment-grade corporate, and investment-grade 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 vs. Peer Group

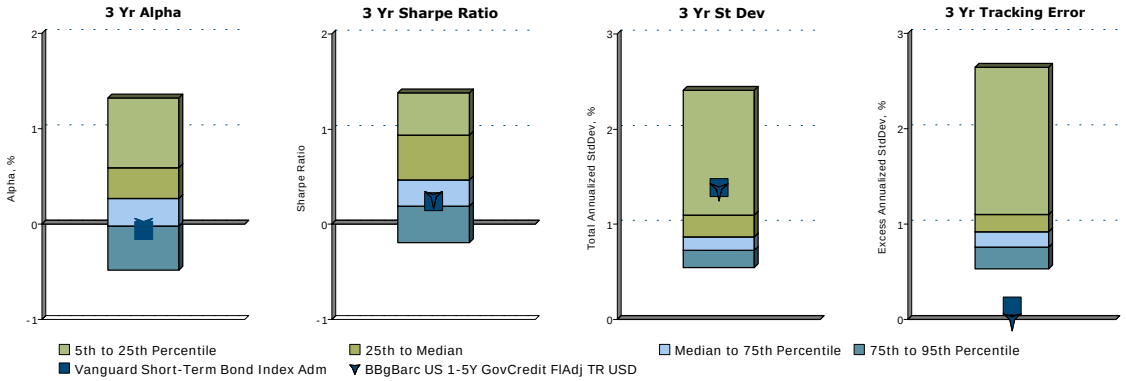


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Vanguard Short-Term Bond Index Adm	1.44	1.35	1.35	1.34	1.24
BBgBarc US 1-5Y GovCredit FlAdj TR USD	1.46	1.38	1.38	1.40	1.32
Universe(5%)	1.03	1.87	1.87	2.58	2.01
Universe(25%)	0.77	1.33	1.33	1.79	1.46
Universe(Median)	0.47	1.08	1.08	1.48	1.14
Universe(75%)	0.16	0.62	0.62	1.18	0.96
Universe(95%)	-0.79	-0.93	-0.93	0.83	0.43

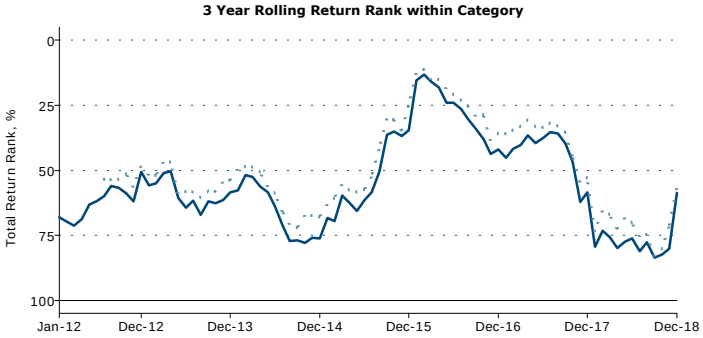
Vanguard Short-Term Bond Index Adm

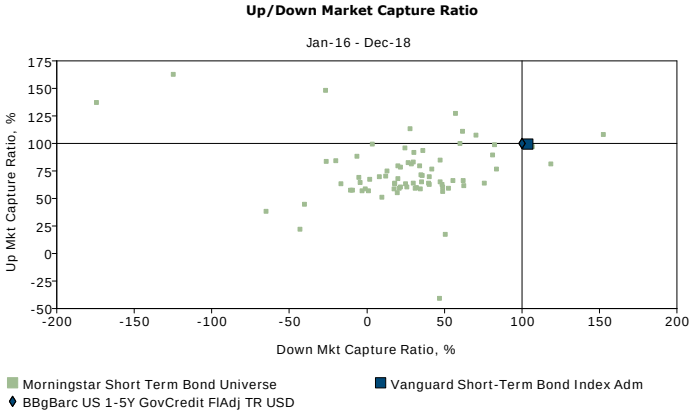


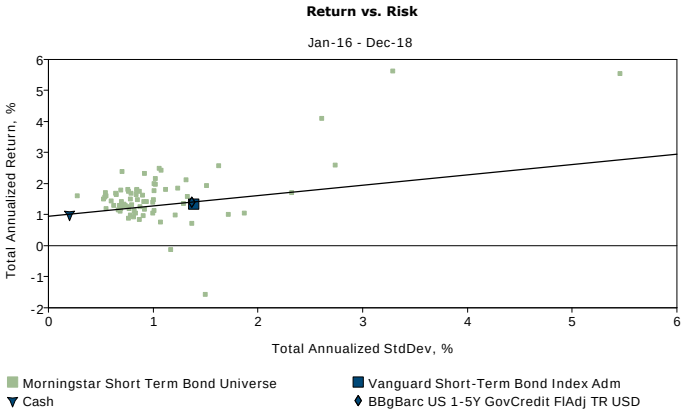
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vanguard Short-Term Bond Index Adm	4.38	4.03	3.08	2.05	0.17	1.26	0.92	1.49	1.18	1.35
BBgBarc US 1-5Y GovCredit FlAdj TR USD	NA	4.08	3.13	2.24	0.29	1.43	0.97	1.57	1.27	1.38



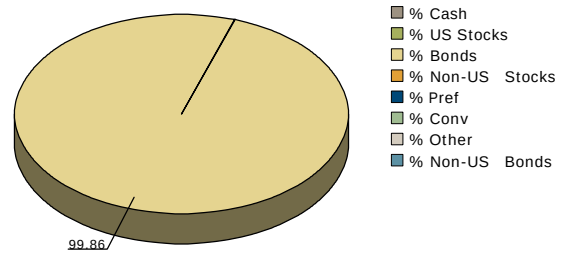
MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Vanguard Short-Term Bond Index Adm	-0.07	1.01	98.97	0.24	1.39	0.14	3.49
BBgBarc US 1-5Y GovCredit FlAdj TR USD	0.00	1.00	100.00	0.29	1.37	0.00	3.99
Universe(5%)	1.32	0.88	91.49	1.38	2.41	2.65	175.05
Universe(25%)	0.59	0.58	76.22	0.94	1.10	1.10	33.27
Universe(Median)	0.27	0.47	59.84	0.46	0.87	0.92	14.29
Universe(75%)	-0.02	0.37	37.65	0.19	0.73	0.76	5.38
Universe(95%)	-0.48	0.06	4.43	-0.19	0.55	0.53	1.30







Vanguard Inflation-Protected Secs I



Portfolio Region	
% United States	NA
% Canada	NA
% Latin America	NA
% United Kingdom	NA
% Eurozone	NA
% Europe - ex Euro	NA
% Europe - Emerging	NA
% Africa	NA
% Middle East	NA
% Japan	NA
% Australasia	NA
% Asia - Developed	NA
% Asia - Emerging	NA

Portfolio Structure	
% Cash	0.14
% US Stocks	0.00
% Bonds	99.86
% Non-US Stocks	0.00
% Pref	0.00
% Conv	0.00
% Other	0.00
% Non-US Bonds	0.00

Sector Allocation	
% Basic Materials	NA
% Communication Services	NA
% Consumer Cyclical	NA
% Consumer Defensive	NA
% Healthcare	NA
% Industrials	NA
% Real Estate	NA
% Technology	NA
% Energy	NA
% Financial Services	NA
% Utilities	NA

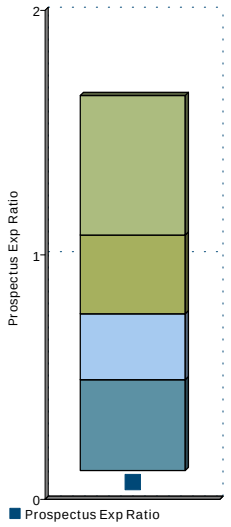
Credit Quality	
Avg Eff Duration	7.43
Effective Maturity	8.30
Avg Credit Quality	Government
AAA	100.00
AA	0.00
A	0.00
BBB	0.00
BB	0.00
B	0.00
Below B	0.00
NR/NA	0.00

Top Ten Holdings	
United States Treasury Notes 0.12%	5.70%
United States Treasury Notes 0.12%	4.15%
United States Treasury Notes 0.62%	3.82%
United States Treasury Notes 0.12%	3.81%
United States Treasury Notes 0.38%	3.75%
United States Treasury Notes 0.12%	3.74%
United States Treasury Notes 0.38%	3.72%
United States Treasury Notes 0.25%	3.71%
United States Treasury Notes 0.12%	3.69%
United States Treasury Notes 0.12%	3.46%

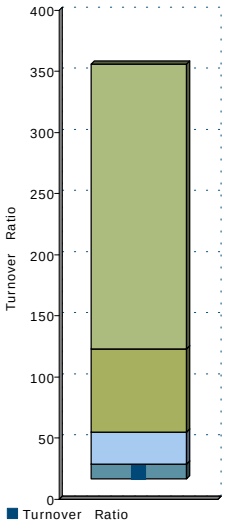
Portfolio Information	
Ticker	VIPIX
Morningstar Category	Inflation-Protected Bond
Avg Mkt Cap $MM	NA
Cat Med Mkt Cap $MM	15468.85
Net Assets $MM	26778.00
Turnover Ratio	22.00
% Assets in Top 10 Holdings	39.54
Total Number of Holdings	44.00
Manager Name	Gemma Wright-Casparius
Manager Tenure	7.37
Fund Incept Date	06/29/2000
Prospectus Exp Ratio	0.07
Phone Number	888-809-8102

Portfolio Ratings	
Mstar Rating	★★★★
3 Year Mstar Rating	★★★★
% Rank Cat 3 Yr	30
5 Year Mstar Rating	★★★★
% Rank Cat 5 Yr	12
10 Year Mstar Rating	★★★★
% Rank Cat 10 Yr	20

Expense Ratio vs. Peer Group



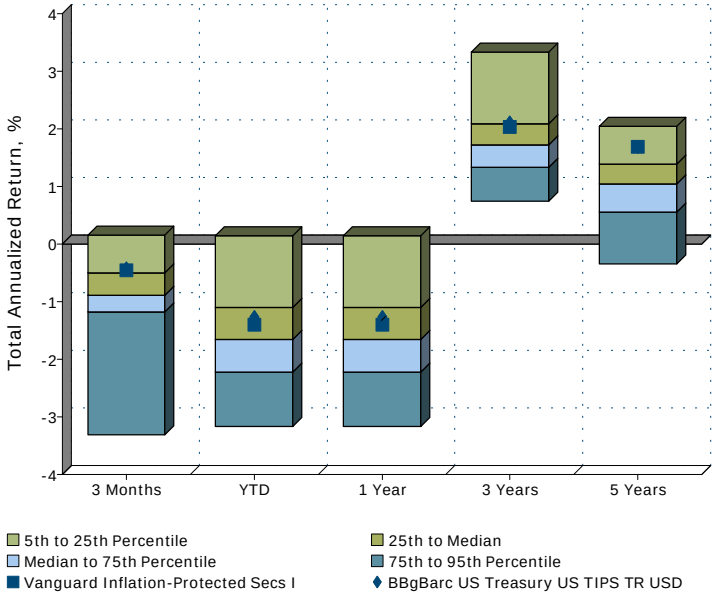
Turnover Ratio vs. Peer Group



Investment Strategy Summary

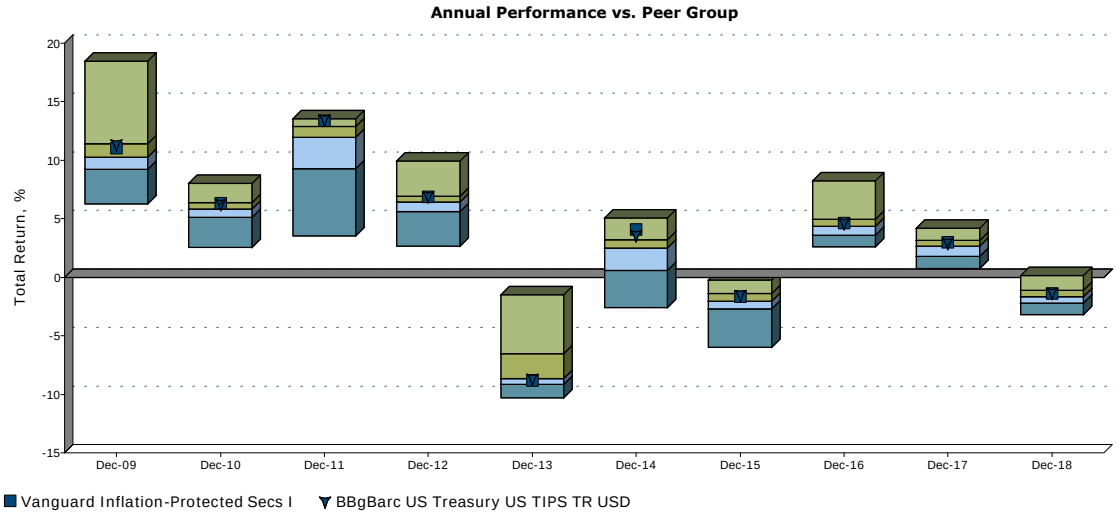
The investment seeks to provide inflation protection and income consistent with investment in inflation-indexed securities. The fund invests at least 80% of its assets in inflation-indexed bonds issued by the U.S. government, its agencies and instrumentalities, and corporations. It may invest in bonds 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 vs. Peer Group

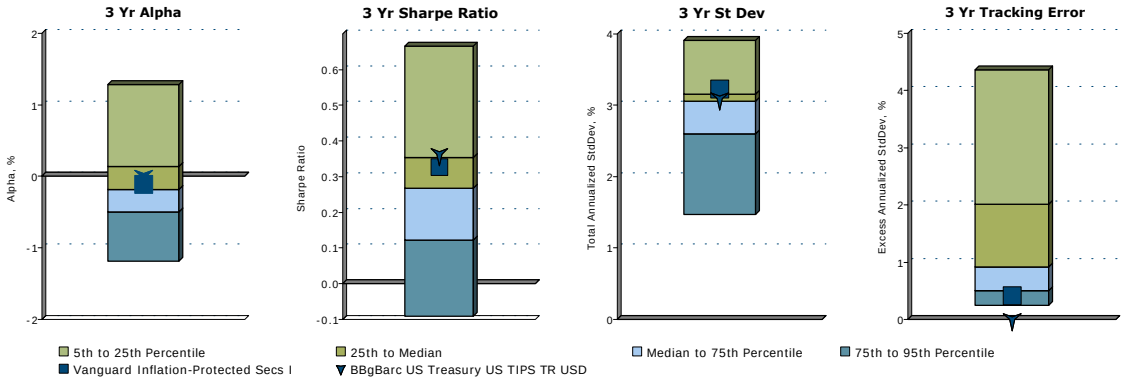


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Vanguard Inflation-Protected Secs I	-0.46	-1.40	-1.40	2.04	1.68
BBgBarc US Treasury US TIPS TR USD	-0.42	-1.26	-1.26	2.11	1.69
Universe(5%)	0.15	0.15	0.15	3.34	2.04
Universe(25%)	-0.49	-1.10	-1.10	2.09	1.39
Universe(Median)	-0.89	-1.65	-1.65	1.72	1.05
Universe(75%)	-1.18	-2.23	-2.23	1.33	0.56
Universe(95%)	-3.32	-3.17	-3.17	0.74	-0.34

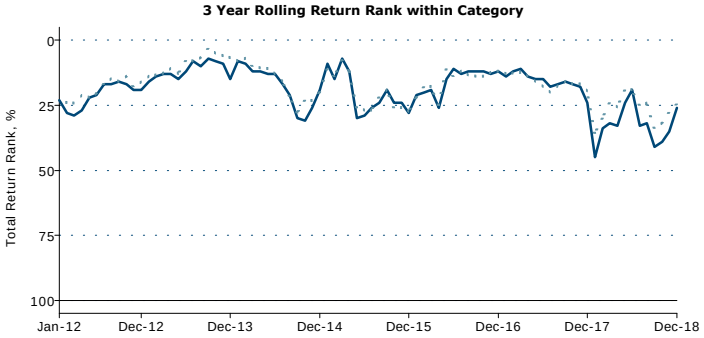
Vanguard Inflation-Protected Secs I

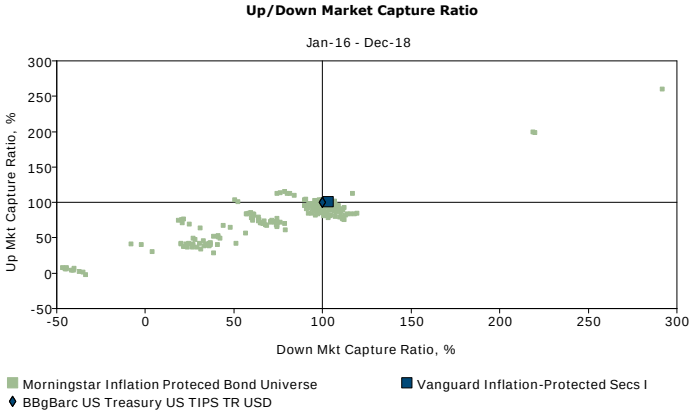


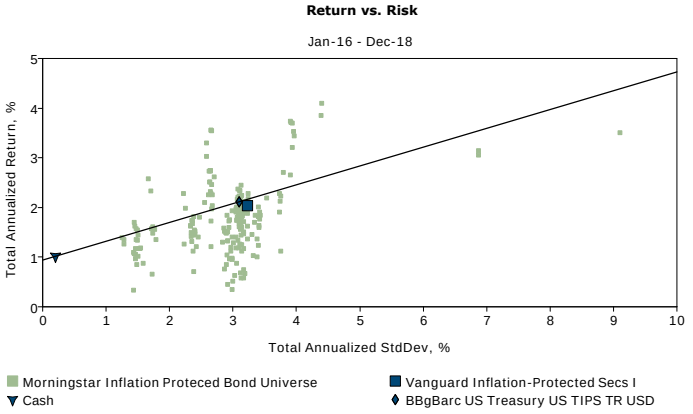
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vanguard Inflation-Protected Secs I	11.03	6.33	13.39	6.87	-8.83	4.07	-1.67	4.63	2.97	-1.40
BBgBarc US Treasury US TIPS TR USD	11.41	6.31	13.56	6.98	-8.61	3.64	-1.44	4.68	3.01	-1.26



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Vanguard Inflation-Protected Secs I	-0.11	1.03	98.51	0.33	3.23	0.41	1.62
BBgBarc US Treasury US TIPS TR USD	0.00	1.00	100.00	0.36	3.10	0.00	1.85
Universe(5%)	1.28	1.05	99.37	0.67	3.91	4.36	4.26
Universe(25%)	0.14	1.00	97.51	0.35	3.16	2.01	2.20
Universe(Median)	-0.18	0.94	92.14	0.27	3.06	0.92	1.55
Universe(75%)	-0.50	0.73	74.61	0.12	2.60	0.51	1.14
Universe(95%)	-1.18	0.29	24.57	-0.09	1.47	0.25	0.52







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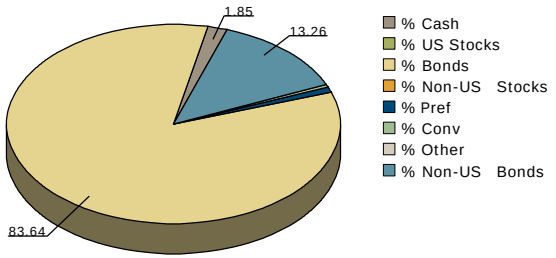
Dodge & Cox Income



Portfolio Region	
% United States	NA
% Canada	NA
% Latin America	NA
% United Kingdom	NA
% Eurozone	NA
% Europe - ex Euro	NA
% Europe - Emerging	NA
% Africa	NA
% Middle East	NA
% Japan	NA
% Australasia	NA
% Asia - Developed	NA
% Asia - Emerging	NA

Portfolio Structure	
% Cash	1.85
% US Stocks	0.00
% Bonds	83.64
% Non-US Stocks	0.00
% Pref	0.80
% Conv	0.45
% Other	0.00
% Non-US Bonds	13.26

Sector Allocation	
% Basic Materials	NA
% Communication Services	NA
% Consumer Cyclical	NA
% Consumer Defensive	NA
% Healthcare	NA
% Industrials	NA
% Real Estate	NA
% Technology	NA
% Energy	NA
% Financial Services	NA
% Utilities	NA

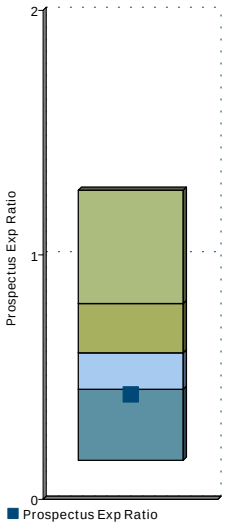
Credit Quality	
Avg Eff Duration	4.40
Effective Maturity	8.20
Avg Credit Quality	A
AAA	52.20
AA	6.40
A	4.70
BBB	31.20
BB	5.50
B	0.00
Below B	0.01
NR/NA	0.00

Top Ten Holdings	
United States Treasury Notes 2.25%	1.64%
United States Treasury Notes 2.38%	1.28%
United States Treasury Notes 1.38%	1.02%
Imperial Tobacco Finance plc 4.25%	0.98%
United States Treasury Notes 1.88%	0.86%
United States Treasury Notes 1.62%	0.86%
United States Treasury Notes 2%	0.85%
Verizon Communications Inc. 5.01%	0.85%
Charter Communications Operating, LLC/Charter Communications Operating Capi	0.82%
Citigroup Capital XIII Floating Rate Trust Pfd Secs Registered 2010-30.10.4	0.80%

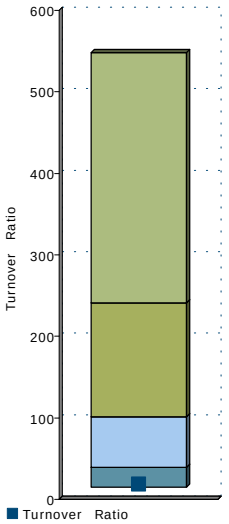
Portfolio Information	
Ticker	DODIX
Morningstar Category	Intermediate-term Bond
Avg Mkt Cap $MM	NA
Cat Med Mkt Cap $MM	NA
Net Assets $MM	55717.00
Turnover Ratio	19.00
% Assets in Top 10 Holdings	9.97
Total Number of Holdings	1097.00
Manager Name	Dana M. Emery
Manager Tenure	30.01
Fund Incept Date	01/03/1989
Prospectus Exp Ratio	0.43
Phone Number	800-621-3979

Portfolio Ratings	
Mstar Rating	★★★★
3 Year Mstar Rating	★★★★★
% Rank Cat 3 Yr	8
5 Year Mstar Rating	★★★★
% Rank Cat 5 Yr	17
10 Year Mstar Rating	★★★★
% Rank Cat 10 Yr	25

Expense Ratio vs. Peer Group



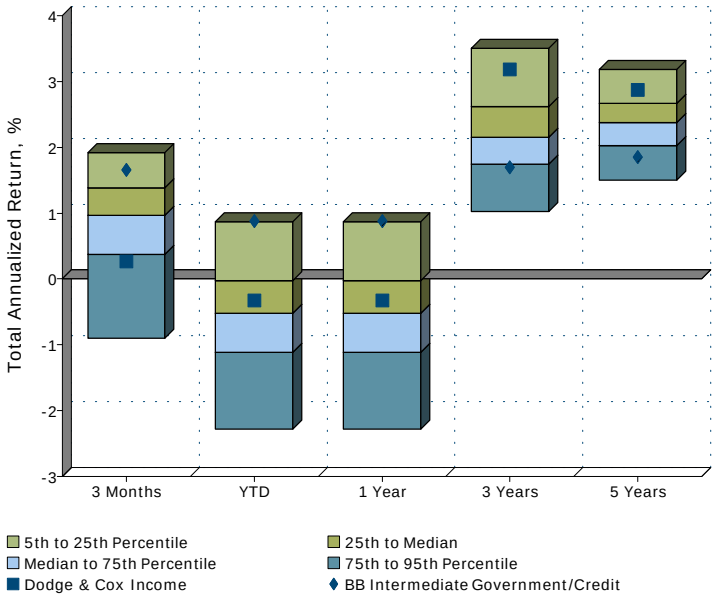
Turnover Ratio vs. Peer Group



Investment Strategy Summary

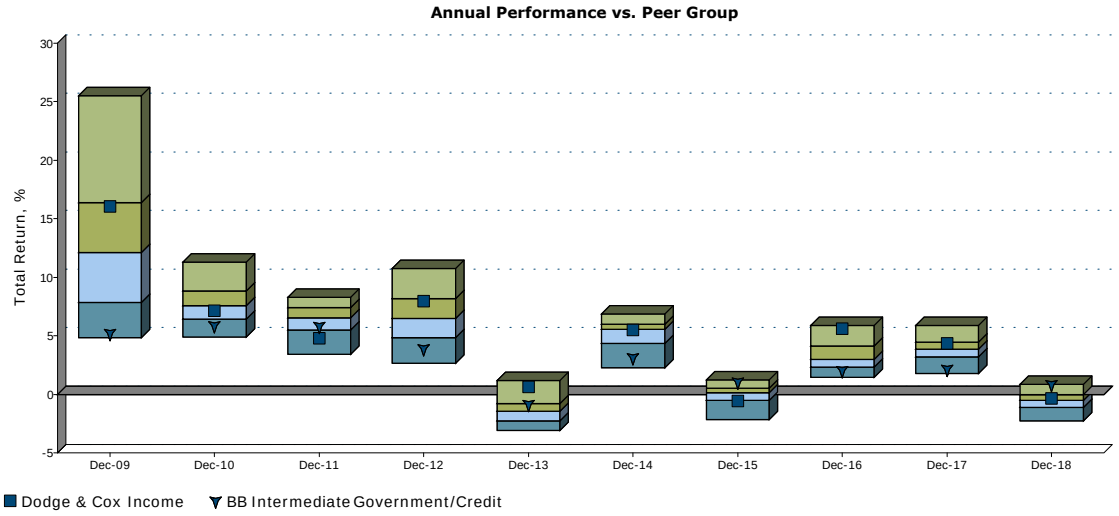
The investment seeks a high and stable rate of current income, consistent with long-term preservation of capital. The fund invests in a diversified portfolio of bonds and other debt securities. Under normal circumstances, the fund will invest at least 80% of its total assets in (1) investment-grade debt 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 vs. Peer Group

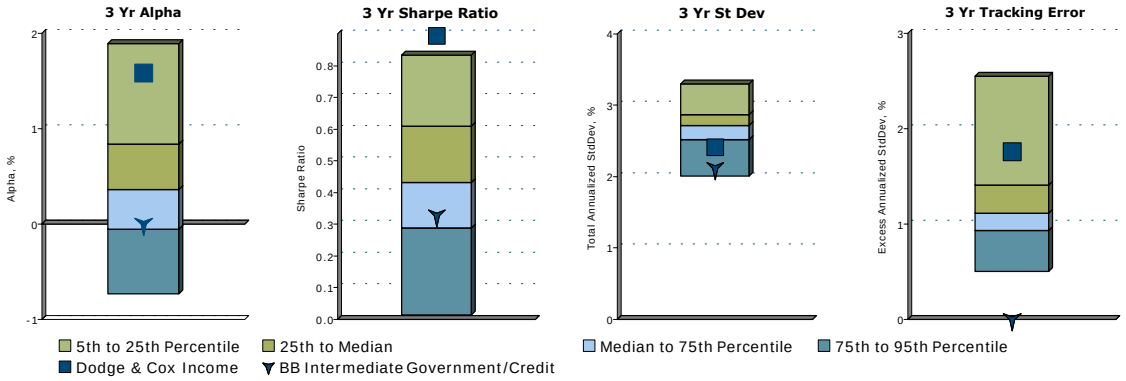


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Dodge & Cox Income	0.27	-0.33	-0.33	3.18	2.87
BB Intermediate Government/Credit	1.65	0.88	0.88	1.70	1.86
Universe(5%)	1.92	0.87	0.87	3.51	3.18
Universe(25%)	1.39	-0.02	-0.02	2.62	2.67
Universe(Median)	0.97	-0.52	-0.52	2.15	2.37
Universe(75%)	0.37	-1.11	-1.11	1.74	2.03
Universe(95%)	-0.90	-2.28	-2.28	1.02	1.50

