

City of Memphis Retirement System OPEB Report

Analysis of Investment Performance

Quarter Ending March 31, 2024

Rosemary E. Guillette

Vice President

TABLE