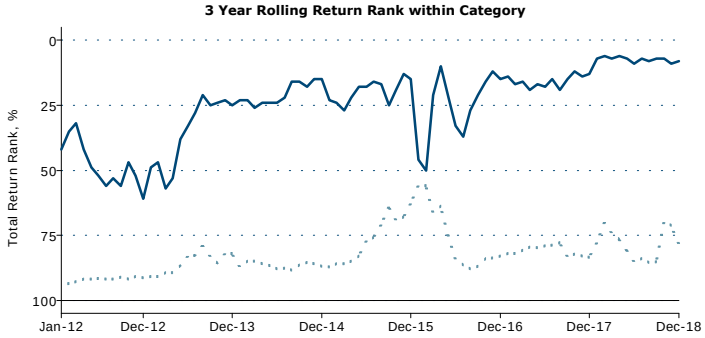
Dodge & Cox Income

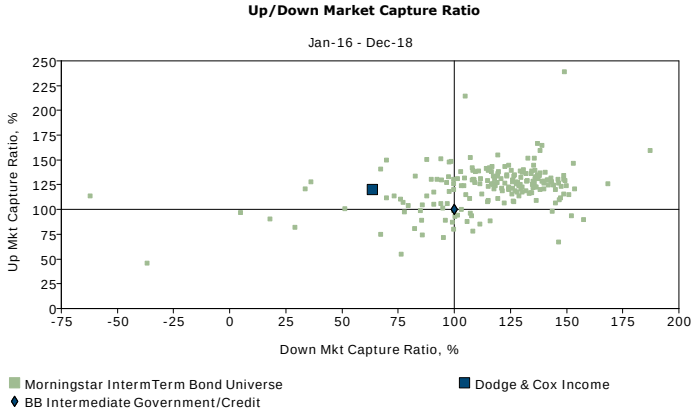


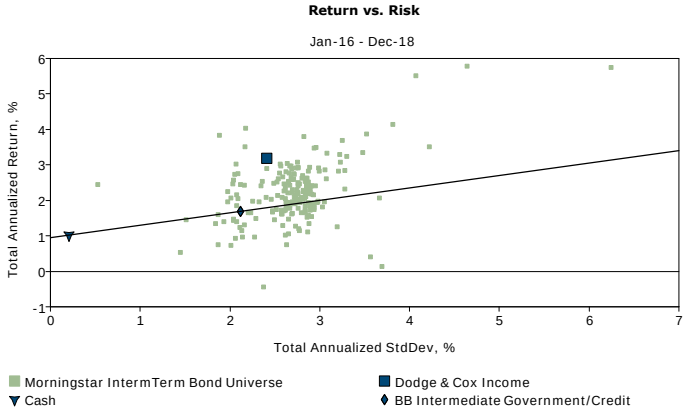
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Dodge & Cox Income	16.05	7.17	4.76	7.94	0.64	5.48	-0.59	5.61	4.36	-0.33
BB Intermediate Government/Credit	5.24	5.89	5.80	3.89	-0.86	3.13	1.07	2.08	2.14	0.88



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Dodge & Cox Income	1.58	0.83	51.03	0.89	2.41	1.76	7.22
BB Intermediate Government/Credit	0.00	1.00	100.00	0.33	2.12	0.00	2.44
Universe(5%)	1.89	1.34	95.89	0.83	3.30	2.55	6.43
Universe(25%)	0.84	1.25	91.83	0.61	2.87	1.41	3.63
Universe(Median)	0.36	1.16	85.22	0.43	2.72	1.11	2.50
Universe(75%)	-0.06	1.02	75.50	0.29	2.52	0.94	1.74
Universe(95%)	-0.73	0.69	35.41	0.01	2.01	0.50	0.84







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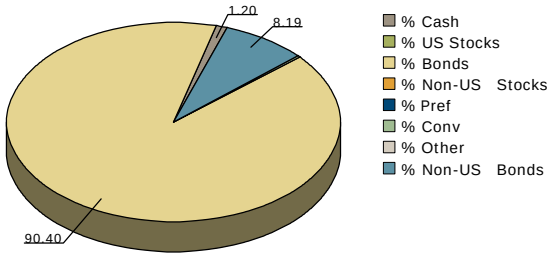
Vanguard Total Bond Market Index Adm



Portfolio Region	
% United States	NA
% Canada	NA
% Latin America	NA
% United Kingdom	NA
% Eurozone	NA
% Europe - ex Euro	NA
% Europe - Emerging	NA
% Africa	NA
% Middle East	NA
% Japan	NA
% Australasia	NA
% Asia - Developed	NA
% Asia - Emerging	NA

Portfolio Structure	
% Cash	1.20
% US Stocks	0.00
% Bonds	90.40
% Non-US Stocks	0.00
% Pref	0.00
% Conv	0.21
% Other	0.00
% Non-US Bonds	8.19

Sector Allocation	
% Basic Materials	NA
% Communication Services	NA
% Consumer Cyclical	NA
% Consumer Defensive	NA
% Healthcare	NA
% Industrials	NA
% Real Estate	NA
% Technology	NA
% Energy	NA
% Financial Services	NA
% Utilities	NA

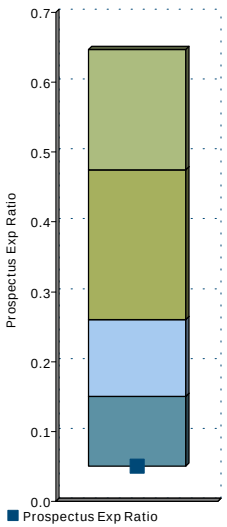
Credit Quality	
Avg Eff Duration	6.24
Effective Maturity	8.60
Avg Credit Quality	AA
AAA	68.27
AA	4.61
A	11.80
BBB	15.31
BB	0.00
B	0.00
Below B	0.01
NR/NA	0.00

Top Ten Holdings	
United States Treasury Notes 2.88%	0.47%
United States Treasury Notes 2.12%	0.46%
United States Treasury Notes 2.62%	0.42%
United States Treasury Notes 1.38%	0.42%
United States Treasury Notes 2.12%	0.42%
United States Treasury Notes 1.75%	0.39%
United States Treasury Notes 1.62%	0.39%
United States Treasury Notes 2.88%	0.38%
United States Treasury Notes 2.25%	0.38%
United States Treasury Notes 1.75%	0.37%

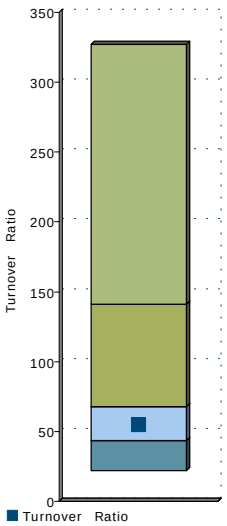
Portfolio Information	
Ticker	VBTLX
Morningstar Category	Intermediate-term Bond
Avg Mkt Cap $MM	NA
Cat Med Mkt Cap $MM	NA
Net Assets $MM	203989.00
Turnover Ratio	55.00
% Assets in Top 10 Holdings	4.10
Total Number of Holdings	17386.00
Manager Name	Joshua C. Barrickman
Manager Tenure	5.86
Fund Incept Date	12/11/1986
Prospectus Exp Ratio	0.05
Phone Number	800-662-7447

Portfolio Ratings	
Mstar Rating	★★★
3 Year Mstar Rating	★★★
% Rank Cat 3 Yr	54
5 Year Mstar Rating	★★★
% Rank Cat 5 Yr	39
10 Year Mstar Rating	★★
% Rank Cat 10 Yr	77

Expense Ratio vs. Peer Group



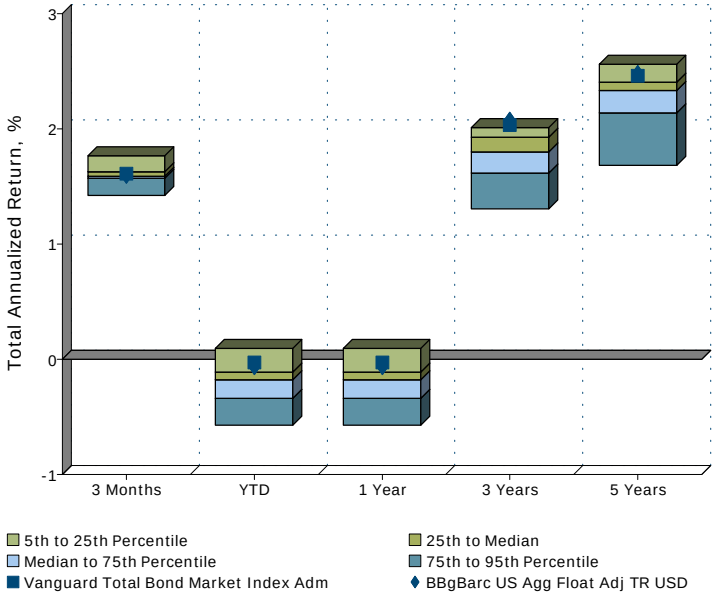
Turnover Ratio vs. Peer Group



Investment Strategy Summary

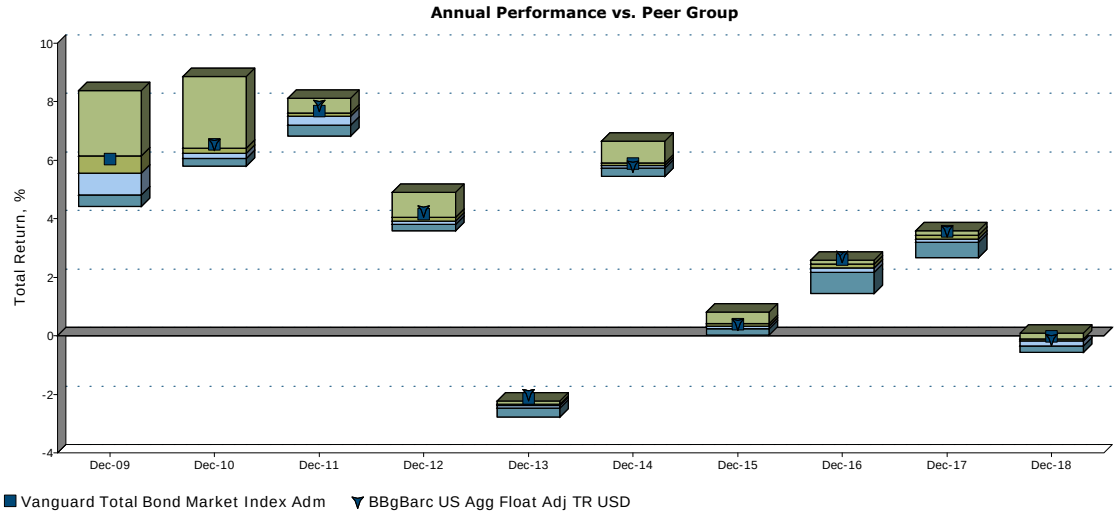
The investment seeks the performance of Bloomberg Barclays U.S. Aggregate Float Adjusted Index. Bloomberg Barclays U.S. Aggregate Float Adjusted Index represents a wide spectrum of public, investment-grade, taxable, fixed income securities in the United States-including government, corporate, and international 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 vs. Peer Group

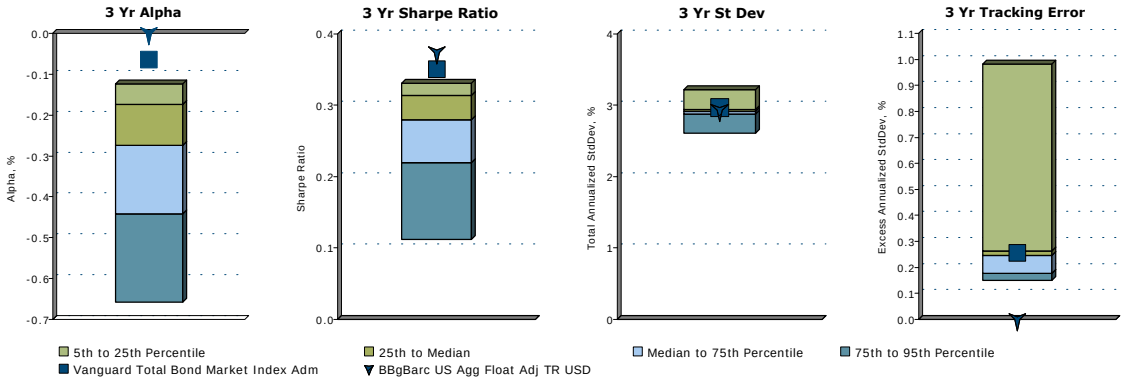


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Vanguard Total Bond Market Index Adm	1.61	-0.03	-0.03	2.03	2.46
BBgBarc US Agg Float Adj TR USD	1.58	-0.08	-0.08	2.09	2.50
Universe(5%)	1.77	0.09	0.09	2.01	2.56
Universe(25%)	1.63	-0.11	-0.11	1.93	2.40
Universe(Median)	1.59	-0.18	-0.18	1.80	2.33
Universe(75%)	1.57	-0.34	-0.34	1.62	2.14
Universe(95%)	1.42	-0.57	-0.57	1.31	1.69

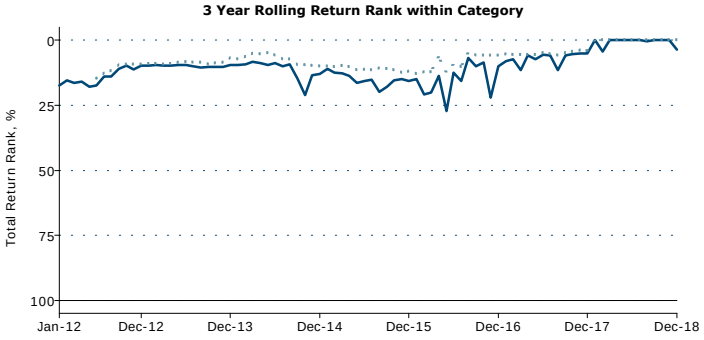
Vanguard Total Bond Market Index Adm

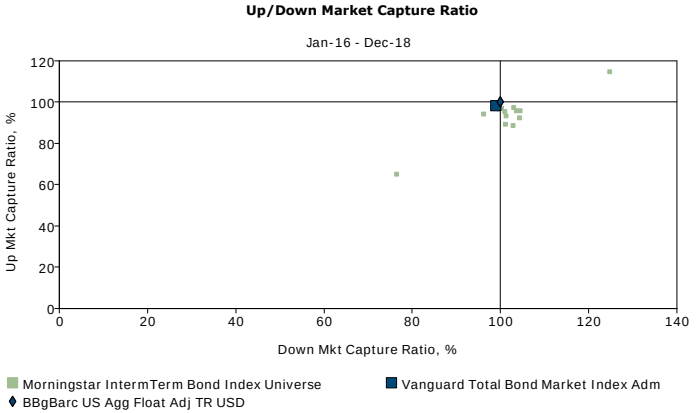


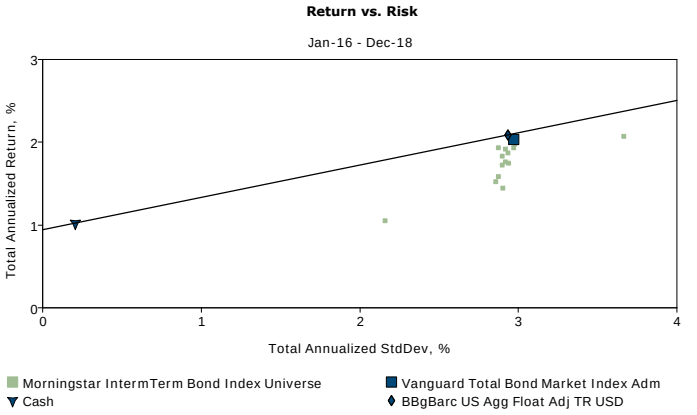
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vanguard Total Bond Market Index Adm	6.04	6.54	7.69	4.15	-2.15	5.89	0.40	2.60	3.56	-0.03
BBgBarc US Agg Float Adj TR USD	NA	6.58	7.92	4.32	-1.97	5.85	0.44	2.75	3.63	-0.08



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Vanguard Total Bond Market Index Adm	-0.06	1.01	99.26	0.35	2.97	0.26	1.85
BBgBarc US Agg Float Adj TR USD	0.00	1.00	100.00	0.37	2.93	0.00	1.98
Universe(5%)	-0.12	1.09	99.74	0.33	3.22	0.98	1.78
Universe(25%)	-0.17	1.00	99.66	0.31	2.94	0.26	1.69
Universe(Median)	-0.27	0.99	99.32	0.28	2.91	0.25	1.49
Universe(75%)	-0.44	0.98	99.23	0.22	2.88	0.18	1.32
Universe(95%)	-0.66	0.88	95.48	0.11	2.61	0.15	1.11







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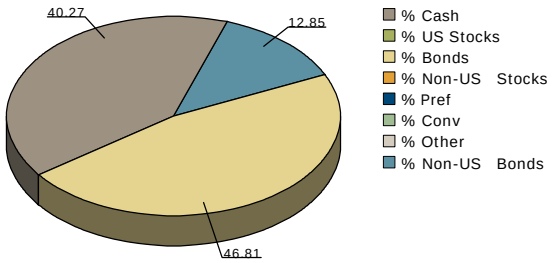
Columbia Strategic Income Inst3



Portfolio Region	
% United States	100.00
% Canada	0.00
% Latin America	0.00
% United Kingdom	0.00
% Eurozone	0.00
% Europe - ex Euro	0.00
% Europe - Emerging	0.00
% Africa	0.00
% Middle East	0.00
% Japan	0.00
% Australasia	0.00
% Asia - Developed	0.00
% Asia - Emerging	0.00

Portfolio Structure	
% Cash	40.27
% US Stocks	0.02
% Bonds	46.81
% Non-US Stocks	0.00
% Pref	0.00
% Conv	0.05
% Other	0.01
% Non-US Bonds	12.85

Sector Allocation	
% Basic Materials	34.33
% Communication Services	0.34
% Consumer Cyclical	24.18
% Consumer Defensive	0.00
% Healthcare	0.00
% Industrials	0.24
% Real Estate	0.00
% Technology	0.00
% Energy	0.00
% Financial Services	0.00
% Utilities	40.91

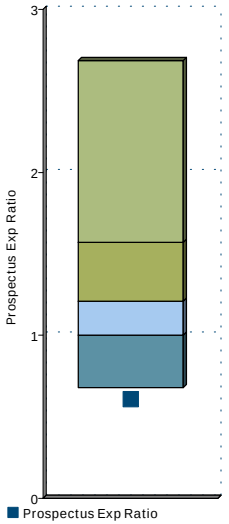
Credit Quality	
Avg Eff Duration	5.14
Effective Maturity	9.20
Avg Credit Quality	BB
AAA	9.40
AA	8.33
A	6.32
BBB	22.14
BB	14.25
B	20.02
Below B	2.66
NR/NA	16.87

Top Ten Holdings	
Euro BOBL Future Dec18	24.62%
US 10 Year Note (CBT) Dec18	16.42%
2 Year US Treasury Note Future Dec18	8.61%
10y Rtp 3.100000 04-Dec-2018	8.54%
3y Rtr 2.750000 20-Feb-2019	7.47%
3y Rtr 2.750000 22-Feb-2019	7.47%
Swp: Usd 2.740000 16-Feb-2023	7.30%
5y Rtp 3.100000 10-Dec-2018	6.40%
Ice: (Cdx.Na.Hy.31.V1)	4.49%
US Ultra Bond (CBT) Dec18	3.39%

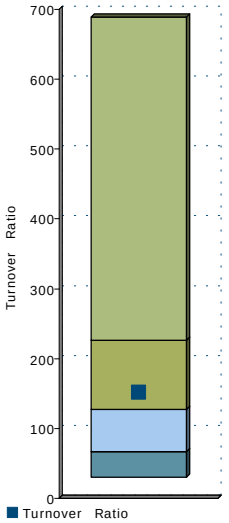
Portfolio Information	
Ticker	CPHUX
Morningstar Category	Nontraditional Bond
Avg Mkt Cap $MM	10963.36
Cat Med Mkt Cap $MM	5085.27
Net Assets $MM	4175.00
Turnover Ratio	152.00
% Assets in Top 10 Holdings	94.71
Total Number of Holdings	1109.00
Manager Name	Colin J. Lundgren
Manager Tenure	8.61
Fund Incept Date	04/21/1977
Prospectus Exp Ratio	0.61
Phone Number	800-345-6611

Portfolio Ratings	
Mstar Rating	★★★★★
3 Year Mstar Rating	★★★★
% Rank Cat 3 Yr	20
5 Year Mstar Rating	★★★★★
% Rank Cat 5 Yr	10
10 Year Mstar Rating	★★★★
% Rank Cat 10 Yr	16

Expense Ratio vs. Peer Group



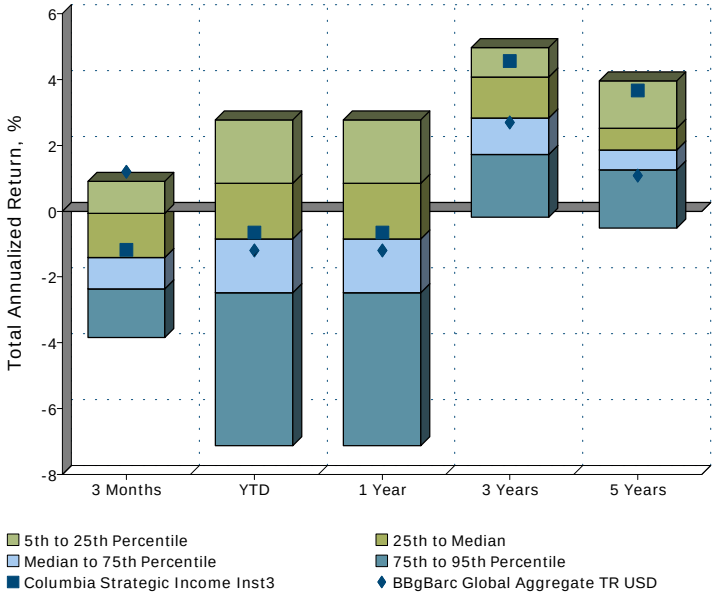
Turnover Ratio vs. Peer Group



Investment Strategy Summary

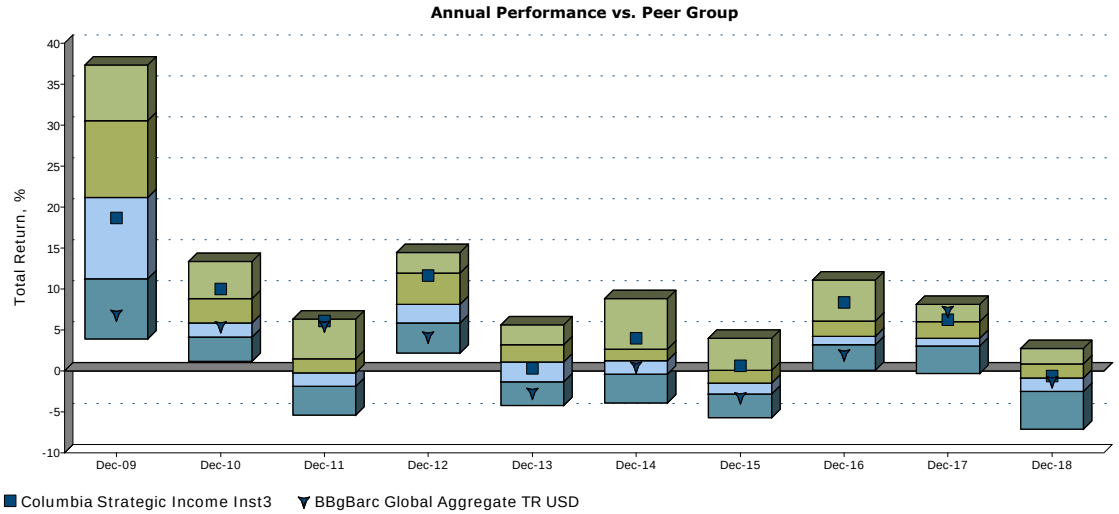
The investment seeks total return, consisting of current income and capital appreciation. Under normal circumstances, the fund has substantial exposure to fixed-income/debt markets. It may invest in U.S. government bonds and notes, U.S. and international bonds and notes, investment grade corporate (or 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 vs. Peer Group

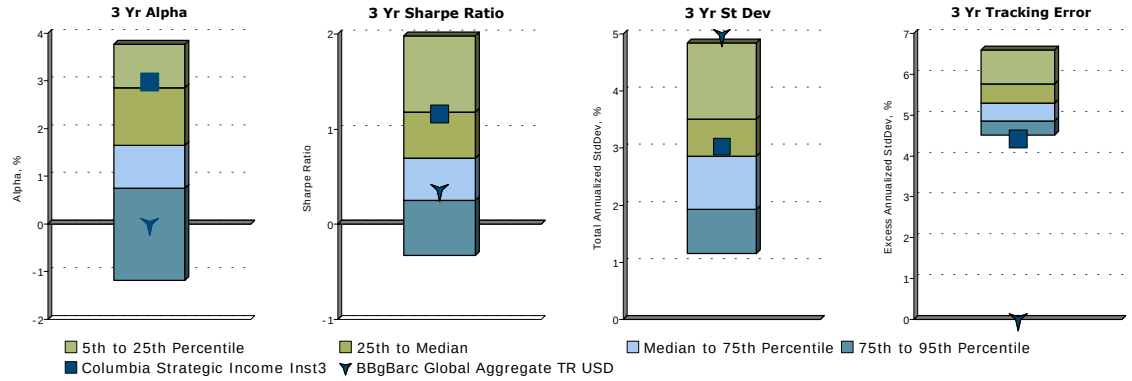


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Columbia Strategic Income Inst3	-1.18	-0.64	-0.64	4.57	3.66
BBgBarc Global Aggregate TR USD	1.20	-1.20	-1.20	2.70	1.08
Universe(5%)	0.90	2.77	2.77	4.96	3.96
Universe(25%)	-0.08	0.84	0.84	4.08	2.51
Universe(Median)	-1.41	-0.84	-0.84	2.83	1.86
Universe(75%)	-2.37	-2.49	-2.49	1.73	1.25
Universe(95%)	-3.85	-7.13	-7.13	-0.18	-0.51

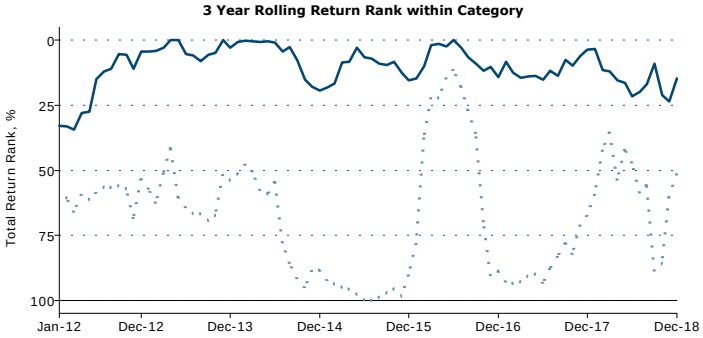
Columbia Strategic Income Inst3

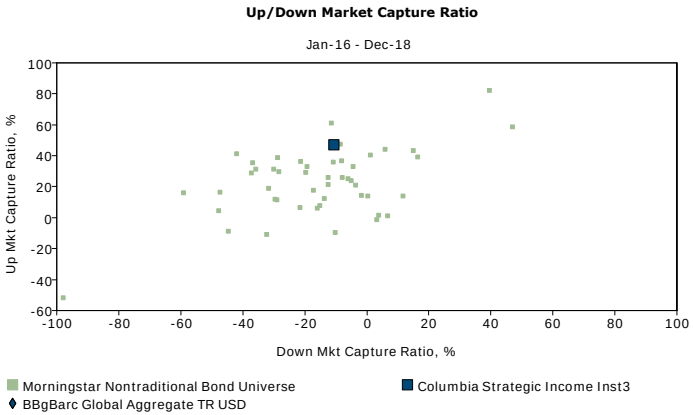


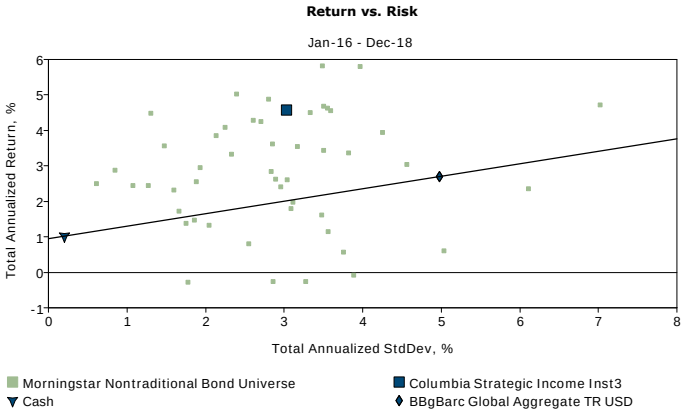
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Columbia Strategic Income Inst3	18.67	9.96	6.11	11.60	0.32	3.99	0.66	8.34	6.22	-0.64
BBgBarc Global Aggregate TR USD	6.93	5.54	5.64	4.32	-2.60	0.59	-3.15	2.09	7.39	-1.20



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Columbia Strategic Income Inst3	2.97	0.30	23.48	1.16	3.03	4.42	10.39
BBgBarc Global Aggregate TR USD	0.00	1.00	100.00	0.36	4.97	0.00	1.29
Universe(5%)	3.78	0.35	32.37	1.98	4.85	6.59	351.90
Universe(25%)	2.86	0.21	14.86	1.18	3.50	5.77	11.70
Universe(Median)	1.65	0.09	5.04	0.69	2.86	5.29	4.09
Universe(75%)	0.75	-0.01	1.13	0.25	1.93	4.85	1.69
Universe(95%)	-1.18	-0.08	0.09	-0.33	1.15	4.51	-0.08







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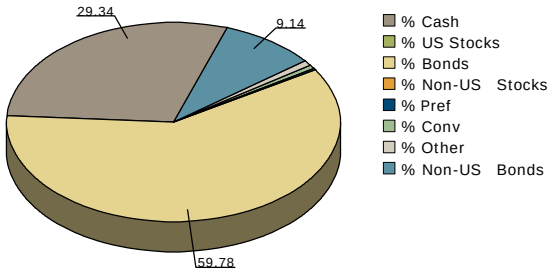
PIMCO Long Duration Total Return Instl



Portfolio Region	
% United States	100.00
% Canada	0.00
% Latin America	0.00
% United Kingdom	0.00
% Eurozone	0.00
% Europe - ex Euro	0.00
% Europe - Emerging	0.00
% Africa	0.00
% Middle East	0.00
% Japan	0.00
% Australasia	0.00
% Asia - Developed	0.00
% Asia - Emerging	0.00

Portfolio Structure	
% Cash	29.34
% US Stocks	0.00
% Bonds	59.78
% Non-US Stocks	0.00
% Pref	0.23
% Conv	0.54
% Other	0.97
% Non-US Bonds	9.14

Sector Allocation	
% Basic Materials	0.00
% Communication Services	0.00
% Consumer Cyclical	0.00
% Consumer Defensive	0.00
% Healthcare	0.00
% Industrials	0.00
% Real Estate	0.00
% Technology	0.00
% Energy	0.00
% Financial Services	100.00
% Utilities	0.00

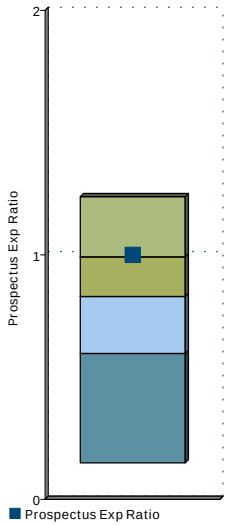
Credit Quality	
Avg Eff Duration	13.81
Effective Maturity	24.51
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
Irs Usd 2.64300 03/16/21-1y (Grn) Cme	51.34%
Irs Usd 2.60000 03/16/20-1y (Red) Cme	51.28%
US Ultra Bond (CBT) Dec18	39.07%
90 Day Eurodollar Future Sept19	20.43%
Irs Usd 2.16000 04/27/18-1y (Wht) Cme	17.82%
2 Year US Treasury Note Future Dec18	17.28%
US 10 Year Ultra Future Dec18	15.71%
US 10 Year Note (CBT) Dec18	11.47%
Irs Gbp 1.00000 09/19/18-1y (Wht) Lch	7.70%
Irs Gbp 1.00000 09/18/19-1y (Red) Lch	7.68%

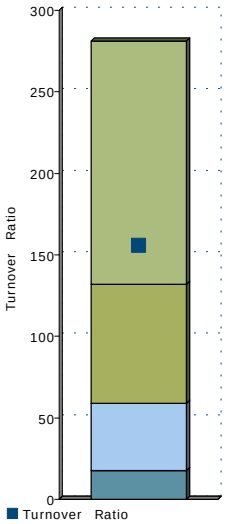
Portfolio Information	
Ticker	PLRIX
Morningstar Category	Long-term Bond
Avg Mkt Cap $MM	47300.88
Cat Med Mkt Cap $MM	47300.88
Net Assets $MM	3262.00
Turnover Ratio	156.00
% Assets in Top 10 Holdings	239.78
Total Number of Holdings	1131.00
Manager Name	Stephen A. Rodosky
Manager Tenure	11.43
Fund Incept Date	08/31/2006
Prospectus Exp Ratio	1.00
Phone Number	888-877-4626

Portfolio Ratings	
Mstar Rating	★★★★
3 Year Mstar Rating	★★★★★
% Rank Cat 3 Yr	9
5 Year Mstar Rating	★★★★
% Rank Cat 5 Yr	18
10 Year Mstar Rating	★★★
% Rank Cat 10 Yr	40

Expense Ratio vs. Peer Group



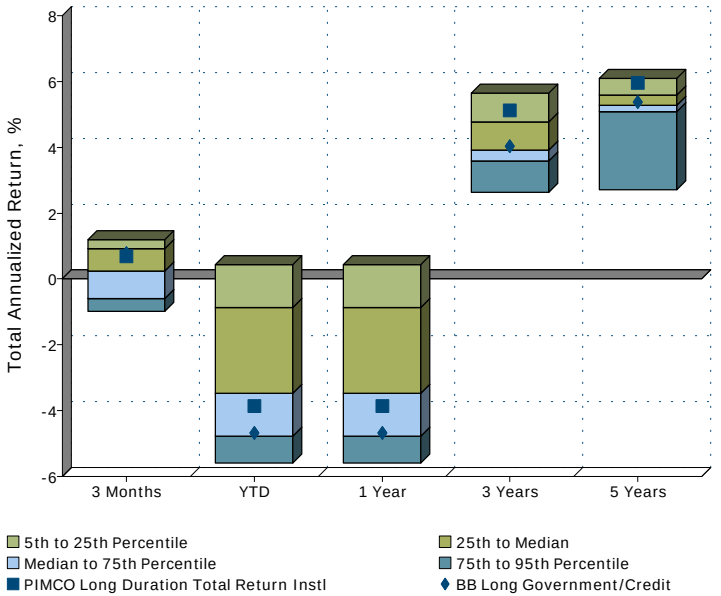
Turnover Ratio vs. Peer Group



Investment Strategy Summary

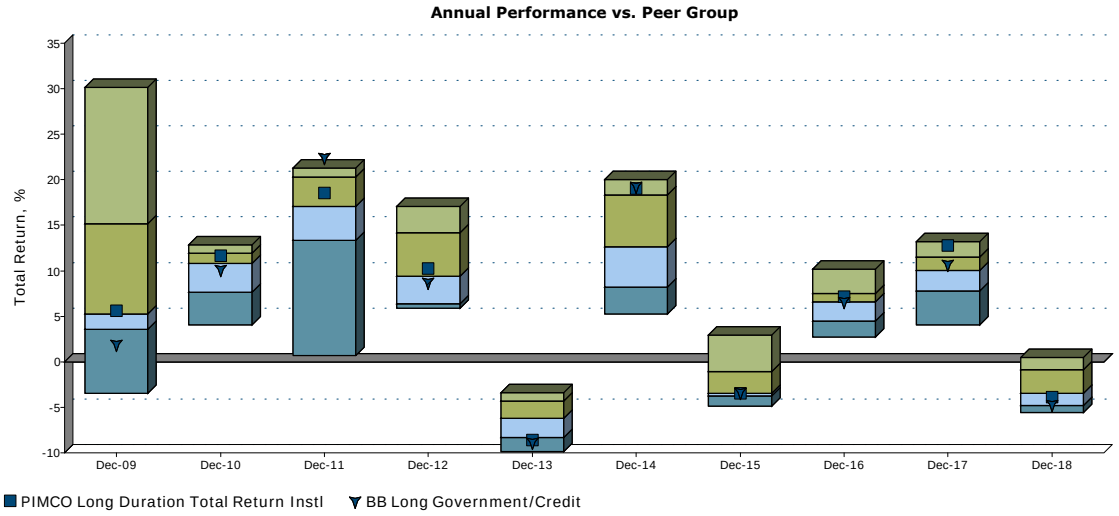
The investment seeks maximum total return, consistent with prudent investment management. The fund invests at least 65% of its total assets in a diversified portfolio of Fixed Income Instruments of varying maturities, which may be represented by forwards or derivatives such as options, futures contracts 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 vs. Peer Group

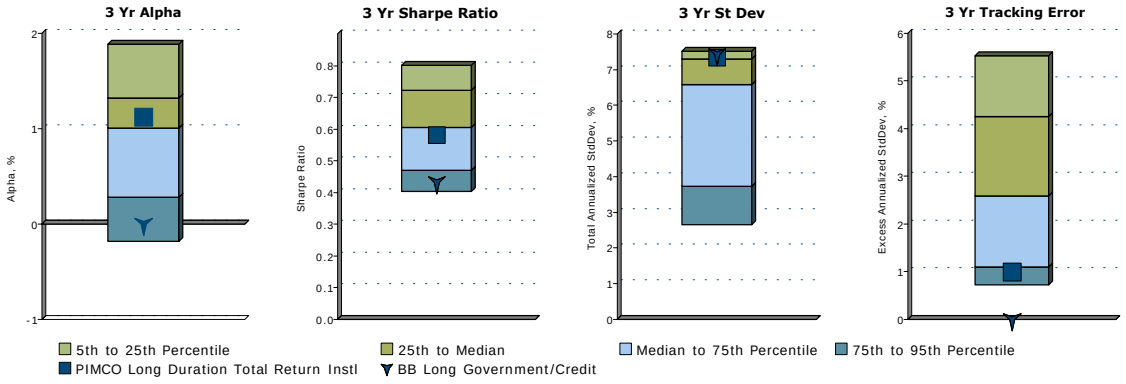


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
PIMCO Long Duration Total Return Instl	0.69	-3.86	-3.86	5.13	5.95
BB Long Government/Credit	0.78	-4.68	-4.68	4.03	5.37
Universe(5%)	1.19	0.44	0.44	5.64	6.09
Universe(25%)	0.93	-0.87	-0.87	4.78	5.58
Universe(Median)	0.24	-3.47	-3.47	3.92	5.27
Universe(75%)	-0.60	-4.78	-4.78	3.58	5.07
Universe(95%)	-0.98	-5.60	-5.60	2.63	2.72

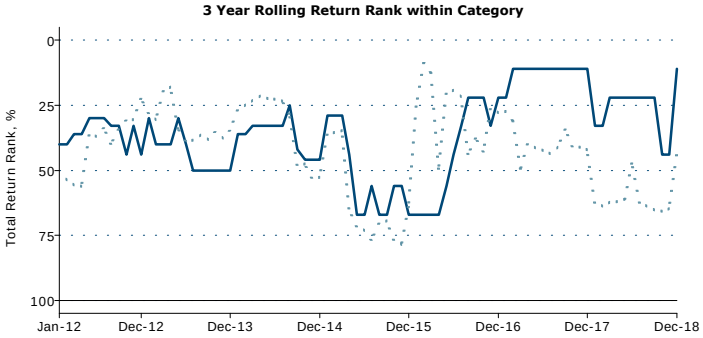
PIMCO Long Duration Total Return Instl

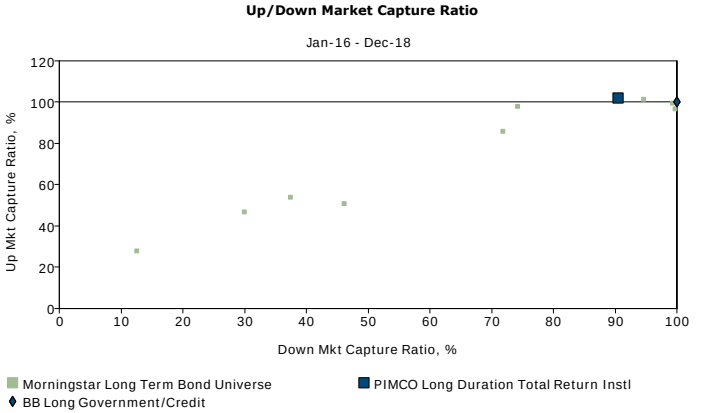


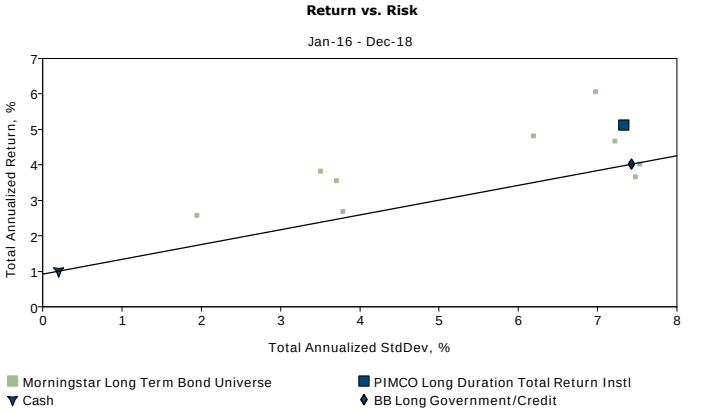
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
PIMCO Long Duration Total Return Instl	5.62	11.64	18.57	10.28	-8.56	19.02	-3.44	7.18	12.75	-3.86
BB Long Government/Credit	1.92	10.16	22.49	8.78	-8.83	19.31	-3.30	6.67	10.71	-4.68



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
PIMCO Long Duration Total Return Instl	1.12	0.98	98.21	0.58	7.33	1.00	1.94
BB Long Government/Credit	0.00	1.00	100.00	0.43	7.43	0.00	1.30
Universe(5%)	1.89	1.00	99.04	0.80	7.51	5.53	6.07
Universe(25%)	1.32	0.97	97.74	0.72	7.30	4.26	3.25
Universe(Median)	1.00	0.84	91.19	0.60	6.58	2.59	2.15
Universe(75%)	0.28	0.45	86.36	0.47	3.72	1.11	1.77
Universe(95%)	-0.18	0.30	63.62	0.40	2.65	0.73	1.19







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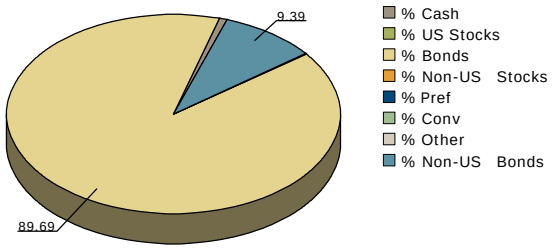
Vanguard Long-Term Bond Index Investor



Portfolio Region	
% United States	NA
% Canada	NA
% Latin America	NA
% United Kingdom	NA
% Eurozone	NA
% Europe - ex Euro	NA
% Europe - Emerging	NA
% Africa	NA
% Middle East	NA
% Japan	NA
% Australasia	NA
% Asia - Developed	NA
% Asia - Emerging	NA

Portfolio Structure	
% Cash	0.86
% US Stocks	0.00
% Bonds	89.69
% Non-US Stocks	0.00
% Pref	0.00
% Conv	0.06
% Other	0.00
% Non-US Bonds	9.39

Sector Allocation	
% Basic Materials	NA
% Communication Services	NA
% Consumer Cyclical	NA
% Consumer Defensive	NA
% Healthcare	NA
% Industrials	NA
% Real Estate	NA
% Technology	NA
% Energy	NA
% Financial Services	NA
% Utilities	NA

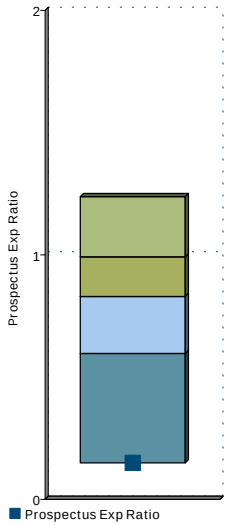
Credit Quality	
Avg Eff Duration	14.65
Effective Maturity	24.40
Avg Credit Quality	A
AAA	41.39
AA	7.70
A	22.31
BBB	28.60
BB	0.00
B	0.00
Below B	0.00
NR/NA	0.00

Top Ten Holdings	
United States Treasury Bonds 3.75%	1.44%
United States Treasury Bonds 3.62%	1.43%
United States Treasury Bonds 3.38%	1.35%
United States Treasury Bonds 3%	1.32%
United States Treasury Bonds 3%	1.31%
United States Treasury Bonds 3%	1.31%
United States Treasury Bonds 2.88%	1.29%
United States Treasury Bonds 3.12%	1.28%
United States Treasury Bonds 3.12%	1.25%
United States Treasury Bonds 2.88%	1.23%

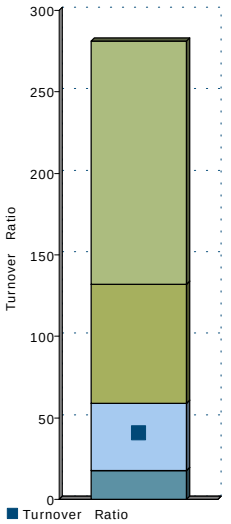
Portfolio Information	
Ticker	VBLTX
Morningstar Category	Long-term Bond
Avg Mkt Cap $MM	NA
Cat Med Mkt Cap $MM	NA
Net Assets $MM	11194.00
Turnover Ratio	41.00
% Assets in Top 10 Holdings	13.20
Total Number of Holdings	2158.00
Manager Name	Joshua C. Barrickman
Manager Tenure	5.86
Fund Incept Date	03/01/1994
Prospectus Exp Ratio	0.15
Phone Number	800-662-7447

Portfolio Ratings	
Mstar Rating	★★
3 Year Mstar Rating	★★
% Rank Cat 3 Yr	57
5 Year Mstar Rating	★★★
% Rank Cat 5 Yr	48
10 Year Mstar Rating	★★
% Rank Cat 10 Yr	87

Expense Ratio vs. Peer Group



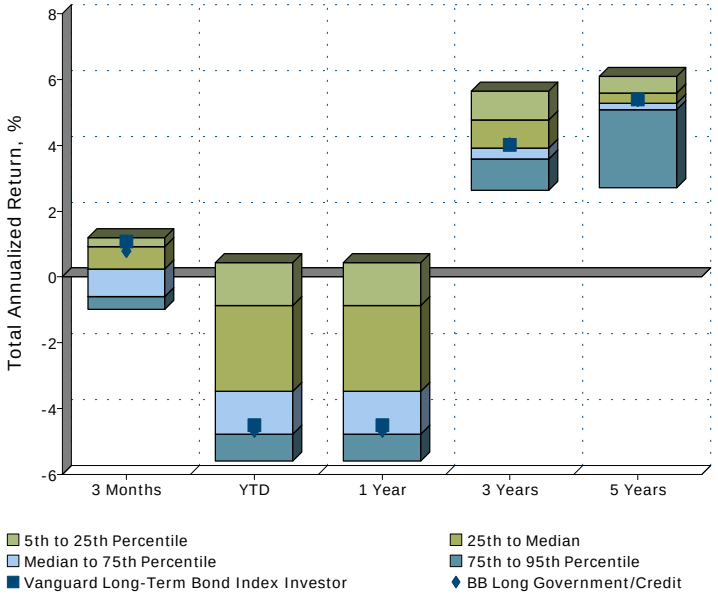
Turnover Ratio vs. Peer Group



Investment Strategy Summary

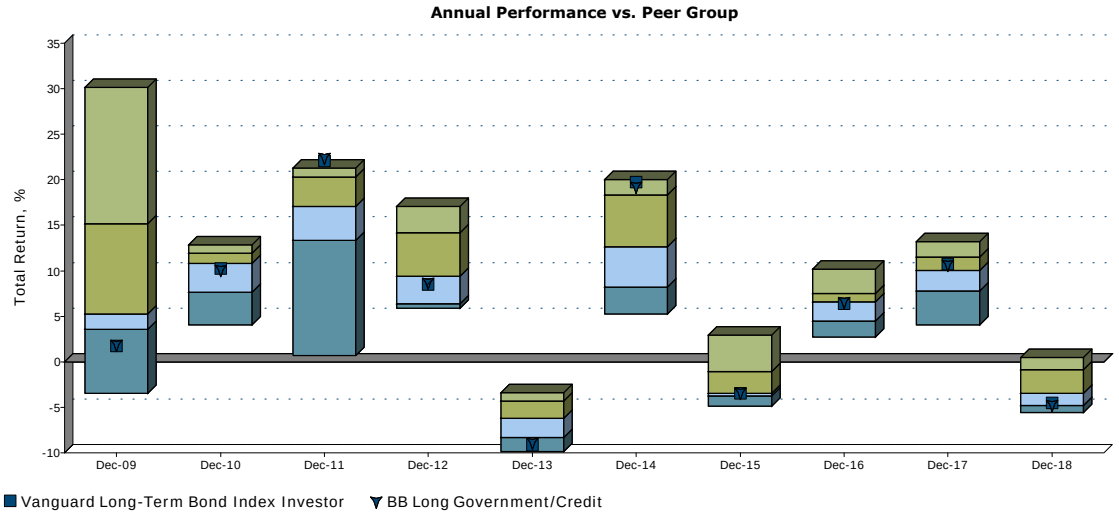
The investment seeks to track the performance of the Bloomberg Barclays U.S. Long Government/Credit Float Adjusted Index. Bloomberg Barclays U.S. Long Government/Credit Float Adjusted Index includes all medium and larger issues of U.S. government, investment-grade corporate, and investment-grade international 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 vs. Peer Group

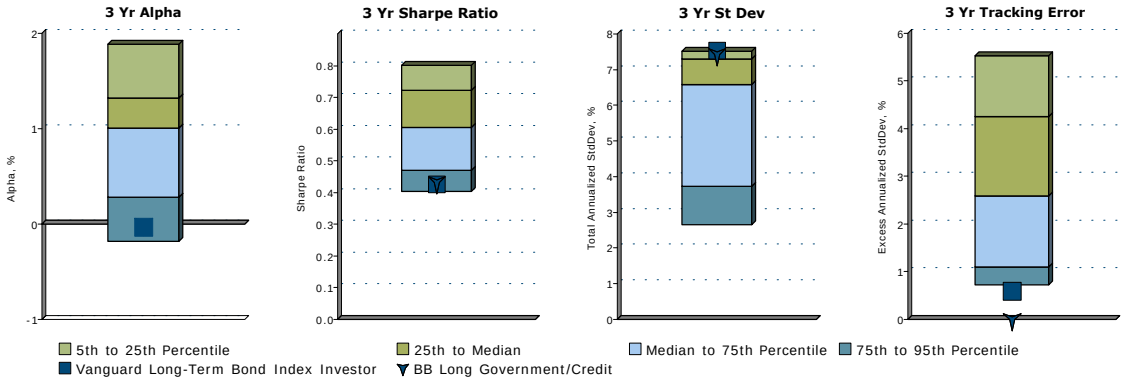


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Vanguard Long-Term Bond Index Investor	1.09	-4.51	-4.51	4.02	5.40
BB Long Government/Credit	0.78	-4.68	-4.68	4.03	5.37
Universe(5%)	1.19	0.44	0.44	5.64	6.09
Universe(25%)	0.93	-0.87	-0.87	4.78	5.58
Universe(Median)	0.24	-3.47	-3.47	3.92	5.27
Universe(75%)	-0.60	-4.78	-4.78	3.58	5.07
Universe(95%)	-0.98	-5.60	-5.60	2.63	2.72

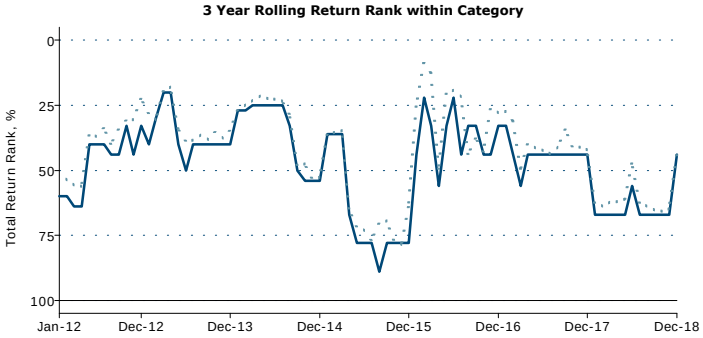
Vanguard Long-Term Bond Index Investor

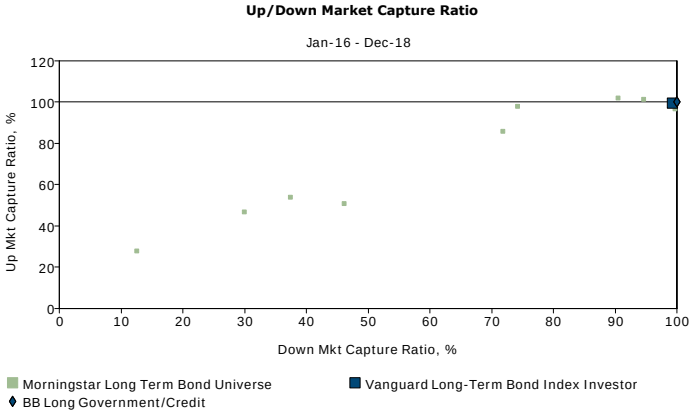


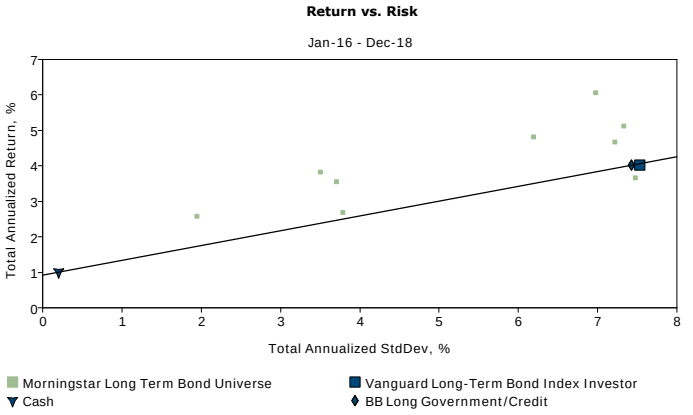
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vanguard Long-Term Bond Index Investor	1.76	10.27	22.05	8.49	-9.13	19.72	-3.47	6.41	10.76	-4.51
BB Long Government/Credit	1.92	10.16	22.49	8.78	-8.83	19.31	-3.30	6.67	10.71	-4.68



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Vanguard Long-Term Bond Index Investor	-0.03	1.01	99.40	0.43	7.53	0.59	1.27
BB Long Government/Credit	0.00	1.00	100.00	0.43	7.43	0.00	1.30
Universe(5%)	1.89	1.00	99.04	0.80	7.51	5.53	6.07
Universe(25%)	1.32	0.97	97.74	0.72	7.30	4.26	3.25
Universe(Median)	1.00	0.84	91.19	0.60	6.58	2.59	2.15
Universe(75%)	0.28	0.45	86.36	0.47	3.72	1.11	1.77
Universe(95%)	-0.18	0.30	63.62	0.40	2.65	0.73	1.19







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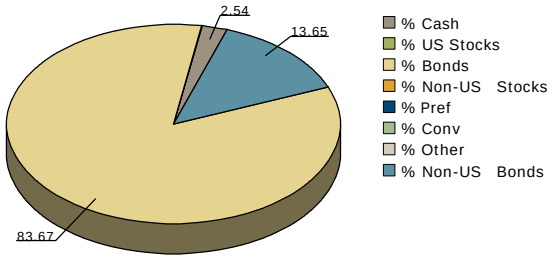
PGIM High Yield R6



Portfolio Region	
% United States	93.96
% Canada	6.04
% Latin America	0.00
% United Kingdom	0.00
% Eurozone	0.00
% Europe - ex Euro	0.00
% Europe - Emerging	0.00
% Africa	0.00
% Middle East	0.00
% Japan	0.00
% Australasia	0.00
% Asia - Developed	0.00
% Asia - Emerging	0.00

Portfolio Structure	
% Cash	2.54
% US Stocks	0.10
% Bonds	83.67
% Non-US Stocks	0.01
% Pref	0.03
% Conv	0.00
% Other	0.00
% Non-US Bonds	13.65

Sector Allocation	
% Basic Materials	0.00
% Communication Services	0.00
% Consumer Cyclical	1.53
% Consumer Defensive	0.00
% Healthcare	0.00
% Industrials	0.00
% Real Estate	0.00
% Technology	0.00
% Energy	6.25
% Financial Services	0.00
% Utilities	92.21

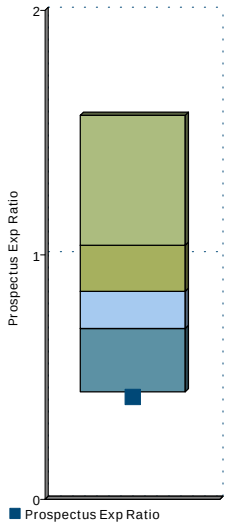
Credit Quality	
Avg Eff Duration	3.88
Effective Maturity	NA
Avg Credit Quality	B
AAA	10.26
AA	0.00
A	0.00
BBB	4.45
BB	32.71
B	39.86
Below B	11.70
NR/NA	1.03

Top Ten Holdings	
2 Year US Treasury Note Future Mar19	3.52%
US 10 Year Note (CBT) Mar19	3.34%
First Data Corporation 7%	1.68%
US 5 Year Note (CBT) Mar19	1.63%
DISH DBS Corporation 7.75%	1.35%
Wind Tre S.p.A. 5%	1.11%
Calpine Corporation 5.75%	1.03%
Bombardier Inc. 7.5%	0.99%
Wand Merger Corporation 9.12%	0.84%
Clear Channel Worldwide Holdings Inc. 7.62%	0.79%

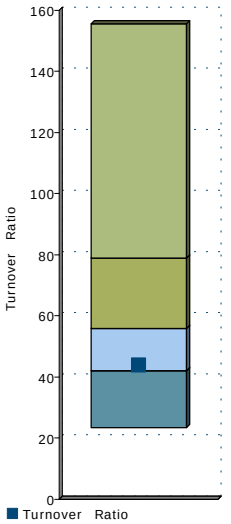
Portfolio Information	
Ticker	PHYQX
Morningstar Category	High Yield Bond
Avg Mkt Cap $MM	9718.33
Cat Med Mkt Cap $MM	3475.71
Net Assets $MM	7300.00
Turnover Ratio	44.00
% Assets in Top 10 Holdings	16.29
Total Number of Holdings	509.00
Manager Name	Robert Spano
Manager Tenure	11.22
Fund Incept Date	03/29/1979
Prospectus Exp Ratio	0.42
Phone Number	800-225-1852

Portfolio Ratings	
Mstar Rating	★★★★★
3 Year Mstar Rating	★★★★★
% Rank Cat 3 Yr	9
5 Year Mstar Rating	★★★★★
% Rank Cat 5 Yr	4
10 Year Mstar Rating	★★★★
% Rank Cat 10 Yr	22

Expense Ratio vs. Peer Group



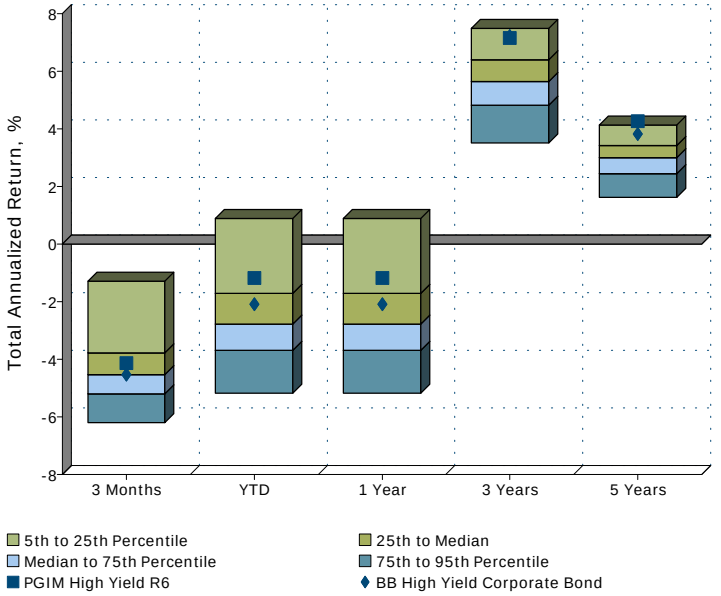
Turnover Ratio vs. Peer Group



Investment Strategy Summary

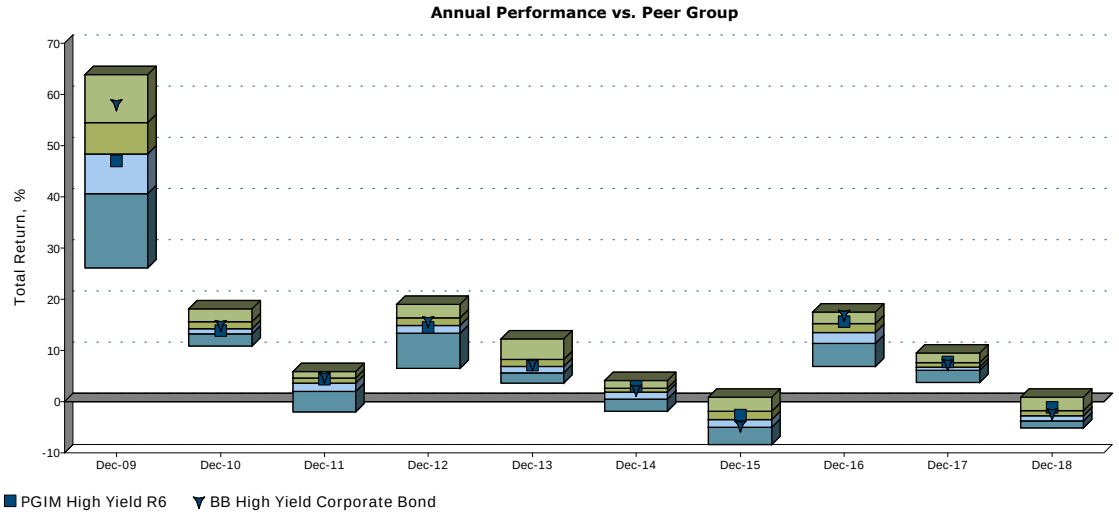
The investment seeks to maximize current income; and capital appreciation is a secondary objective. The fund normally invests at least 80% of its investable assets in a diversified portfolio of high yield fixed-income instruments rated Ba or lower by Moody's Investors Service (Moody's) or BB or lower 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 vs. Peer Group

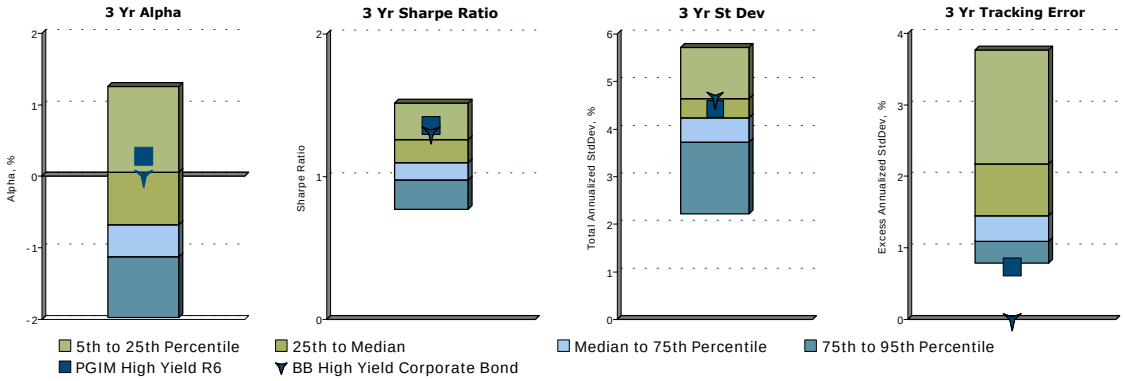


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
PGIM High Yield R6	-4.14	-1.18	-1.18	7.16	4.28
BB High Yield Corporate Bond	-4.53	-2.08	-2.08	7.23	3.83
Universe(5%)	-1.29	0.89	0.89	7.48	4.14
Universe(25%)	-3.78	-1.72	-1.72	6.41	3.41
Universe(Median)	-4.54	-2.77	-2.77	5.63	2.99
Universe(75%)	-5.21	-3.70	-3.70	4.82	2.44
Universe(95%)	-6.20	-5.18	-5.18	3.52	1.62

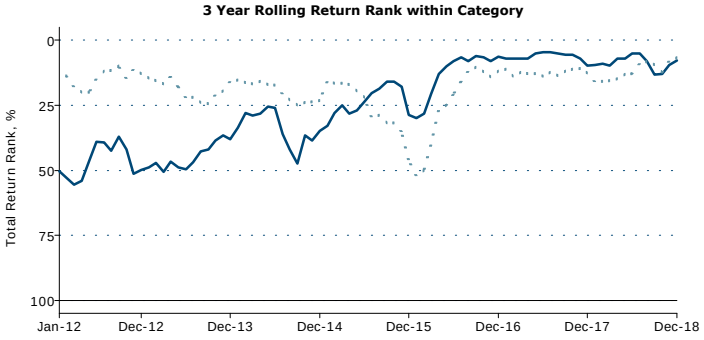
PGIM High Yield R6

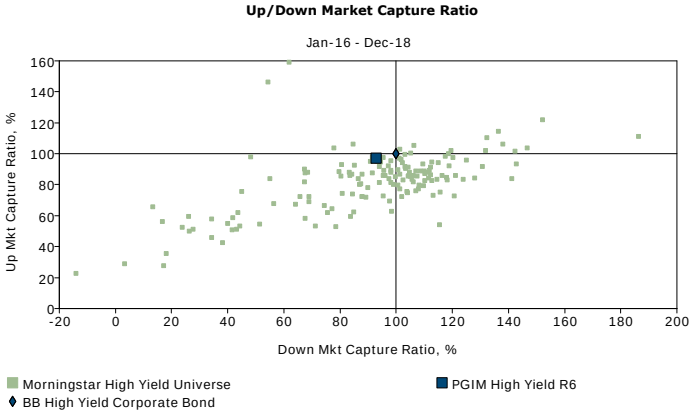


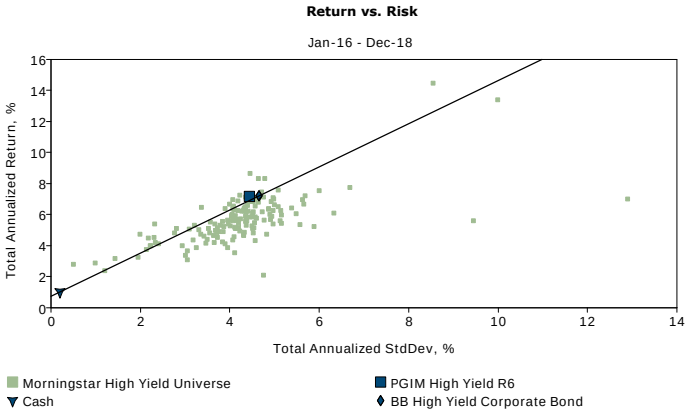
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
PGIM High Yield R6	46.99	13.84	4.43	14.45	7.15	2.95	-2.68	15.61	7.70	-1.18
BB High Yield Corporate Bond	58.21	15.12	4.98	15.81	7.44	2.45	-4.47	17.13	7.50	-2.08



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
PGIM High Yield R6	0.28	0.94	97.72	1.36	4.43	0.74	12.69
BB High Yield Corporate Bond	0.00	1.00	100.00	1.31	4.66	0.00	11.30
Universe(5%)	1.25	1.17	97.52	1.52	5.72	3.77	23.29
Universe(25%)	0.06	0.95	95.38	1.26	4.64	2.17	10.79
Universe(Median)	-0.68	0.88	92.55	1.10	4.23	1.45	7.70
Universe(75%)	-1.12	0.76	86.69	0.98	3.73	1.09	5.72
Universe(95%)	-1.97	0.41	48.26	0.77	2.22	0.79	3.51







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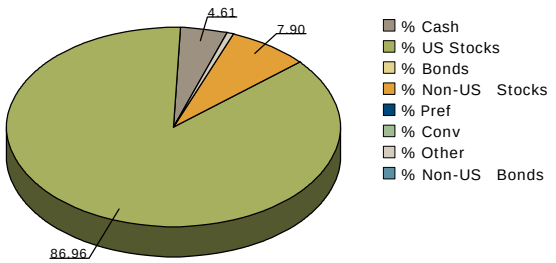
American Funds Washington Mutual R6



Portfolio Region	
% United States	91.67
% Canada	1.61
% Latin America	0.00
% United Kingdom	3.50
% Eurozone	0.04
% Europe - ex Euro	2.67
% Europe - Emerging	0.00
% Africa	0.00
% Middle East	0.00
% Japan	0.00
% Australasia	0.00
% Asia - Developed	0.51
% Asia - Emerging	0.00

Portfolio Structure	
% Cash	4.61
% US Stocks	86.96
% Bonds	0.00
% Non-US Stocks	7.90
% Pref	0.00
% Conv	0.00
% Other	0.53
% Non-US Bonds	0.00

Sector Allocation	
% Basic Materials	4.30
% Communication Services	4.64
% Consumer Cyclical	7.43
% Consumer Defensive	6.24
% Healthcare	15.13
% Industrials	12.48
% Real Estate	1.41
% Technology	17.63
% Energy	11.30
% Financial Services	16.68
% Utilities	2.77

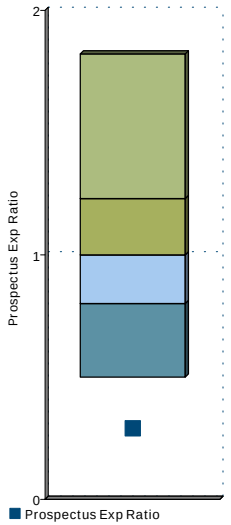
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
Microsoft Corp	6.22%
The Home Depot Inc	3.57%
Intel Corp	2.76%
Boeing Co	2.74%
Royal Dutch Shell PLC ADR Class B	2.54%
Merck & Co Inc	2.48%
Broadcom Inc	2.33%
DowDuPont Inc	2.25%
Lockheed Martin Corp	2.23%
Verizon Communications Inc	2.21%

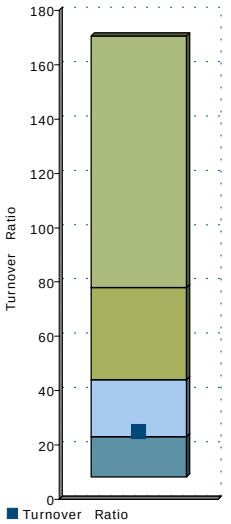
Portfolio Information	
Ticker	RWMGX
Morningstar Category	Large Blend
Avg Mkt Cap $MM	120066.26
Cat Med Mkt Cap $MM	161637.69
Net Assets $MM	100967.00
Turnover Ratio	25.00
% Assets in Top 10 Holdings	29.33
Total Number of Holdings	197.00
Manager Name	Alan N. Berro
Manager Tenure	21.52
Fund Incept Date	07/31/1952
Prospectus Exp Ratio	0.29
Phone Number	800-421-4225

Portfolio Ratings	
Mstar Rating	★★★★★
3 Year Mstar Rating	★★★★★
% Rank Cat 3 Yr	5
5 Year Mstar Rating	★★★★★
% Rank Cat 5 Yr	15
10 Year Mstar Rating	★★★★
% Rank Cat 10 Yr	43

Expense Ratio vs. Peer Group



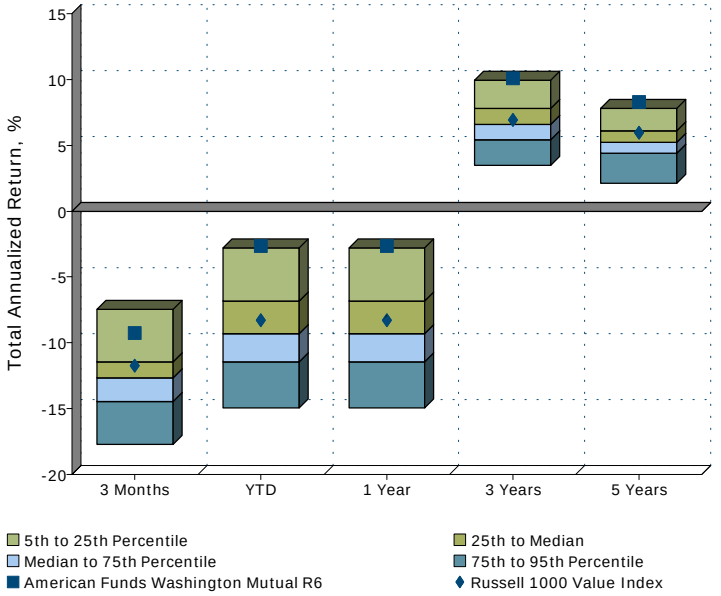
Turnover Ratio vs. Peer Group



Investment Strategy Summary

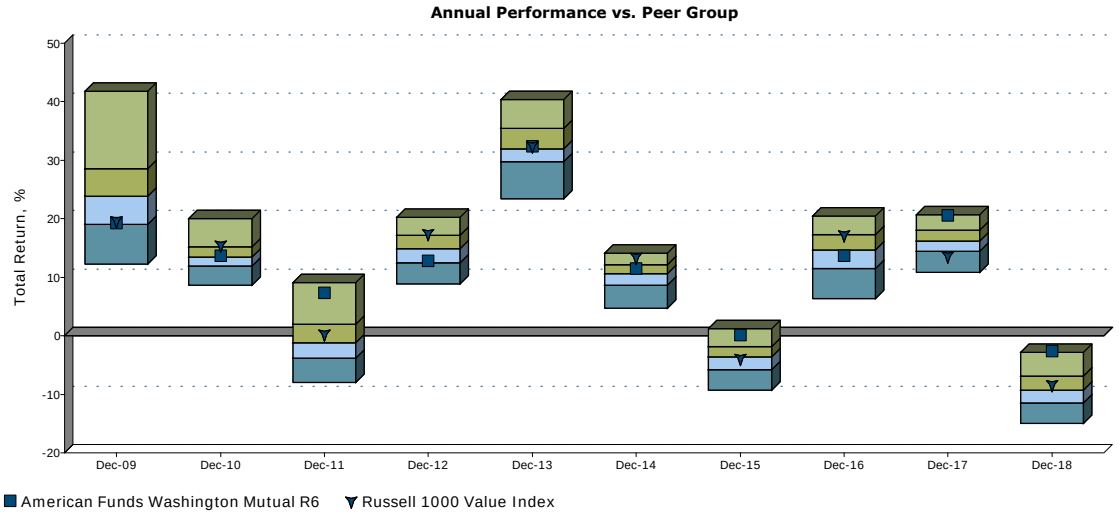
The investment seeks to produce income and to provide an opportunity for growth of principal consistent with sound common stock investing. The fund invests primarily in common stocks of established companies that are listed on, or meet the financial listing requirements of, the New York Stock Exchange 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 vs. Peer Group

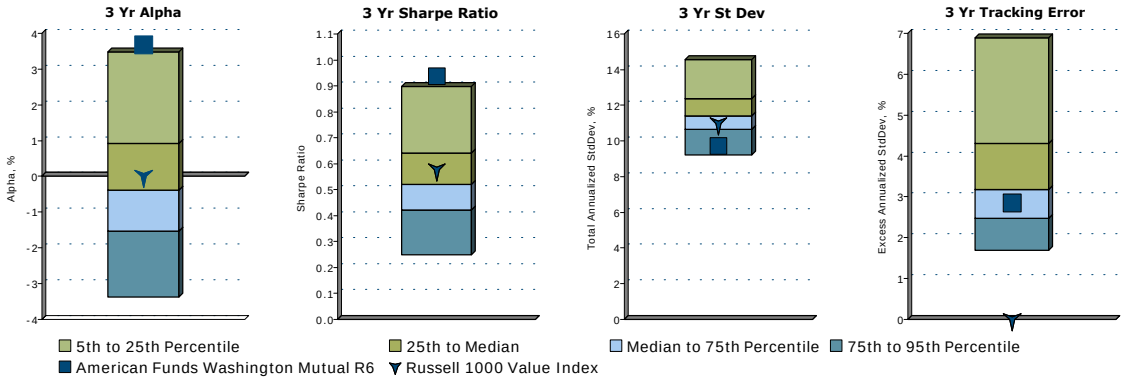


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
American Funds Washington Mutual R6	-9.25	-2.66	-2.66	10.09	8.30
Russell 1000 Value Index	-11.72	-8.27	-8.27	6.95	5.95
Universe(5%)	-7.44	-2.80	-2.80	9.93	7.82
Universe(25%)	-11.46	-6.84	-6.84	7.80	6.12
Universe(Median)	-12.66	-9.33	-9.33	6.60	5.23
Universe(75%)	-14.43	-11.42	-11.42	5.42	4.42
Universe(95%)	-17.74	-14.93	-14.93	3.47	2.13

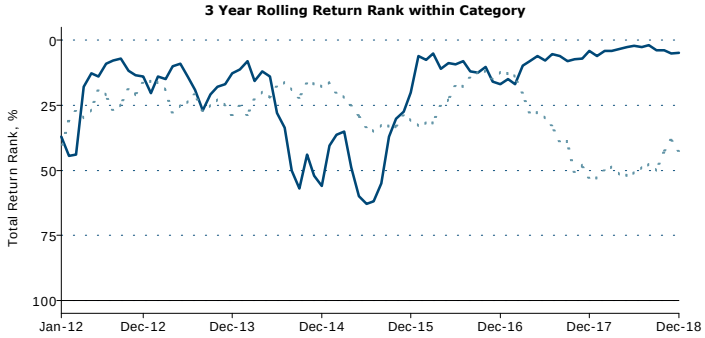
American Funds Washington Mutual R6

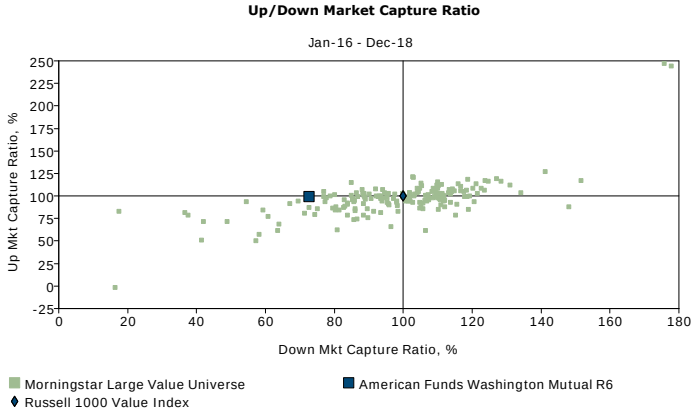


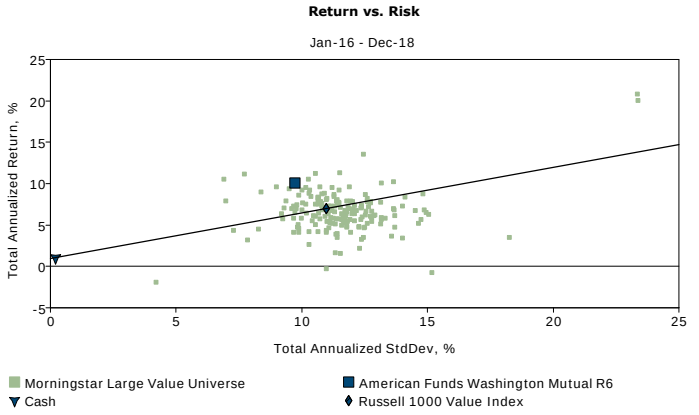
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
American Funds Washington Mutual R6	19.24	13.69	7.35	12.85	32.34	11.53	0.12	13.73	20.54	-2.66
Russell 1000 Value Index	19.69	15.51	0.39	17.51	32.53	13.45	-3.83	17.34	13.66	-8.27



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
American Funds Washington Mutual R6	3.67	0.86	94.04	0.94	9.73	2.84	4.03
Russell 1000 Value Index	0.00	1.00	100.00	0.58	10.98	0.00	1.66
Universe(5%)	3.48	1.22	97.78	0.90	14.57	6.89	3.64
Universe(25%)	0.93	1.08	96.29	0.64	12.38	4.31	1.97
Universe(Median)	-0.39	1.01	92.99	0.52	11.41	3.18	1.43
Universe(75%)	-1.53	0.92	88.58	0.42	10.64	2.48	1.04
Universe(95%)	-3.38	0.72	70.83	0.25	9.21	1.70	0.52







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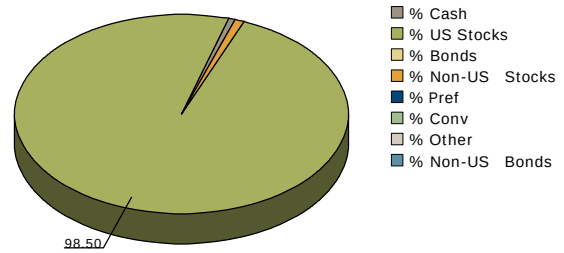
Vanguard Growth Index Institutional



Portfolio Region	
% United States	99.04
% Canada	0.18
% Latin America	0.00
% United Kingdom	0.78
% Eurozone	0.00
% Europe - ex Euro	0.00
% Europe - Emerging	0.00
% Africa	0.00
% Middle East	0.00
% Japan	0.00
% Australasia	0.00
% Asia - Developed	0.00
% Asia - Emerging	0.00

Portfolio Structure	
% Cash	0.53
% US Stocks	98.50
% Bonds	0.01
% Non-US Stocks	0.96
% Pref	0.00
% Conv	0.00
% Other	0.00
% Non-US Bonds	0.00

Sector Allocation	
% Basic Materials	2.38
% Communication Services	3.06
% Consumer Cyclical	19.60
% Consumer Defensive	5.33
% Healthcare	12.54
% Industrials	10.88
% Real Estate	4.02
% Technology	29.60
% Energy	3.50
% Financial Services	9.10
% Utilities	0.00

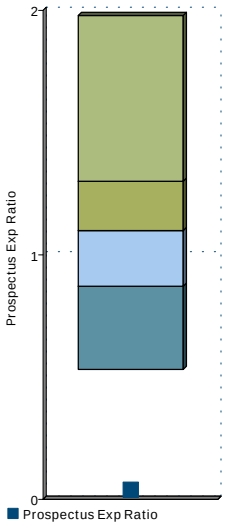
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
Apple Inc	6.87%
Amazon.com Inc	6.20%
Facebook Inc A	3.00%
Alphabet Inc A	2.93%
Alphabet Inc Class C	2.89%
Visa Inc Class A	2.23%
The Home Depot Inc	1.83%
Boeing Co	1.67%
Mastercard Inc A	1.64%
Comcast Corp Class A	1.58%

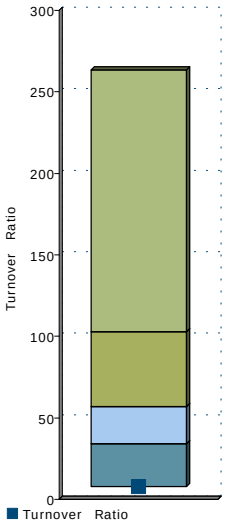
Portfolio Information	
Ticker	VIGIX
Morningstar Category	Large Growth
Avg Mkt Cap $MM	90412.56
Cat Med Mkt Cap $MM	169181.66
Net Assets $MM	73064.00
Turnover Ratio	8.00
% Assets in Top 10 Holdings	30.83
Total Number of Holdings	315.00
Manager Name	Gerard C. O'Reilly
Manager Tenure	24.02
Fund Incept Date	11/02/1992
Prospectus Exp Ratio	0.04
Phone Number	888-809-8102

Portfolio Ratings	
Mstar Rating	★★★★
3 Year Mstar Rating	★★★
% Rank Cat 3 Yr	46
5 Year Mstar Rating	★★★
% Rank Cat 5 Yr	41
10 Year Mstar Rating	★★★★
% Rank Cat 10 Yr	35

Expense Ratio vs. Peer Group



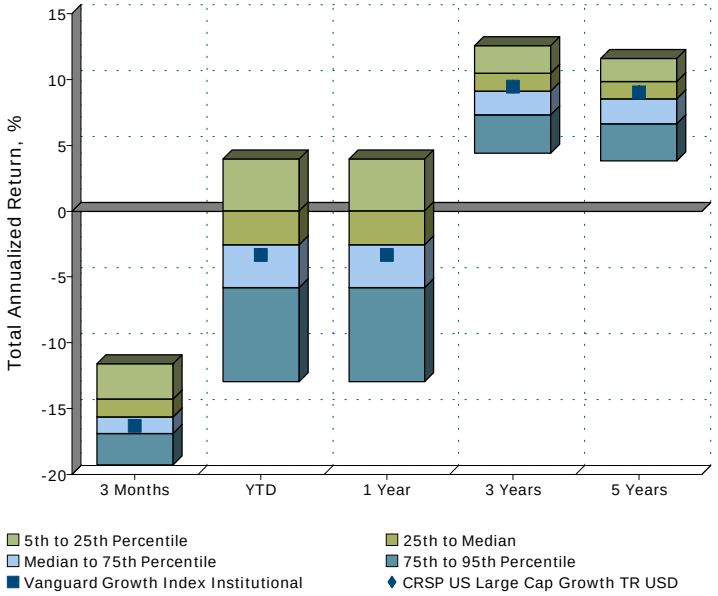
Turnover Ratio vs. Peer Group



Investment Strategy Summary

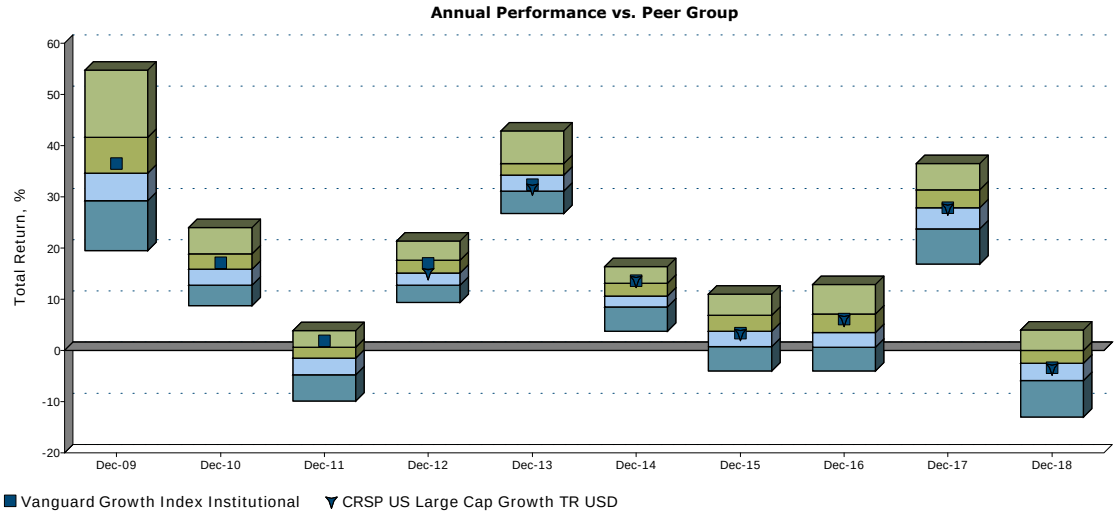
The investment seeks to track the performance of a benchmark index that measures the investment return of large-capitalization growth stocks. The fund employs an indexing investment approach designed to track the performance of the CRSP US Large Cap Growth Index, a broadly diversified index predominantly 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.

Performance vs. Peer Group

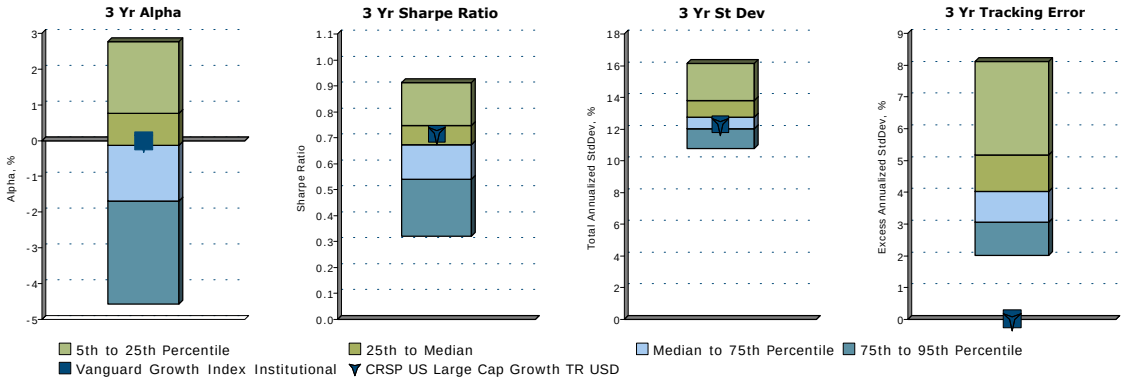


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Vanguard Growth Index Institutional	-16.31	-3.33	-3.33	9.46	9.01
CRSP US Large Cap Growth TR USD	-16.32	-3.34	-3.34	9.47	9.05
Universe(5%)	-11.57	3.96	3.96	12.58	11.62
Universe(25%)	-14.26	0.04	0.04	10.48	9.83
Universe(Median)	-15.61	-2.56	-2.56	9.11	8.53
Universe(75%)	-16.87	-5.82	-5.82	7.32	6.65
Universe(95%)	-19.28	-12.96	-12.96	4.41	3.80

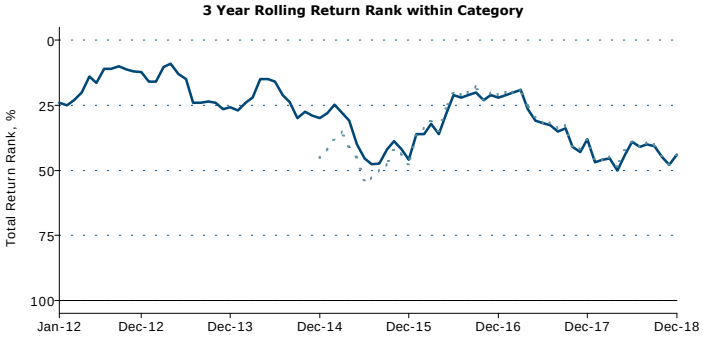
Vanguard Growth Index Institutional

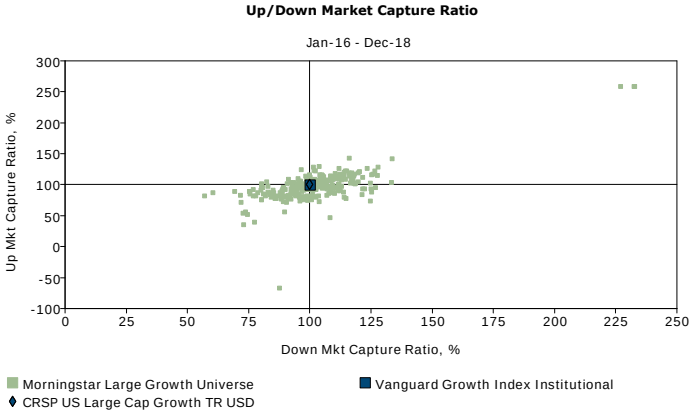


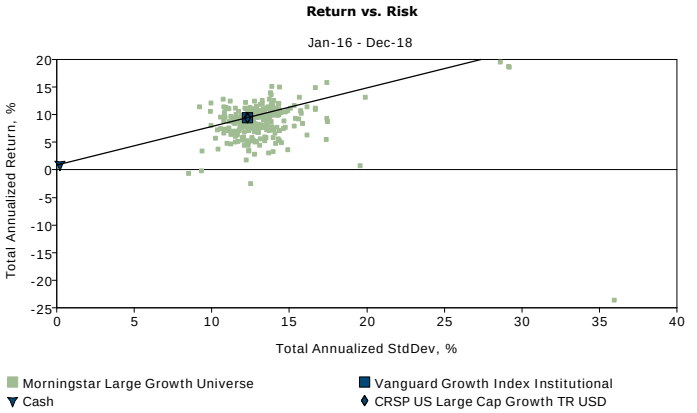
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vanguard Growth Index Institutional	36.50	17.17	1.89	17.04	32.41	13.62	3.33	6.13	27.81	-3.33
CRSP US Large Cap Growth TR USD	NA	NA	NA	15.20	31.75	13.69	3.38	6.16	27.86	-3.34



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Vanguard Growth Index Institutional	-0.01	1.00	100.00	0.72	12.30	0.03	2.30
CRSP US Large Cap Growth TR USD	0.00	1.00	100.00	0.72	12.30	0.00	2.30
Universe(5%)	2.76	1.18	97.44	0.91	16.13	8.12	3.64
Universe(25%)	0.76	1.06	94.76	0.75	13.82	5.17	2.48
Universe(Median)	-0.14	0.99	91.20	0.67	12.75	4.04	2.01
Universe(75%)	-1.68	0.92	86.51	0.54	12.04	3.05	1.42
Universe(95%)	-4.56	0.80	71.64	0.32	10.77	2.01	0.70







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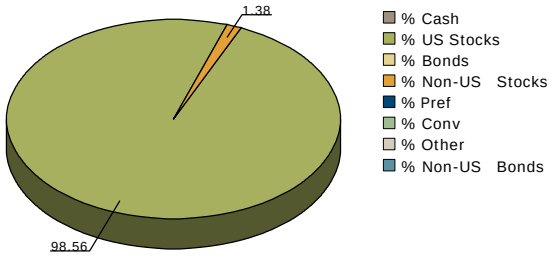
Vanguard Mid-Cap Value Index Admiral



Portfolio Region	
% United States	98.62
% Canada	0.00
% Latin America	0.00
% United Kingdom	0.31
% Eurozone	0.00
% Europe - ex Euro	0.00
% Europe - Emerging	0.00
% Africa	0.00
% Middle East	0.00
% Japan	0.00
% Australasia	0.00
% Asia - Developed	0.56
% Asia - Emerging	0.50

Portfolio Structure	
% Cash	0.05
% US Stocks	98.56
% Bonds	0.01
% Non-US Stocks	1.38
% Pref	0.00
% Conv	0.00
% Other	0.00
% Non-US Bonds	0.00

Sector Allocation	
% Basic Materials	5.83
% Communication Services	1.97
% Consumer Cyclical	19.84
% Consumer Defensive	5.97
% Healthcare	5.39
% Industrials	8.54
% Real Estate	5.65
% Technology	10.46
% Energy	3.83
% Financial Services	20.66
% Utilities	11.86

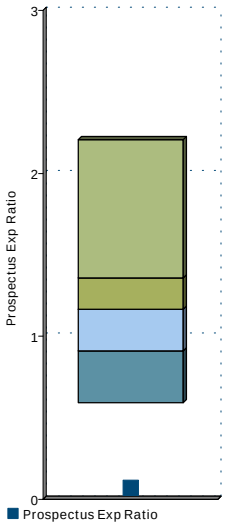
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
WEC Energy Group Inc	1.15%
M&T Bank Corp	1.10%
DTE Energy Co	1.09%
Eversource Energy	1.09%
Motorola Solutions Inc	1.07%
Clorox Co	1.07%
Dell-VMWare Tracking Stock V	1.06%
Willis Towers Watson PLC	1.05%
KeyCorp	0.97%
Royal Caribbean Cruises Ltd	0.95%

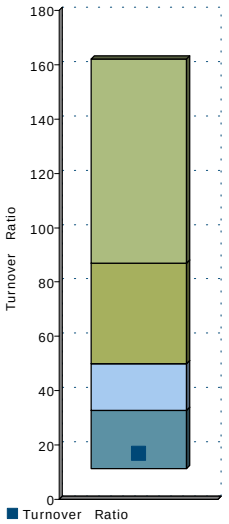
Portfolio Information	
Ticker	VMVAX
Morningstar Category	Mid-Cap Value
Avg Mkt Cap $MM	12808.34
Cat Med Mkt Cap $MM	10356.89
Net Assets $MM	16121.00
Turnover Ratio	17.00
% Assets in Top 10 Holdings	10.60
Total Number of Holdings	210.00
Manager Name	Donald M. Butler
Manager Tenure	12.38
Fund Incept Date	09/27/2011
Prospectus Exp Ratio	0.07
Phone Number	800-662-7447

Portfolio Ratings	
Mstar Rating	★★★★
3 Year Mstar Rating	★★★
% Rank Cat 3 Yr	43
5 Year Mstar Rating	★★★★
% Rank Cat 5 Yr	14
10 Year Mstar Rating	★★★★★
% Rank Cat 10 Yr	12

Expense Ratio vs. Peer Group



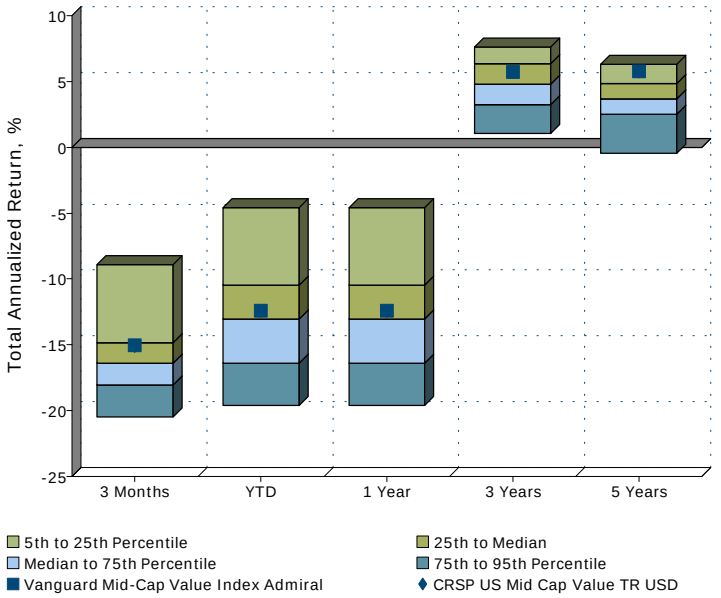
Turnover Ratio vs. Peer Group



Investment Strategy Summary

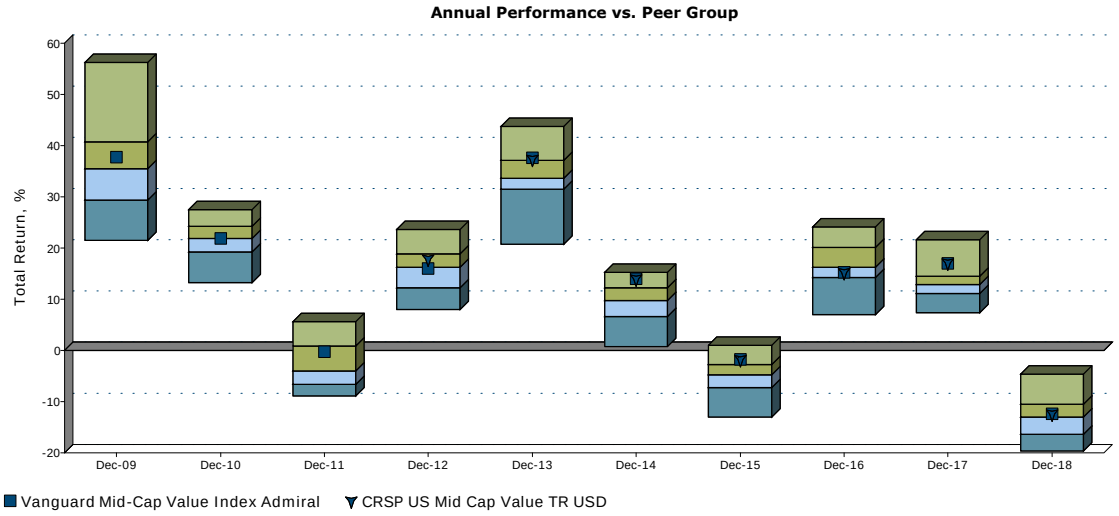
The investment seeks to track the performance of the CRSP US Mid Cap Value Index that measures the investment return of mid-capitalization value stocks. The fund employs an indexing investment approach designed to track the performance of the CRSP US Mid Cap Value Index, a broadly diversified index of 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 vs. Peer Group

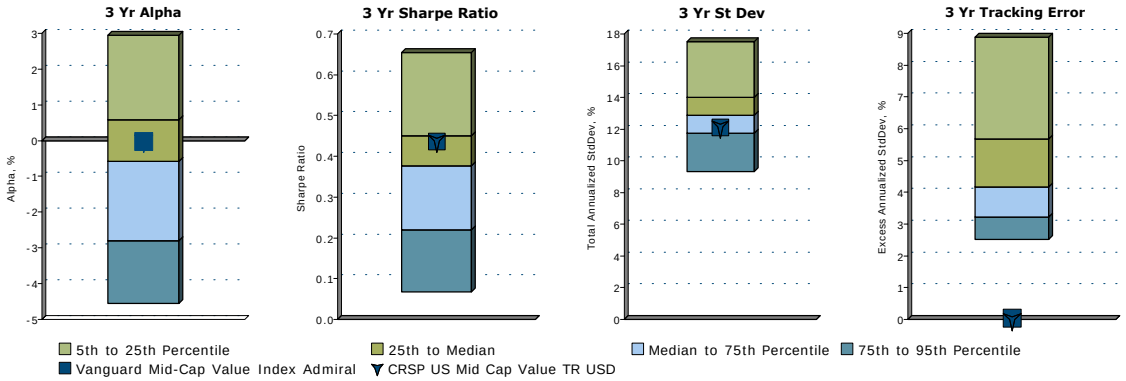


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Vanguard Mid-Cap Value Index Admiral	-15.06	-12.42	-12.42	5.71	5.75
CRSP US Mid Cap Value TR USD	-15.06	-12.42	-12.42	5.75	5.79
Universe(5%)	-8.89	-4.61	-4.61	7.62	6.31
Universe(25%)	-14.83	-10.45	-10.45	6.33	4.84
Universe(Median)	-16.40	-13.05	-13.05	4.81	3.69
Universe(75%)	-18.05	-16.39	-16.39	3.24	2.53
Universe(95%)	-20.50	-19.62	-19.62	1.08	-0.47

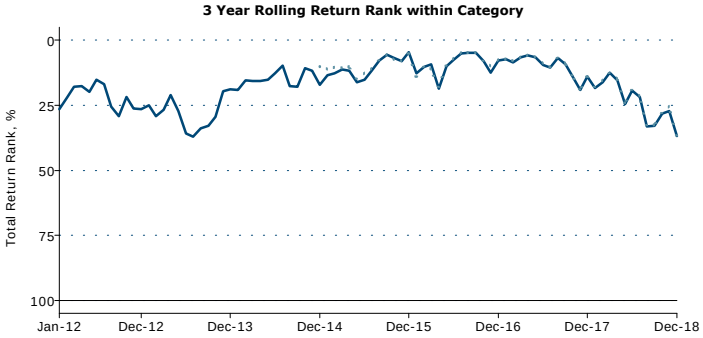
Vanguard Mid-Cap Value Index Admiral

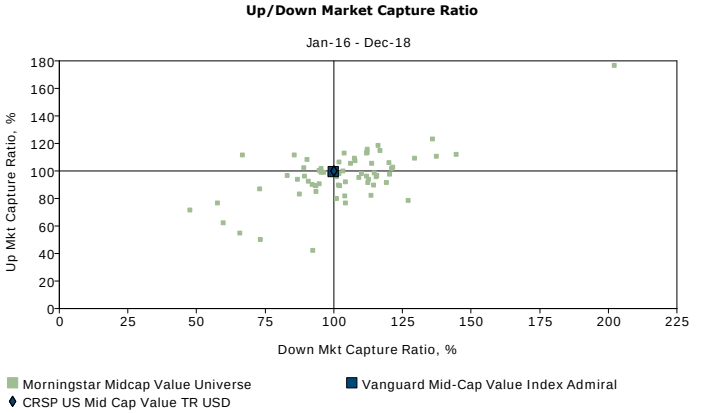


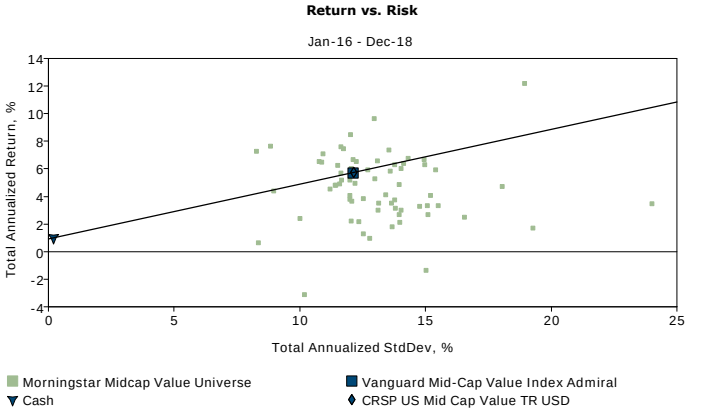
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vanguard Mid-Cap Value Index Admiral	37.74	21.82	-0.29	16.02	37.66	13.98	-1.80	15.26	17.04	-12.42
CRSP US Mid Cap Value TR USD	NA	NA	NA	17.90	37.38	14.05	-1.75	15.28	17.12	-12.42



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Vanguard Mid-Cap Value Index Admiral	-0.02	1.00	100.00	0.44	12.12	0.04	1.07
CRSP US Mid Cap Value TR USD	0.00	1.00	100.00	0.44	12.14	0.00	1.08
Universe(5%)	2.95	1.21	95.92	0.65	17.52	8.88	1.91
Universe(25%)	0.58	1.09	93.39	0.45	14.02	5.67	1.13
Universe(Median)	-0.57	1.01	91.02	0.38	12.88	4.17	0.87
Universe(75%)	-2.80	0.93	86.54	0.22	11.73	3.22	0.42
Universe(95%)	-4.56	0.57	56.45	0.07	9.34	2.51	0.14







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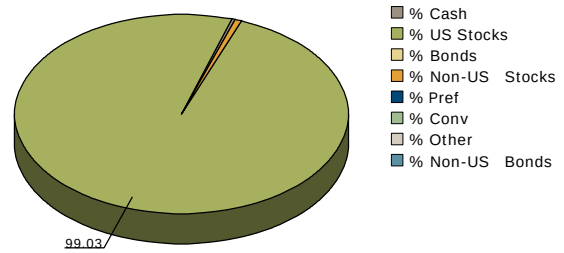
PGIM QMA Small-Cap Value R6



Portfolio Region	
% United States	99.34
% Canada	0.00
% Latin America	0.46
% United Kingdom	0.00
% Eurozone	0.00
% Europe - ex Euro	0.00
% Europe - Emerging	0.00
% Africa	0.19
% Middle East	0.00
% Japan	0.00
% Australasia	0.00
% Asia - Developed	0.00
% Asia - Emerging	0.00

Portfolio Structure	
% Cash	0.32
% US Stocks	99.03
% Bonds	0.00
% Non-US Stocks	0.65
% Pref	0.00
% Conv	0.00
% Other	0.00
% Non-US Bonds	0.00

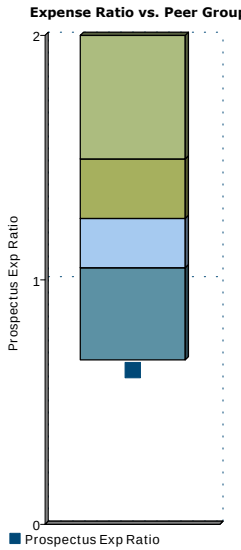
Sector Allocation	
% Basic Materials	5.05
% Communication Services	1.11
% Consumer Cyclical	15.57
% Consumer Defensive	2.47
% Healthcare	2.28
% Industrials	12.83
% Real Estate	18.51
% Technology	4.22
% Energy	3.88
% Financial Services	32.47
% Utilities	1.62

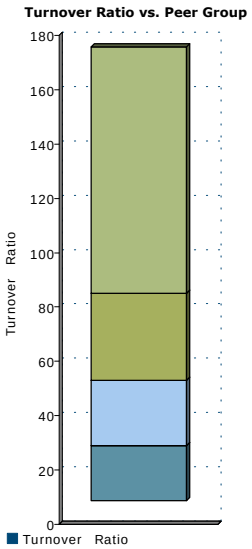
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
Tech Data Corp	1.31%
MGIC Investment Corp	1.18%
Radian Group Inc	1.16%
American Equity Investment Life Holding Co	1.13%
SkyWest Inc	1.11%
IBERIABANK Corp	1.04%
Iridium Communications Inc	0.98%
Triton International Ltd Ordinary Shares	0.98%
GATX Corp	0.93%
RLJ Lodging Trust	0.93%

Portfolio Information	
Ticker	TSVQX
Morningstar Category	Small Value
Avg Mkt Cap $MM	1575.30
Cat Med Mkt Cap $MM	2730.87
Net Assets $MM	1194.00
Turnover Ratio	NA
% Assets in Top 10 Holdings	10.75
Total Number of Holdings	348.00
Manager Name	Stephen Courtney
Manager Tenure	3.96
Fund Incept Date	01/05/1993
Prospectus Exp Ratio	0.63
Phone Number	800-225-1852

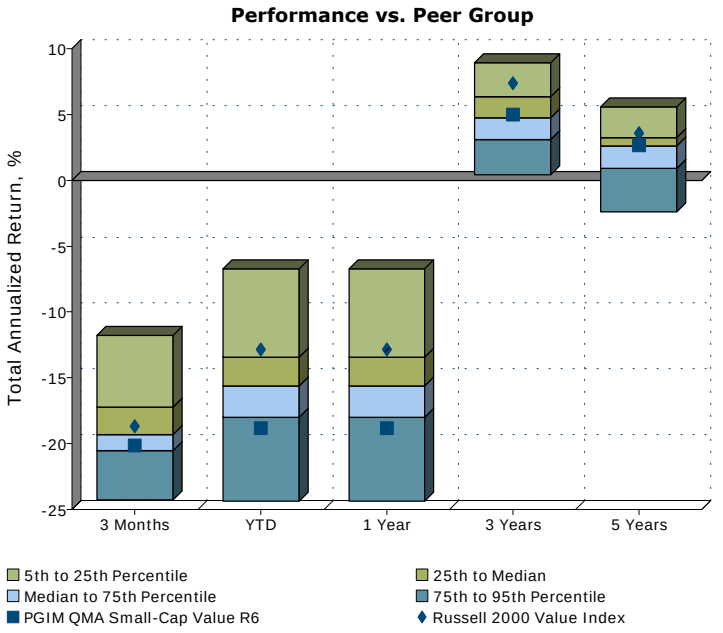
Portfolio Ratings	
Mstar Rating	★★★
3 Year Mstar Rating	★★★
% Rank Cat 3 Yr	50
5 Year Mstar Rating	★★★
% Rank Cat 5 Yr	40
10 Year Mstar Rating	★★★
% Rank Cat 10 Yr	57





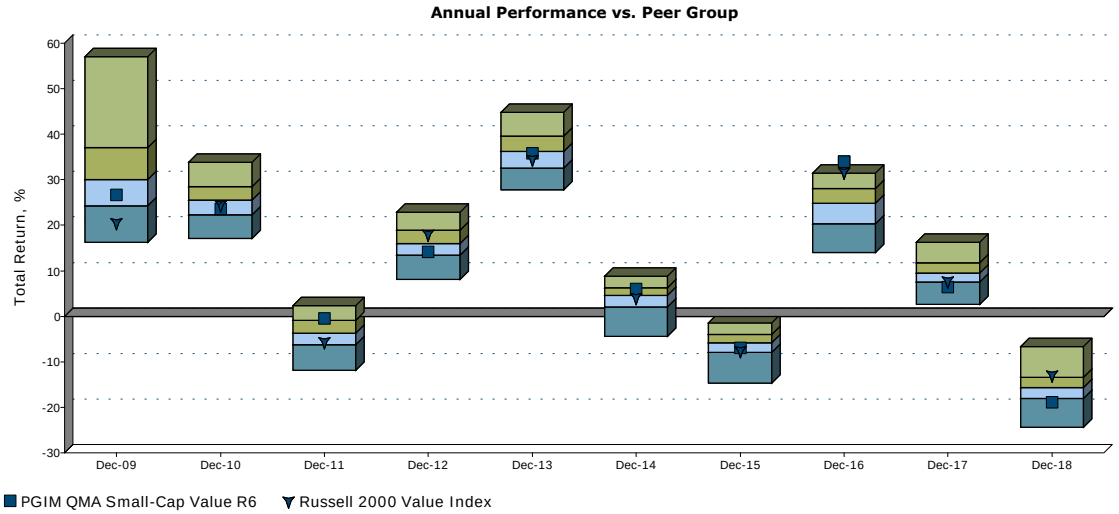
Investment Strategy Summary

The investment seeks above-average capital appreciation. The fund normally invests at least 80% of its investable assets in equity and equity-related securities of small-cap companies. The subadviser considers small-cap companies to be companies with market capitalizations within the market cap range of companies included in the Russell 2000 Index or the Standard & Poor's SmallCap 600 Index. Most assets will typically be invested in U.S. equity and equity-related securities, including up to 25% of total assets in real estate investment trusts (REITs).

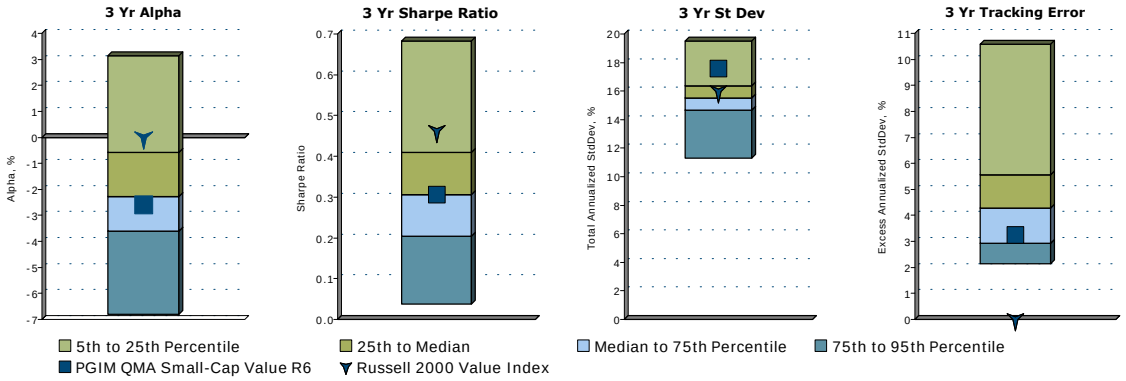


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
PGIM QMA Small-Cap Value R6	-20.13	-18.82	-18.82	5.00	2.67
Russell 2000 Value Index	-18.67	-12.86	-12.86	7.37	3.61
Universe(5%)	-11.76	-6.70	-6.70	8.95	5.59
Universe(25%)	-17.24	-13.45	-13.45	6.37	3.23
Universe(Median)	-19.32	-15.63	-15.63	4.74	2.60
Universe(75%)	-20.53	-18.02	-18.02	3.07	0.91
Universe(95%)	-24.26	-24.38	-24.38	0.41	-2.40

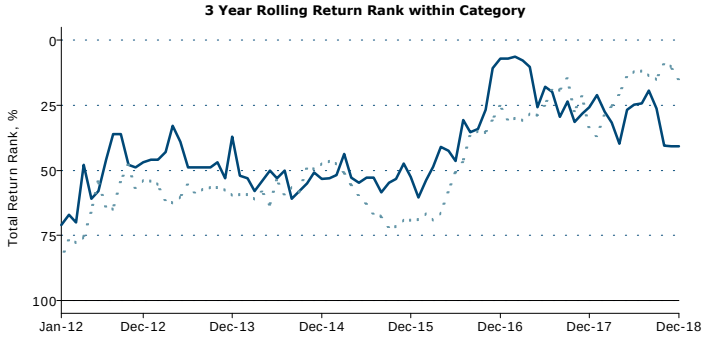
PGIM QMA Small-Cap Value R6

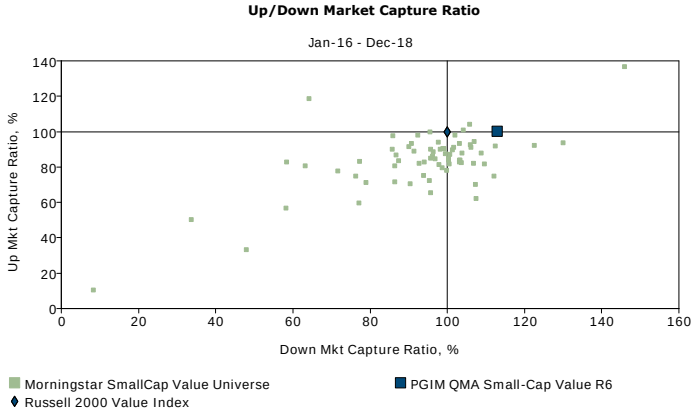


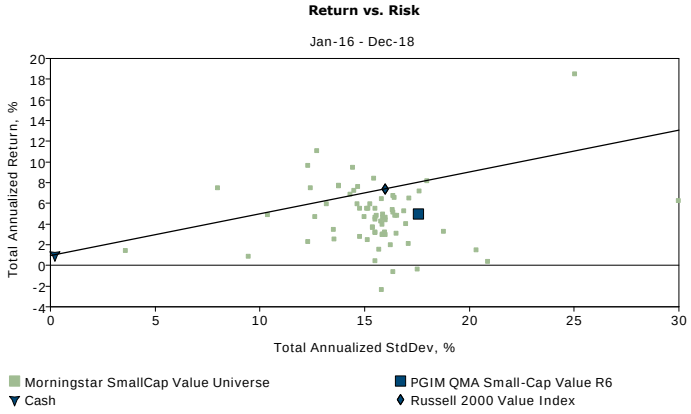
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
PGIM QMA Small-Cap Value R6	26.69	23.63	-0.48	14.14	35.87	5.95	-6.96	33.99	6.43	-18.82
Russell 2000 Value Index	20.58	24.50	-5.50	18.05	34.52	4.22	-7.47	31.74	7.84	-12.86



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
PGIM QMA Small-Cap Value R6	-2.60	1.08	97.20	0.31	17.57	3.24	0.58
Russell 2000 Value Index	0.00	1.00	100.00	0.46	15.98	0.00	1.08
Universe(5%)	3.14	1.11	98.38	0.68	19.53	10.58	2.14
Universe(25%)	-0.57	1.00	97.01	0.41	16.35	5.55	0.90
Universe(Median)	-2.27	0.95	93.68	0.31	15.54	4.27	0.61
Universe(75%)	-3.60	0.88	88.79	0.20	14.65	2.93	0.36
Universe(95%)	-6.80	0.65	67.89	0.04	11.31	2.13	0.04







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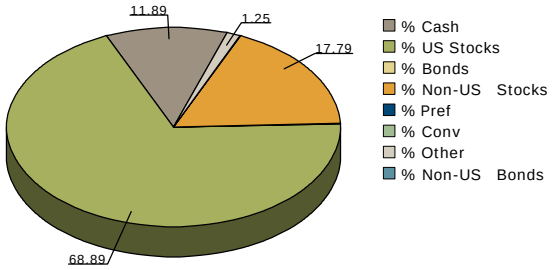
Federated Kaufmann Small Cap Instl



Portfolio Region	
% United States	79.48
% Canada	1.93
% Latin America	0.75
% United Kingdom	3.11
% Eurozone	10.42
% Europe - ex Euro	0.42
% Europe - Emerging	0.00
% Africa	0.00
% Middle East	0.94
% Japan	0.00
% Australasia	0.24
% Asia - Developed	0.50
% Asia - Emerging	2.20

Portfolio Structure	
% Cash	11.89
% US Stocks	68.89
% Bonds	0.15
% Non-US Stocks	17.79
% Pref	0.00
% Conv	0.03
% Other	1.25
% Non-US Bonds	0.00

Sector Allocation	
% Basic Materials	2.10
% Communication Services	0.97
% Consumer Cyclical	12.55
% Consumer Defensive	0.00
% Healthcare	31.32
% Industrials	8.51
% Real Estate	5.94
% Technology	33.96
% Energy	0.65
% Financial Services	4.00
% Utilities	0.00

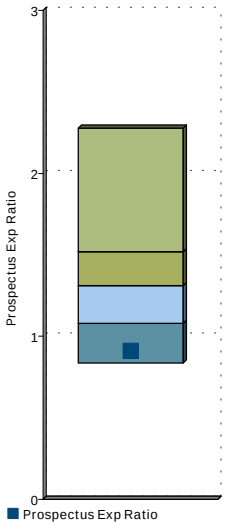
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
Veeva Systems Inc Class A	1.52%
argenx SE ADR	1.48%
Galapagos NV ADR	1.47%
AnaptysBio Inc	1.31%
Rapid7 Inc	1.12%
argenx SE	1.11%
GoDaddy Inc A	1.09%
XPO Logistics Inc	1.05%
ShotSpotter Inc	1.03%
CoStar Group Inc	1.01%

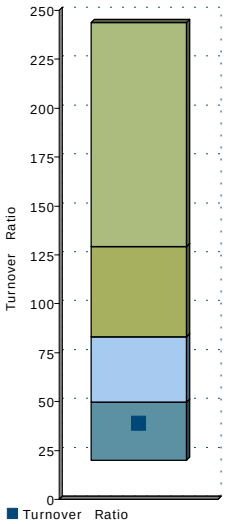
Portfolio Information	
Ticker	FKAIX
Morningstar Category	Small Growth
Avg Mkt Cap $MM	2705.76
Cat Med Mkt Cap $MM	3221.89
Net Assets $MM	1532.00
Turnover Ratio	39.00
% Assets in Top 10 Holdings	12.19
Total Number of Holdings	181.00
Manager Name	Hans P. Utsch
Manager Tenure	16.05
Fund Incept Date	12/18/2002
Prospectus Exp Ratio	0.91
Phone Number	800-341-7400

Portfolio Ratings	
Mstar Rating	★★★★★
3 Year Mstar Rating	★★★★★
% Rank Cat 3 Yr	2
5 Year Mstar Rating	★★★★★
% Rank Cat 5 Yr	1
10 Year Mstar Rating	★★★★
% Rank Cat 10 Yr	6

Expense Ratio vs. Peer Group



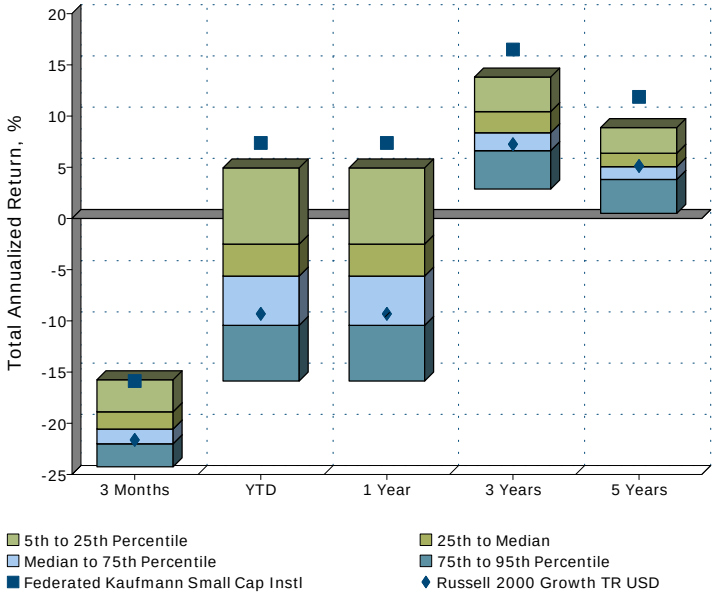
Turnover Ratio vs. Peer Group



Investment Strategy Summary

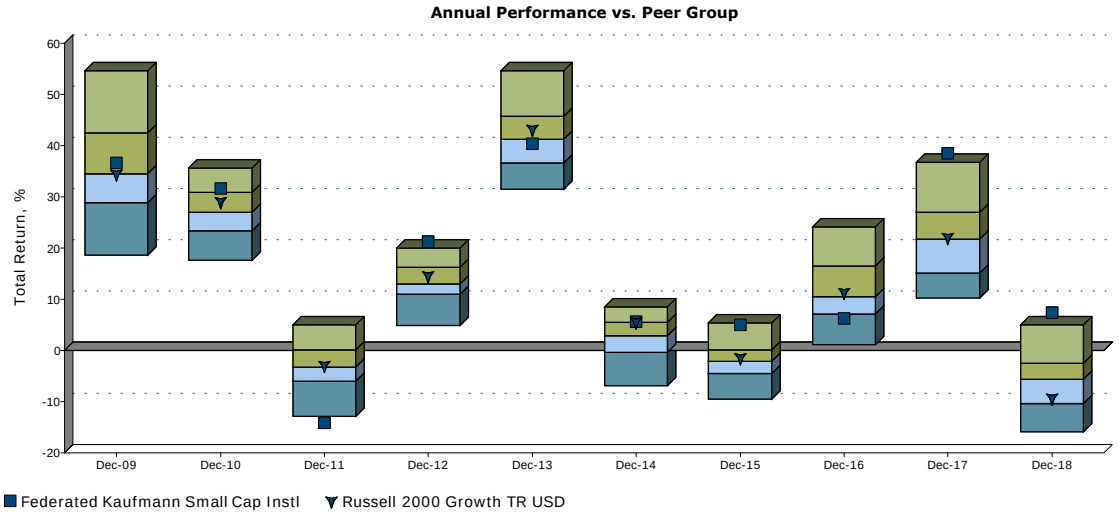
The investment seeks to provide capital appreciation. The fund invests primarily in the common stocks of small companies that are traded on national security exchanges, the NASDAQ stock market and on the over-the-counter market. It will normally invest at least 80% of its net assets (which include the 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 vs. Peer Group

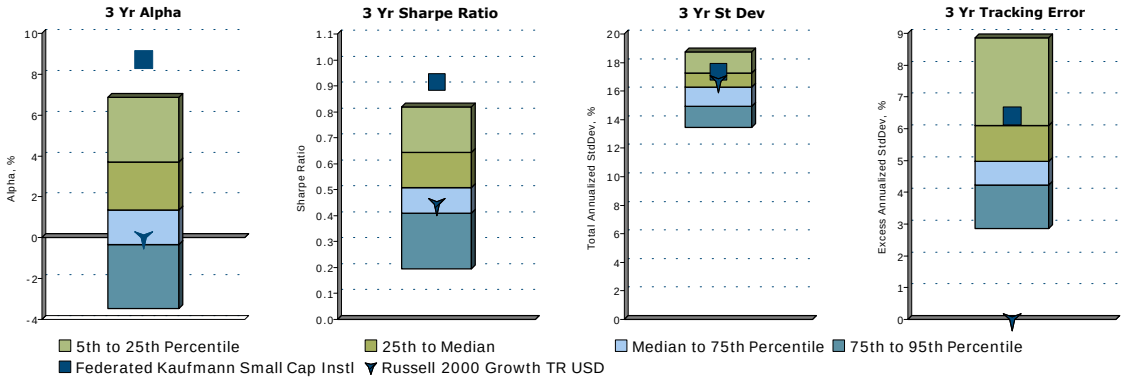


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Federated Kaufmann Small Cap Instl	-15.90	7.40	7.40	16.48	11.88
Russell 2000 Growth TR USD	-21.65	-9.31	-9.31	7.24	5.13
Universe(5%)	-15.74	4.95	4.95	13.82	8.85
Universe(25%)	-18.89	-2.50	-2.50	10.44	6.40
Universe(Median)	-20.59	-5.65	-5.65	8.35	5.04
Universe(75%)	-21.99	-10.43	-10.43	6.62	3.82
Universe(95%)	-24.28	-15.86	-15.86	2.86	0.48

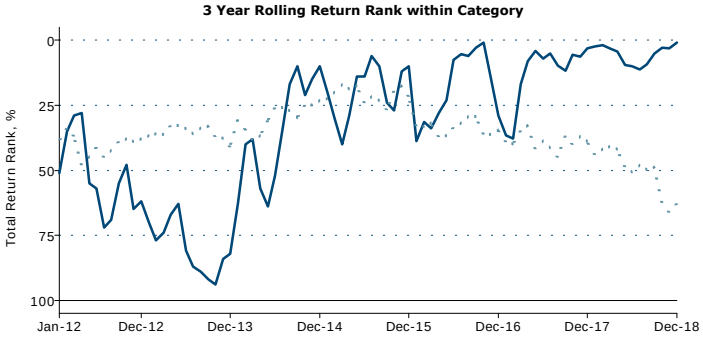
Federated Kaufmann Small Cap Instl

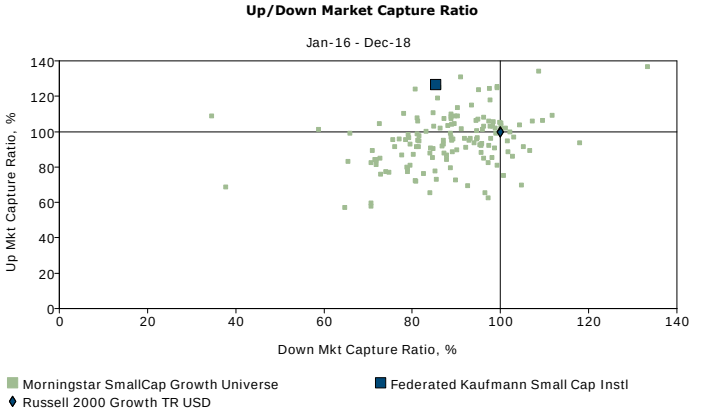


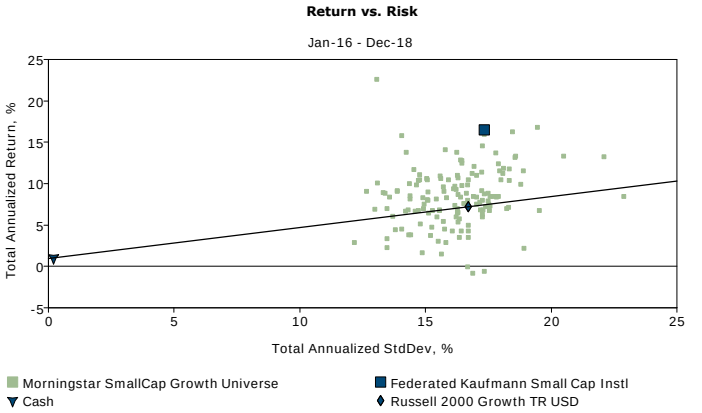
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Federated Kaufmann Small Cap Instl	36.58	31.61	-14.18	21.27	40.35	5.66	4.98	6.27	38.46	7.40
Russell 2000 Growth TR USD	34.47	29.09	-2.91	14.59	43.30	5.60	-1.38	11.32	22.17	-9.31



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Federated Kaufmann Small Cap Instl	8.73	0.96	86.48	0.92	17.34	6.40	3.27
Russell 2000 Growth TR USD	0.00	1.00	100.00	0.44	16.69	0.00	0.97
Universe(5%)	6.87	1.05	97.34	0.82	18.75	8.86	2.76
Universe(25%)	3.69	0.99	93.93	0.64	17.26	6.09	1.79
Universe(Median)	1.35	0.93	91.93	0.51	16.28	4.97	1.22
Universe(75%)	-0.34	0.86	88.01	0.41	14.94	4.22	0.85
Universe(95%)	-3.47	0.75	74.14	0.20	13.46	2.86	0.33







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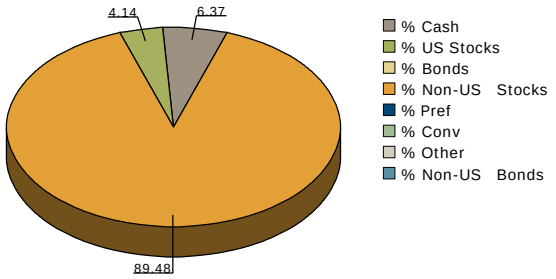
Oppenheimer International Growth I



Portfolio Region	
% United States	4.42
% Canada	4.73
% Latin America	0.00
% United Kingdom	10.96
% Eurozone	36.09
% Europe - ex Euro	16.65
% Europe - Emerging	1.07
% Africa	0.00
% Middle East	0.00
% Japan	12.78
% Australasia	2.37
% Asia - Developed	3.32
% Asia - Emerging	7.59

Portfolio Structure	
% Cash	6.37
% US Stocks	4.14
% Bonds	0.00
% Non-US Stocks	89.48
% Pref	0.01
% Conv	0.00
% Other	0.00
% Non-US Bonds	0.00

Sector Allocation	
% Basic Materials	1.79
% Communication Services	2.64
% Consumer Cyclical	20.81
% Consumer Defensive	13.48
% Healthcare	14.53
% Industrials	14.45
% Real Estate	0.00
% Technology	25.00
% Energy	1.08
% Financial Services	6.24
% Utilities	0.00

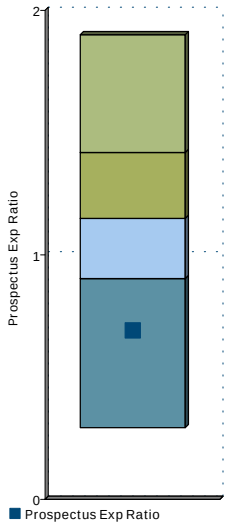
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
Infineon Technologies AG	2.29%
SAP SE	2.25%
ICICI Bank Ltd ADR	2.13%
Bunzl PLC	1.84%
Lonza Group Ltd	1.80%
Temenos AG	1.78%
SES SA DR	1.77%
Novo Nordisk A/S B	1.77%
Nokia Oyj	1.72%
ASML Holding NV	1.70%

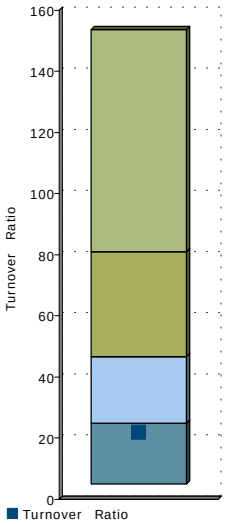
Portfolio Information	
Ticker	OIGIX
Morningstar Category	Foreign Large Growth
Avg Mkt Cap $MM	21598.65
Cat Med Mkt Cap $MM	33139.97
Net Assets $MM	18750.00
Turnover Ratio	22.00
% Assets in Top 10 Holdings	19.04
Total Number of Holdings	84.00
Manager Name	George R. Evans
Manager Tenure	22.78
Fund Incept Date	03/25/1996
Prospectus Exp Ratio	0.69
Phone Number	800-225-5677

Portfolio Ratings	
Mstar Rating	★★
3 Year Mstar Rating	★
% Rank Cat 3 Yr	92
5 Year Mstar Rating	★★
% Rank Cat 5 Yr	87
10 Year Mstar Rating	★★★★
% Rank Cat 10 Yr	33

Expense Ratio vs. Peer Group



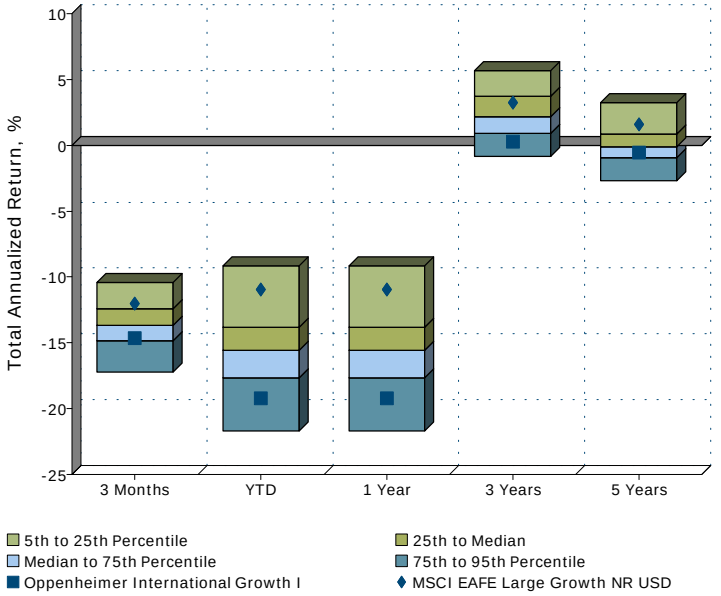
Turnover Ratio vs. Peer Group



Investment Strategy Summary

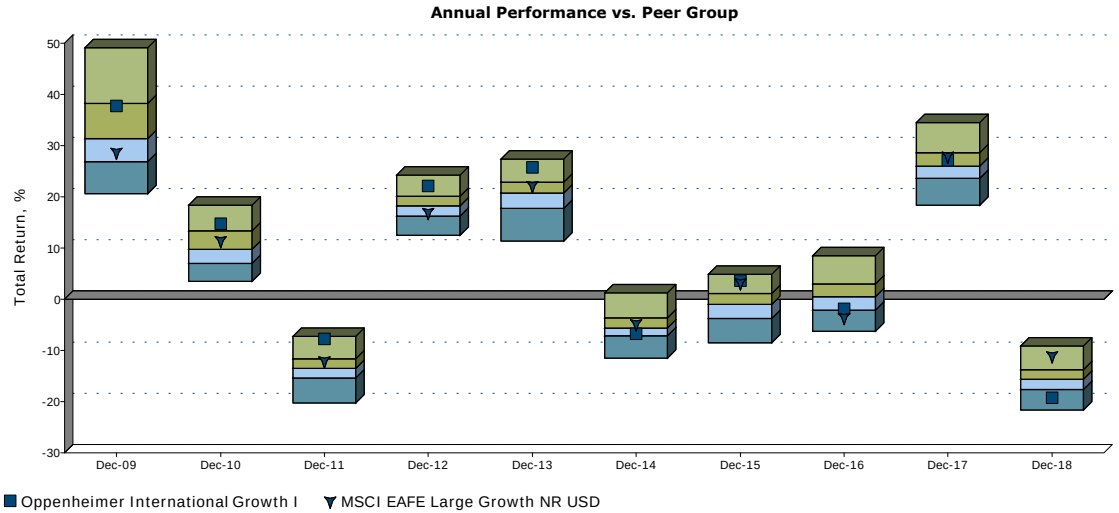
The investment seeks capital appreciation. The fund mainly invests in the common stock of growth companies that are domiciled or have their primary operations outside of the United States. It may invest 100% of its assets in securities of foreign companies. The fund may invest in emerging markets as well as in developed markets throughout the world. It normally will invest at least 65% of its total assets in common and preferred stocks of issuers in at least three different countries outside of the United States, and emphasize investments in common stocks of issuers that the portfolio managers consider to be "growth" companies.

Performance vs. Peer Group

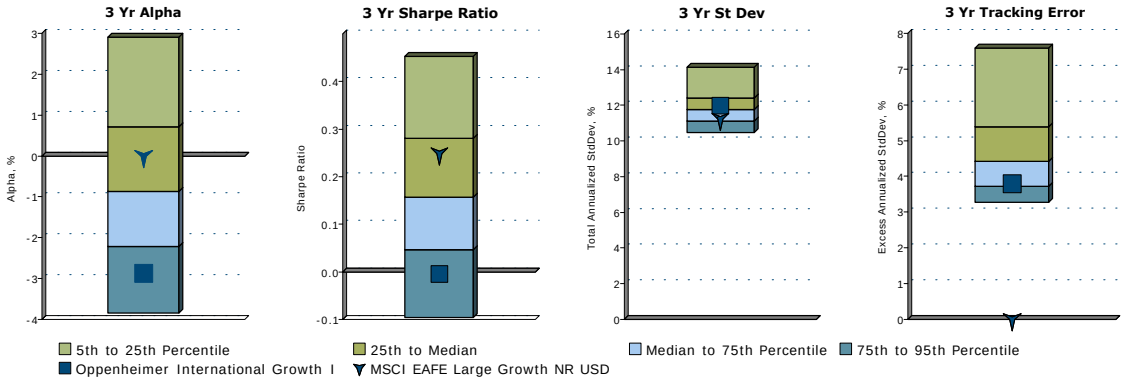


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Oppenheimer International Growth I	-14.63	-19.22	-19.22	0.26	-0.54
MSCI EAFE Large Growth NR USD	-12.00	-10.98	-10.98	3.22	1.60
Universe(5%)	-10.40	-9.14	-9.14	5.68	3.22
Universe(25%)	-12.41	-13.80	-13.80	3.73	0.85
Universe(Median)	-13.68	-15.57	-15.57	2.18	-0.12
Universe(75%)	-14.83	-17.66	-17.66	0.89	-0.91
Universe(95%)	-17.20	-21.68	-21.68	-0.84	-2.71

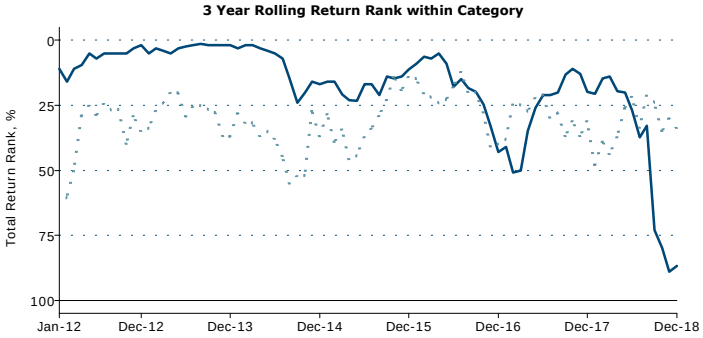
Oppenheimer International Growth I

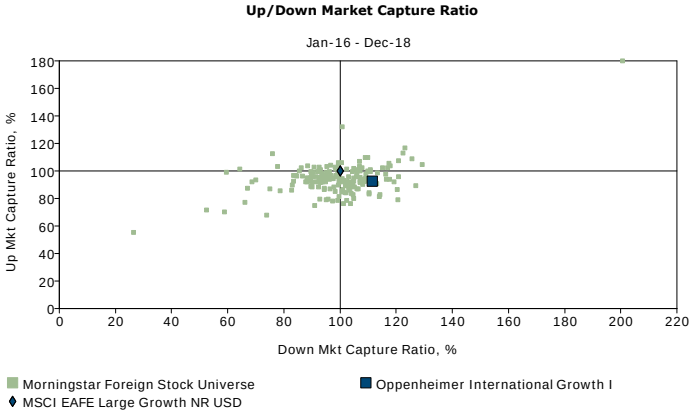


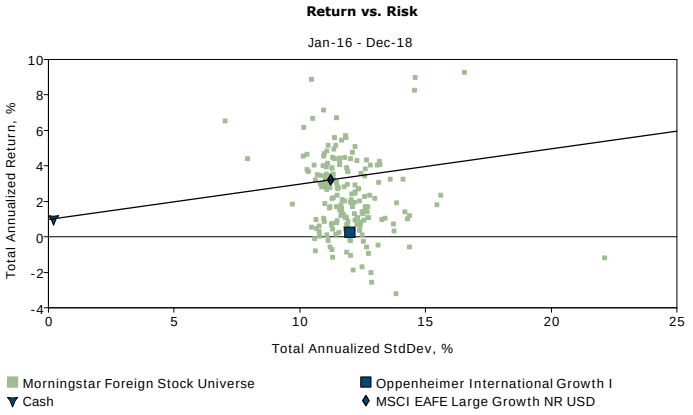
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Oppenheimer International Growth I	37.78	14.69	-7.71	22.12	25.71	-6.80	3.63	-1.88	27.15	-19.22
MSCI EAFE Large Growth NR USD	28.81	11.48	-12.04	17.06	22.28	-4.70	3.28	-3.47	27.97	-10.98



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Oppenheimer International Growth I	-2.87	1.01	90.05	0.00	11.98	3.80	0.03
MSCI EAFE Large Growth NR USD	0.00	1.00	100.00	0.25	11.23	0.00	0.56
Universe(5%)	2.91	1.10	92.13	0.45	14.15	7.59	1.28
Universe(25%)	0.72	1.02	90.10	0.28	12.43	5.39	0.64
Universe(Median)	-0.87	0.96	86.81	0.16	11.76	4.42	0.33
Universe(75%)	-2.21	0.93	81.24	0.05	11.13	3.72	0.12
Universe(95%)	-3.84	0.84	66.77	-0.10	10.49	3.27	-0.10







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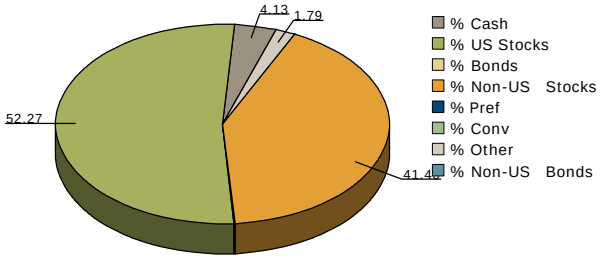
American Funds New Perspective R6



Portfolio Region	
% United States	55.77
% Canada	1.64
% Latin America	1.98
% United Kingdom	6.48
% Eurozone	9.75
% Europe - ex Euro	6.07
% Europe - Emerging	0.00
% Africa	1.79
% Middle East	0.15
% Japan	5.86
% Australasia	0.31
% Asia - Developed	8.17
% Asia - Emerging	2.04

Portfolio Structure	
% Cash	4.13
% US Stocks	52.27
% Bonds	0.20
% Non-US Stocks	41.46
% Pref	0.10
% Conv	0.05
% Other	1.79
% Non-US Bonds	0.00

Sector Allocation	
% Basic Materials	6.47
% Communication Services	1.95
% Consumer Cyclical	18.29
% Consumer Defensive	8.58
% Healthcare	10.02
% Industrials	7.97
% Real Estate	0.23
% Technology	26.26
% Energy	4.46
% Financial Services	14.56
% Utilities	1.20

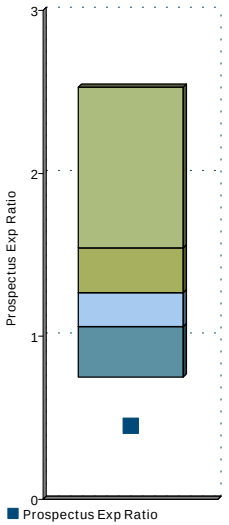
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
Amazon.com Inc	5.22%
Taiwan Semiconductor Manufacturing Co Ltd	2.24%
Facebook Inc A	2.14%
Microsoft Corp	2.12%
Broadcom Inc	1.64%
Mastercard Inc A	1.58%
JPMorgan Chase & Co	1.56%
Netflix Inc	1.49%
Naspers Ltd Class N	1.48%
Visa Inc Class A	1.42%

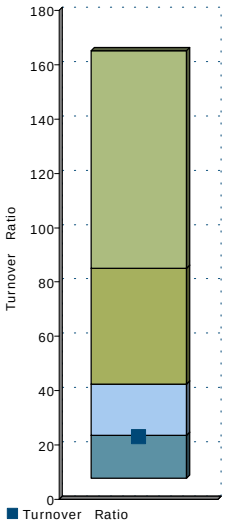
Portfolio Information	
Ticker	RNPGX
Morningstar Category	World Large Stock
Avg Mkt Cap $MM	75483.54
Cat Med Mkt Cap $MM	68988.37
Net Assets $MM	74415.00
Turnover Ratio	23.00
% Assets in Top 10 Holdings	20.91
Total Number of Holdings	340.00
Manager Name	Robert W. Lovelace
Manager Tenure	18.09
Fund Incept Date	03/13/1973
Prospectus Exp Ratio	0.45
Phone Number	800-421-4225

Portfolio Ratings	
Mstar Rating	★★★★
3 Year Mstar Rating	★★★★
% Rank Cat 3 Yr	19
5 Year Mstar Rating	★★★★
% Rank Cat 5 Yr	11
10 Year Mstar Rating	★★★★★
% Rank Cat 10 Yr	11

Expense Ratio vs. Peer Group



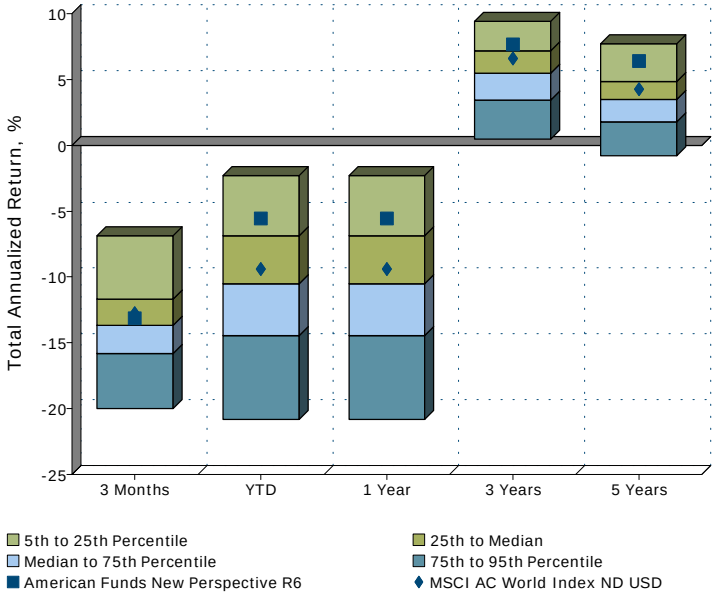
Turnover Ratio vs. Peer Group



Investment Strategy Summary

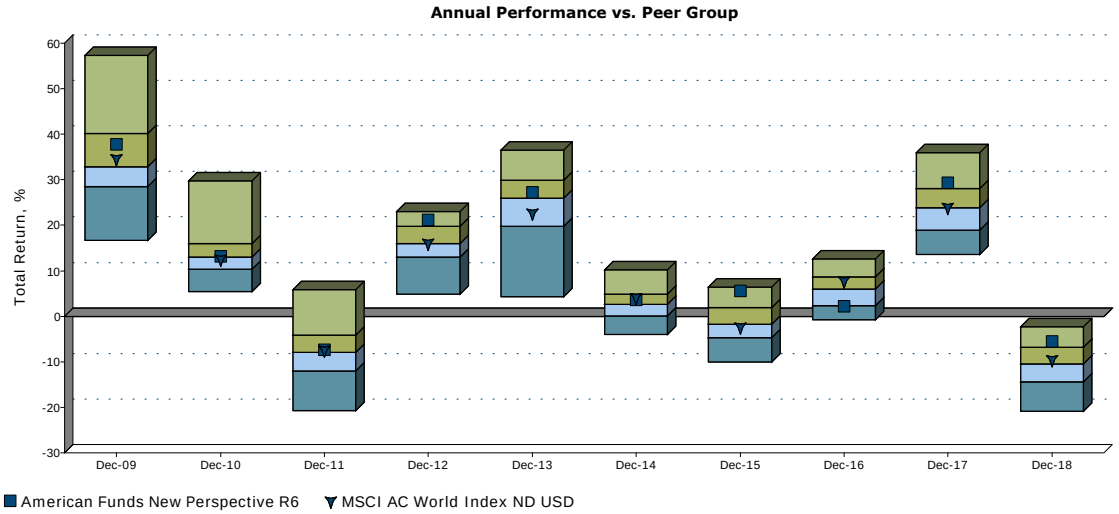
The investment seeks long-term growth of capital; future income is a secondary objective. The fund seeks to take advantage of investment opportunities generated by changes in international trade patterns and economic and political relationships by investing in common stocks of companies located around 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 vs. Peer Group

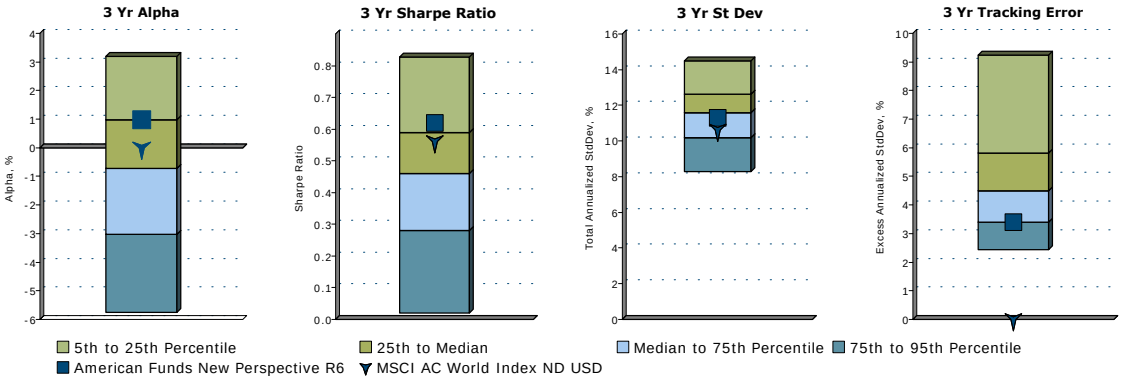


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
American Funds New Perspective R6	-13.15	-5.56	-5.56	7.66	6.42
MSCI AC World Index ND USD	-12.75	-9.42	-9.42	6.60	4.26
Universe(5%)	-6.85	-2.30	-2.30	9.44	7.73
Universe(25%)	-11.68	-6.87	-6.87	7.18	4.86
Universe(Median)	-13.65	-10.49	-10.49	5.47	3.51
Universe(75%)	-15.80	-14.46	-14.46	3.46	1.79
Universe(95%)	-20.00	-20.82	-20.82	0.45	-0.78

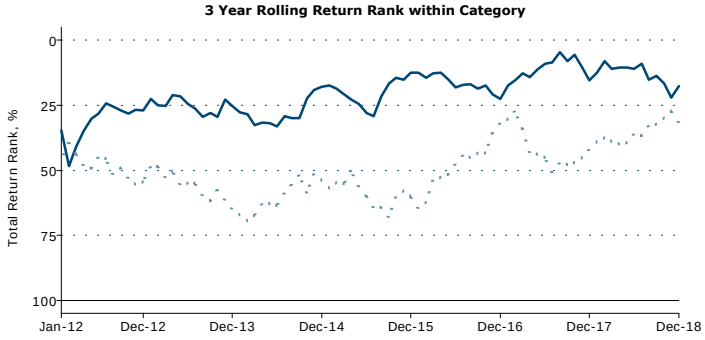
American Funds New Perspective R6

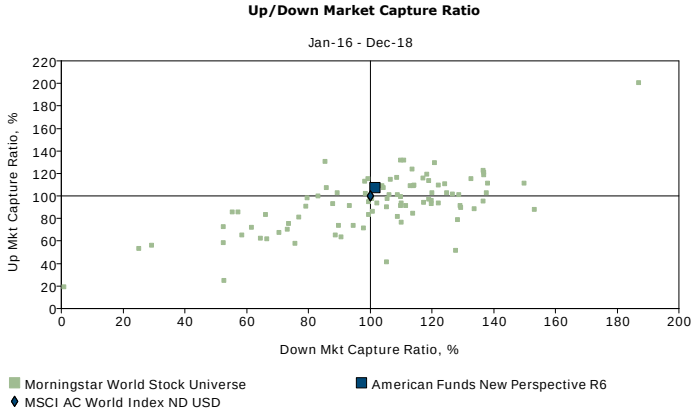


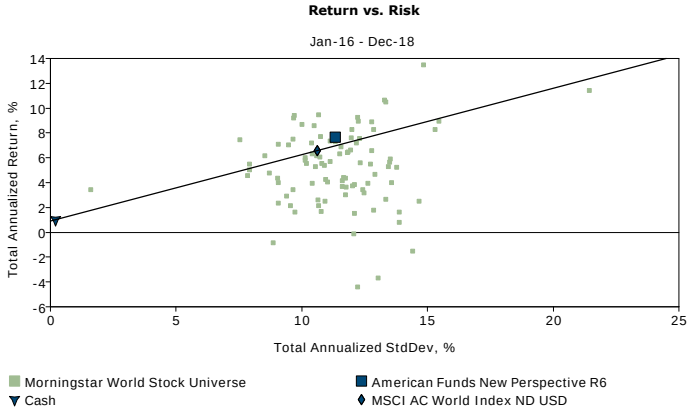
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
American Funds New Perspective R6	37.73	13.11	-7.33	21.19	27.23	3.56	5.63	2.19	29.30	-5.56
MSCI AC World Index ND USD	34.63	12.67	-7.35	16.13	22.80	4.16	-2.36	7.86	23.97	-9.42



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
American Funds New Perspective R6	0.98	1.02	91.04	0.62	11.32	3.40	1.86
MSCI AC World Index ND USD	0.00	1.00	100.00	0.56	10.62	0.00	1.62
Universe(5%)	3.20	1.20	94.88	0.83	14.51	9.24	3.04
Universe(25%)	0.99	1.10	90.64	0.59	12.62	5.82	1.72
Universe(Median)	-0.72	1.00	86.09	0.46	11.60	4.49	1.21
Universe(75%)	-3.02	0.89	78.13	0.28	10.19	3.40	0.62
Universe(95%)	-5.74	0.61	46.39	0.02	8.29	2.43	0.05







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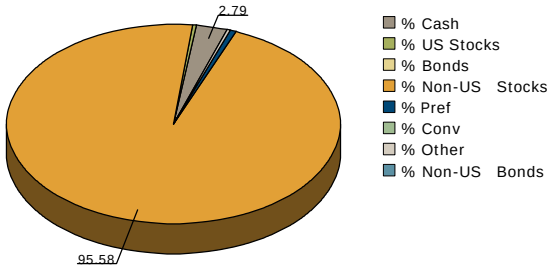
Vanguard Emerging Mkts Stock Idx Instl



Portfolio Region	
% United States	0.72
% Canada	0.01
% Latin America	12.94
% United Kingdom	0.16
% Eurozone	0.44
% Europe - ex Euro	0.01
% Europe - Emerging	4.80
% Africa	6.82
% Middle East	2.27
% Japan	0.00
% Australasia	0.02
% Asia - Developed	15.34
% Asia - Emerging	56.46

Portfolio Structure	
% Cash	2.79
% US Stocks	0.70
% Bonds	0.00
% Non-US Stocks	95.58
% Pref	0.63
% Conv	0.01
% Other	0.29
% Non-US Bonds	0.00

Sector Allocation	
% Basic Materials	8.16
% Communication Services	4.81
% Consumer Cyclical	11.55
% Consumer Defensive	6.66
% Healthcare	3.15
% Industrials	6.06
% Real Estate	4.44
% Technology	20.30
% Energy	7.56
% Financial Services	24.16
% Utilities	3.16

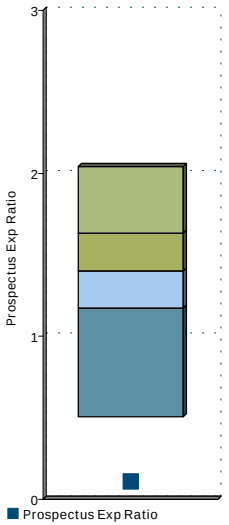
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
Tencent Holdings Ltd	4.49%
Alibaba Group Holding Ltd ADR	3.34%
Taiwan Semiconductor Manufacturing Co Ltd	2.15%
Naspers Ltd Class N	1.68%
China Construction Bank Corp H	1.50%
Taiwan Semiconductor Manufacturing Co Ltd ADR	1.40%
Industrial And Commercial Bank Of China Ltd H	1.10%
China Mobile Ltd	1.04%
Baidu Inc ADR	1.02%
Reliance Industries Ltd	1.02%

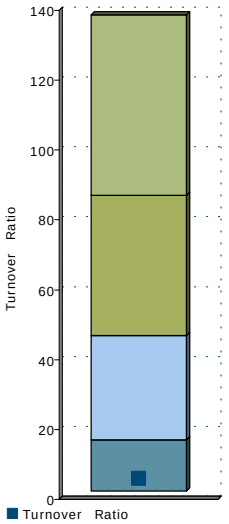
Portfolio Information	
Ticker	VEMIX
Morningstar Category	Diversified Emerging Mkts
Avg Mkt Cap $MM	18685.94
Cat Med Mkt Cap $MM	28791.48
Net Assets $MM	75602.00
Turnover Ratio	6.00
% Assets in Top 10 Holdings	18.74
Total Number of Holdings	4073.00
Manager Name	Michael Perre
Manager Tenure	10.35
Fund Incept Date	05/04/1994
Prospectus Exp Ratio	0.11
Phone Number	888-809-8102

Portfolio Ratings	
Mstar Rating	★★★
3 Year Mstar Rating	★★★
% Rank Cat 3 Yr	39
5 Year Mstar Rating	★★★
% Rank Cat 5 Yr	34
10 Year Mstar Rating	★★★
% Rank Cat 10 Yr	50

Expense Ratio vs. Peer Group



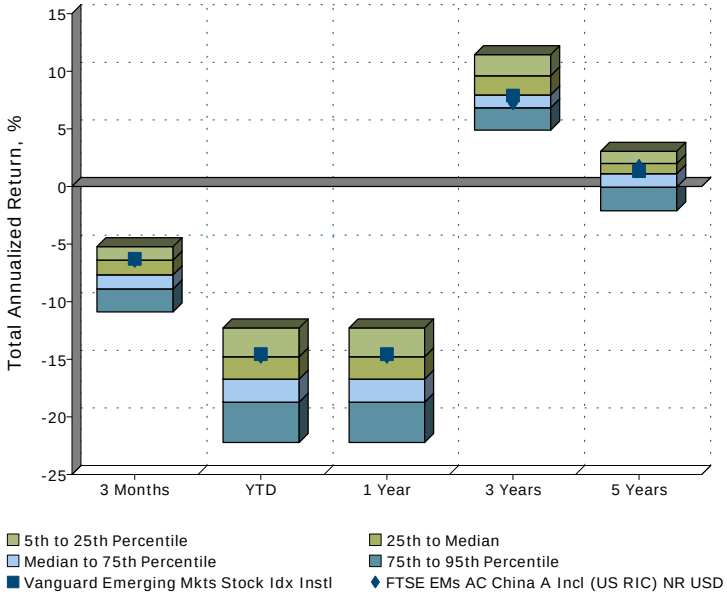
Turnover Ratio vs. Peer Group



Investment Strategy Summary

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, a market-capitalization-weighted index that is made up of approximately 4,032 common stocks of large-, mid-, and small-cap companies located in emerging markets around the world.

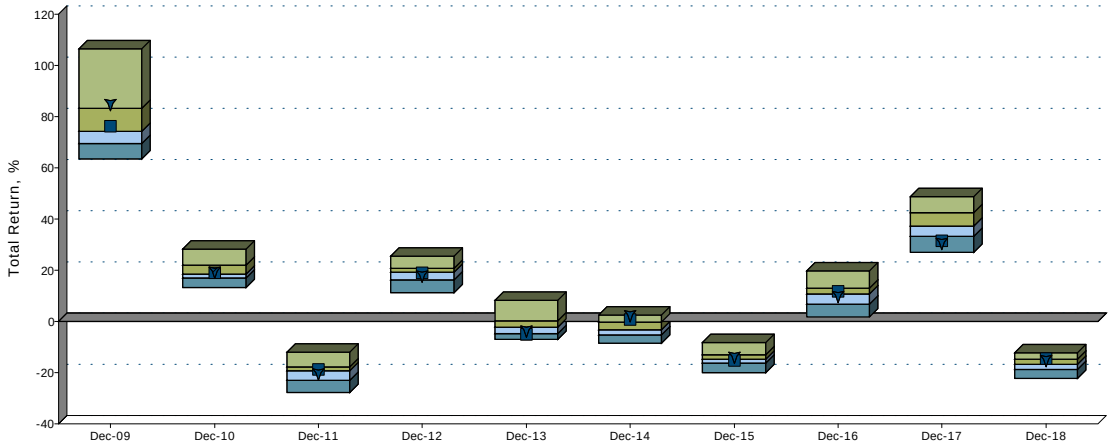
Performance vs. Peer Group



Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Vanguard Emerging Mkts Stock Idx Instl	-6.30	-14.54	-14.54	7.88	1.36
FTSE EMs AC China A Incl (US RIC) NR USD	-6.43	-14.77	-14.77	7.21	1.80
Universe(5%)	-5.23	-12.25	-12.25	11.45	3.07
Universe(25%)	-6.41	-14.78	-14.78	9.64	1.98
Universe(Median)	-7.65	-16.71	-16.71	7.96	1.14
Universe(75%)	-8.90	-18.72	-18.72	6.82	-0.03
Universe(95%)	-10.87	-22.21	-22.21	4.88	-2.14

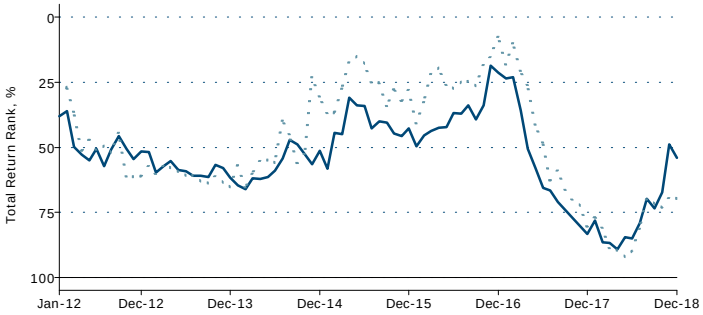
Vanguard Emerging Mkts Stock Idx Instl

Annual Performance vs. Peer Group



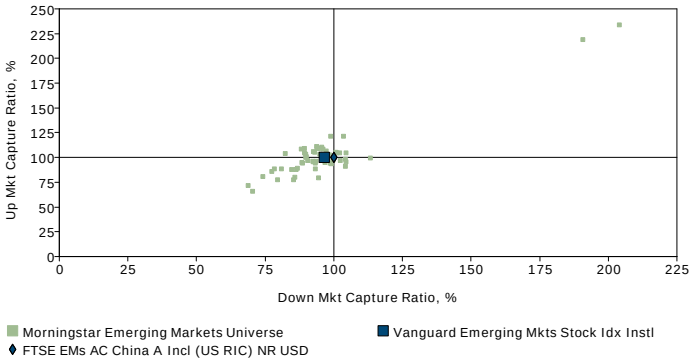
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vanguard Emerging Mkts Stock Idx Instl	76.35	19.06	-18.63	18.91	-4.99	0.67	-15.34	11.76	31.43	-14.54
FTSE EMs AC China A Incl (US RIC) NR USD	85.17	19.81	-19.99	18.14	-3.17	2.64	-13.55	10.30	31.06	-14.77

3 Year Rolling Return Rank within Category

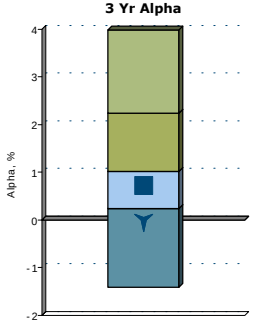


Up/Down Market Capture Ratio

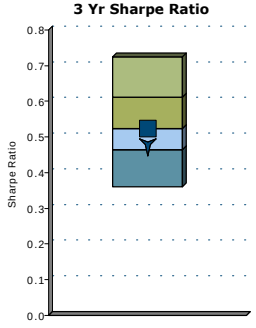
Jan-16 - Dec-18



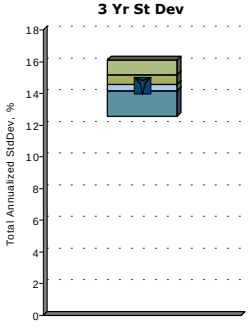
3 Yr Alpha



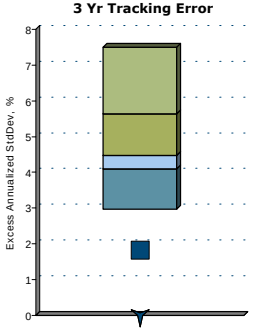
3 Yr Sharpe Ratio



3 Yr St Dev



3 Yr Tracking Error



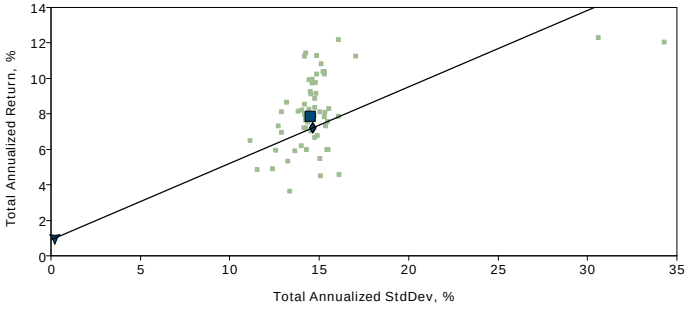
5th to 25th Percentile | 25th to Median | Median to 75th Percentile | 75th to 95th Percentile

Vanguard Emerging Mkts Stock Idx Instl | FTSE EMs AC China A Incl (US RIC) NR USD

MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Vanguard Emerging Mkts Stock Idx Instl	0.72	0.98	98.45	0.52	14.49	1.83	1.39
FTSE EMs AC China A Incl (US RIC) NR USD	0.00	1.00	100.00	0.48	14.63	0.00	1.20
Universe(5%)	3.98	1.07	95.92	0.72	16.10	7.51	2.34
Universe(25%)	2.23	0.99	92.88	0.61	15.19	5.63	1.76
Universe(Median)	1.02	0.96	91.29	0.52	14.57	4.47	1.36
Universe(75%)	0.25	0.91	86.59	0.46	14.16	4.10	1.08
Universe(95%)	-1.42	0.77	81.10	0.36	12.57	2.97	0.80

Return vs. Risk

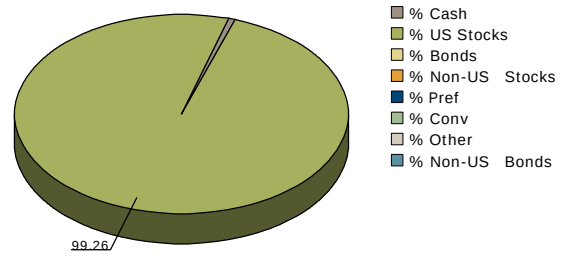
Jan-16 - Dec-18



Milliman | Quarterly Investment Monitor

Data as of 12/31/2018

Vanguard Real Estate Index Institutional



Portfolio Region	
% United States	99.96
% Canada	0.04
% Latin America	0.00
% United Kingdom	0.00
% Eurozone	0.00
% Europe - ex Euro	0.00
% Europe - Emerging	0.00
% Africa	0.00
% Middle East	0.00
% Japan	0.00
% Australasia	0.00
% Asia - Developed	0.00
% Asia - Emerging	0.00

Portfolio Structure	
% Cash	0.71
% US Stocks	99.26
% Bonds	0.00
% Non-US Stocks	0.03
% Pref	0.00
% Conv	0.00
% Other	0.00
% Non-US Bonds	0.00

Sector Allocation	
% Basic Materials	2.25
% Communication Services	8.56
% Consumer Cyclical	0.00
% Consumer Defensive	0.00
% Healthcare	0.00
% Industrials	0.88
% Real Estate	88.30
% Technology	0.00
% Energy	0.00
% Financial Services	0.00
% Utilities	0.00

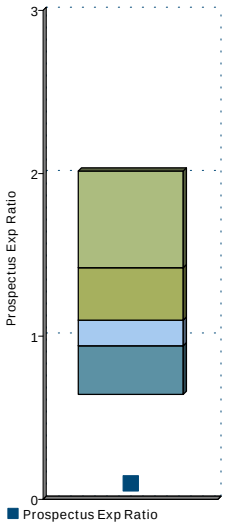
Credit Quality	
Avg Eff Duration	NA
Effective Maturity	NA
Avg Credit Quality	NA
AAA	NA
AA	NA
A	NA
BBB	NA
BB	NA
B	NA
Below B	NA
NR/NA	NA

Top Ten Holdings	
Vanguard Real Estate II Index	11.02%
American Tower Corp	5.94%
Simon Property Group Inc	4.70%
Crown Castle International Corp	3.90%
Prologis Inc	3.47%
Public Storage	2.74%
Equinix Inc	2.51%
Welltower Inc	2.20%
AvalonBay Communities Inc	2.16%
Equity Residential	2.15%

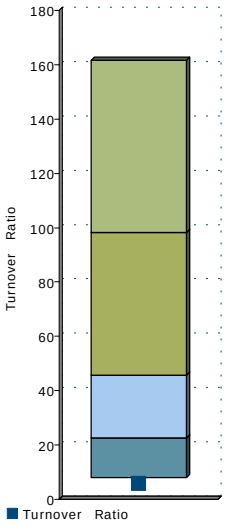
Portfolio Information	
Ticker	VGSNX
Morningstar Category	Real Estate
Avg Mkt Cap $MM	13091.92
Cat Med Mkt Cap $MM	15811.41
Net Assets $MM	53271.00
Turnover Ratio	6.00
% Assets in Top 10 Holdings	40.78
Total Number of Holdings	193.00
Manager Name	Gerard C. O'Reilly
Manager Tenure	22.65
Fund Incept Date	05/13/1996
Prospectus Exp Ratio	0.10
Phone Number	888-809-8102

Portfolio Ratings	
Mstar Rating	★★★
3 Year Mstar Rating	★★★
% Rank Cat 3 Yr	46
5 Year Mstar Rating	★★★
% Rank Cat 5 Yr	43
10 Year Mstar Rating	★★★
% Rank Cat 10 Yr	26

Expense Ratio vs. Peer Group



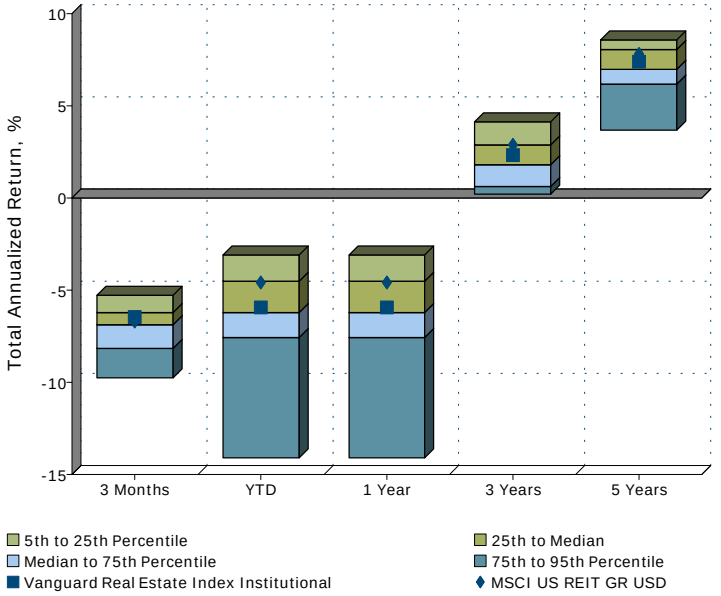
Turnover Ratio vs. Peer Group



Investment Strategy Summary

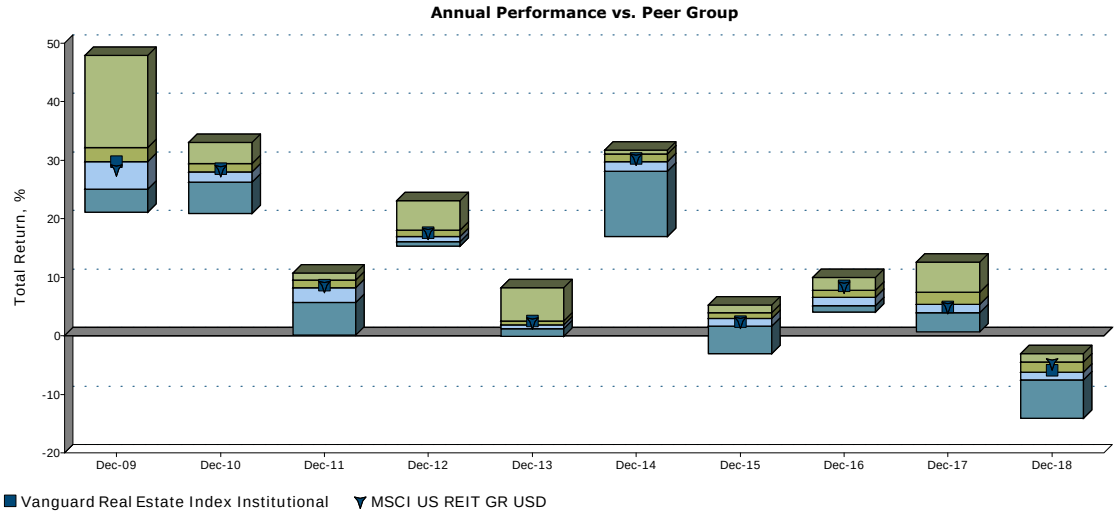
The investment seeks to provide a high level of income and moderate long-term capital appreciation by tracking the performance of the MSCI US Investable Market Real Estate 25/50 Index that measures the performance of publicly traded equity REITs and other real estate-related investments. The advisor 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 vs. Peer Group

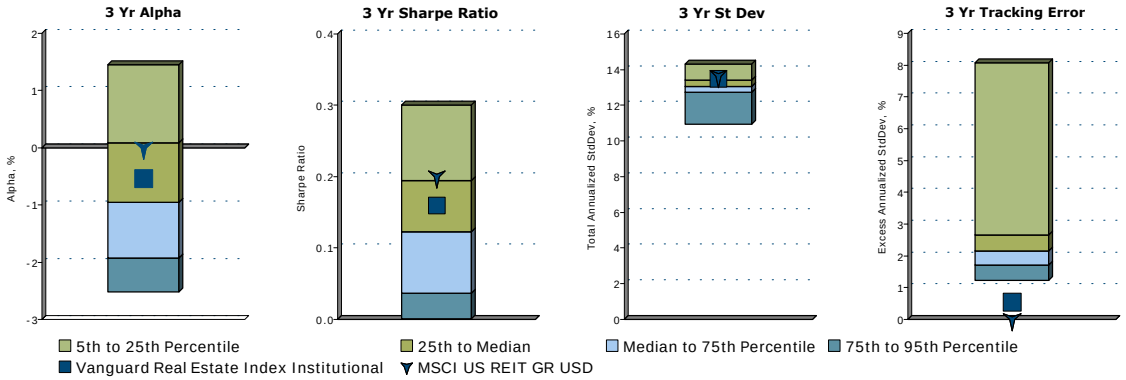


Performance	3 Months	Year to Date	1 Year	3 Years	5 Years
Vanguard Real Estate Index Institutional	-6.46	-5.93	-5.93	2.31	7.41
MSCI US REIT GR USD	-6.72	-4.57	-4.57	2.88	7.80
Universe(5%)	-5.28	-3.10	-3.10	4.13	8.57
Universe(25%)	-6.22	-4.51	-4.51	2.88	8.05
Universe(Median)	-6.89	-6.23	-6.23	1.80	6.98
Universe(75%)	-8.17	-7.57	-7.57	0.63	6.19
Universe(95%)	-9.75	-14.11	-14.11	0.22	3.70

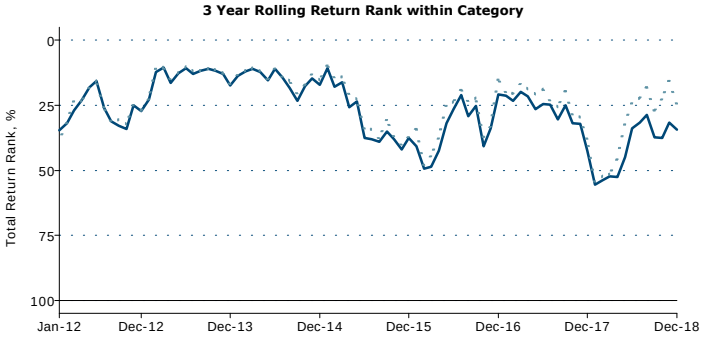
Vanguard Real Estate Index Institutional

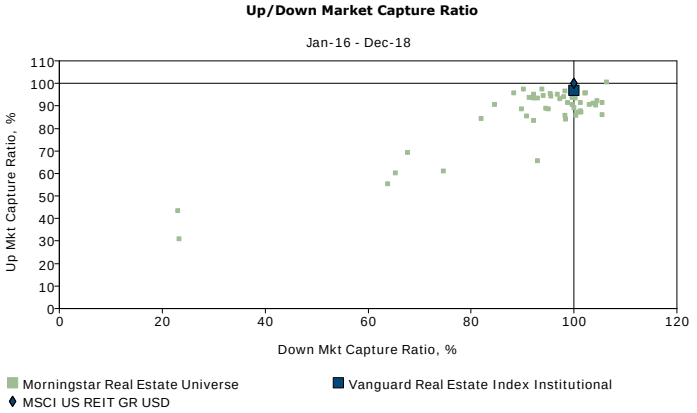


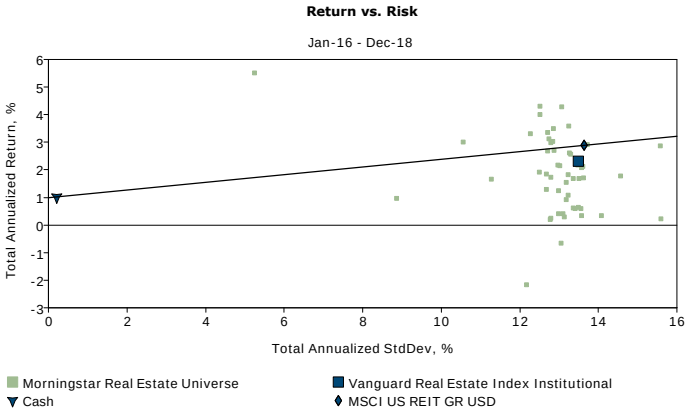
Annual Return %	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vanguard Real Estate Index Institutional	29.76	28.56	8.70	17.65	2.48	30.28	2.45	8.51	4.93	-5.93
MSCI US REIT GR USD	28.61	28.48	8.69	17.77	2.47	30.38	2.52	8.60	5.07	-4.57



MPT Statistics	3 Yr Alpha	3 Yr Beta	3 Yr R-Squared	3 Yr Sharpe Ratio	3 Yr St Dev	3 Yr Tracking Error	3 Yr Sortino
Vanguard Real Estate Index Institutional	-0.54	0.99	99.85	0.16	13.49	0.54	0.31
MSCI US REIT GR USD	0.00	1.00	100.00	0.20	13.64	0.00	0.40
Universe(5%)	1.46	0.99	99.30	0.30	14.30	8.07	0.67
Universe(25%)	0.09	0.97	98.58	0.19	13.42	2.65	0.40
Universe(Median)	-0.95	0.94	97.74	0.12	13.06	2.16	0.25
Universe(75%)	-1.93	0.92	96.37	0.04	12.73	1.71	0.08
Universe(95%)	-2.52	0.65	72.79	0.00	10.96	1.23	0.02







Glossary

Alpha (3 Yr)

Alpha is a measure of the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by beta. A positive alpha figure indicates the portfolio has performed better than its beta would predict. In contrast, a negative alpha indicates the portfolio has underperformed, given the expectations established by beta.

Average Effective Duration

A measure of a fund's interest-rate sensitivity--the longer a fund's duration, the more sensitive the fund is to shifts in interest rates. Duration is determined by a formula that includes coupon rates and bond maturities. Small coupons tend to increase duration, while shorter maturities and higher coupons shorten duration. The relationship between funds with different durations is straightforward: A fund with a duration of 10 years is twice as volatile as a fund with a five-year duration. Morningstar prints an average effective duration statistic that incorporates call, put, and prepayment possibilities.

Average Effective Maturity

Average effective maturity is a weighted average of all the effective maturities of the bonds in a portfolio. Effective maturity takes into consideration mortgage prepayments, puts, calls, adjustable coupons, and other features of individual bonds and is thus a more accurate measure of interest-rate sensitivity. Longer-maturity funds are generally considered more interest-rate sensitive than their shorter counterparts.

Beta

A measure of a fund's sensitivity to market movements. The beta of the market is 1.00 by definition. Morningstar calculates beta by comparing a fund's excess return over Treasury bills to the market's excess return over Treasury bills, so a beta of 1.10 shows that the fund has performed 10% better than its benchmark index in up markets and 10% worse in down markets, assuming all other factors remain constant. Conversely, a beta of 0.85 indicates that the fund's excess return is expected to perform 15% worse than the market's excess return during up markets and 15% better during down markets.

The Morningstar Rating

Commonly called the Star Rating, is a measure of a fund's risk-adjusted return, relative to funds in its category. Funds are rated from one to five stars, with the best performers receiving five stars and the worst performers receiving a single star.

Risk-adjusted return is calculated by subtracting a risk penalty from each fund total return, after accounting for all loads, sales charges, and redemption fees. The risk penalty is determined by the amount of variation in the fund's monthly return, with emphasis on downward variation. The greater the variation, the larger the penalty. Funds are ranked within their categories and stars are assigned as follows: Top 10% five stars; Next 22.5% four stars; Middle 35% three stars; Next 22.5% two stars; Bottom 10% one star.

Audited Expense Ratio

The percentage of fund assets paid for operating expenses and management fees, including 12b-1 fees, administrative fees, and all other asset-based costs incurred by the fund, except brokerage costs. Fund expenses are reflected in the fund's NAV . Sales charges are not included in the expense ratio.

Geometric Average Market Capitalization

Morningstar defines the overall "size" of a stock fund's portfolio as the geometric mean of the market capitalization for all of the stocks it owns. It's calculated by raising the market capitalization of each stock to a power equal to that stock's stake in the portfolio. The resulting numbers are multiplied together to produce the geometric mean of the market caps of the stocks in the portfolio, which is reported as average market capitalization.
This number is different from the fund's median market cap--the capitalization of the median stock in its portfolio. The geometric mean better identifies the portfolio's "center of gravity." That is, it provides more accurate insight into how market trends (as defined by capitalization) might affect the portfolio.

Net Assets

The month-end net assets of the mutual fund, recorded in millions of dollars. Net-asset figures are useful in gauging a fund's size, agility, and popularity. They help determine whether a small company fund, for example, can remain in its investment-objective category if its asset base reaches an ungainly size.

% Assets in Top 10 Holdings

The aggregate assets, expressed as a percentage, of the fund's top 10 portfolio holdings. This figure is meant to be a measure of portfolio risk. Specifically, the higher the percentage, the more concentrated the fund is in a few companies or issues, and the more the fund is susceptible to the market fluctuations in these few holdings. The figure is calculated from the most recent available fund holdings.

Price/Book Ratio TTM

The weighted average of the price/book ratios of all the stocks in a fund's portfolio. The P/B ratio of a company is calculated by dividing the market price of its stock by the company's per-share book value. Stocks with negative book values are excluded from this calculation. In theory, a high P/B ratio indicates that the price of the stock exceeds the actual worth of the company's assets, while a low P/B ratio indicates that the stock is a bargain.

Price/Earnings Ratio TTM

The weighted average of the price/earnings ratios of the stocks in a fund's portfolio. The P/E ratio of a stock is calculated by dividing the current price of the stock by its trailing 12 months' earnings per share. In computing the average, Morningstar weights each portfolio holding by the percentage of equity assets it represents, so that larger positions have proportionately greater influence on the fund's final P/E.

R-Squared

Reflects the percentage of a fund's movements that can be explained by movements in its benchmark index. An R-squared of 100 indicates that all movements of a fund can be explained by movements in the index. Thus, index funds that invest only in S&P 500 stocks will have an R-squared very close to 100. Conversely, a low R-squared indicates that very few of the fund's movements can be explained by movements in its benchmark index. An R-squared measure of 35, for example, means that only 35% of the fund's movements can be explained by movements in the benchmark index.

Sharpe Ratio

The Sharpe Ratio is a risk-adjusted measure developed by Nobel Laureate William Sharpe. It is calculated by using standard deviation and excess return to determine reward per unit of risk. The higher the Sharpe Ratio, the better the portfolio's historical risk-adjusted performance. It can be used to compare two portfolios directly on how much excess return each portfolio achieved for a certain level of risk.

Standard Deviation

Standard deviation is the statistical measurement of dispersion about an average, which depicts how widely a stock or portfolio's returns varied over a certain period of time. Investors use the standard deviation of historical performance to try to predict the range of returns that is most likely for a given investment. When a stock or portfolio has a high standard deviation, the predicted range of performance is wide, implying greater volatility.

Total Number of Holdings

The total number of different holdings of a fund. This figure is meant to be a measure of portfolio risk. Specifically, the lower the figure, the more concentrated the fund is in a few companies or issues, and the more the fund is susceptible to the market fluctuations in these few holdings. This figure also provides a context for the importance of % assets in top 10 holdings. The figure is calculated from the most recent available fund holdings. It does not include a fund's short positions.

Total Return

Expressed in percentage terms, Morningstar's calculation of total return is determined each month by taking the change in monthly net asset value, reinvesting all income and capital-gains distributions during that month, and dividing by the starting NAV. Reinvestments are made using the actual reinvestment NAV, and daily payoffs are reinvested monthly.

Turnover Ratio

This is a measure of the fund's trading activity which is computed by taking the lesser of purchases or sales (excluding all securities with maturities of less than one year) and dividing by average monthly net assets. A turnover ratio of 100% or more does not necessarily suggest that all securities in the portfolio have been traded. In practical terms, the resulting percentage loosely represents the percentage of the portfolio's holdings that have changed over the past year.

12-Month Yield

Also known as a distribution yield, Morningstar computes this figure by summing the trailing 12-month's income distributions and dividing the sum by the last month's ending NAV, plus any capital gains distributed over the same period. Income refers only to interest payments from fixed-income securities and dividend payoffs from common stocks.

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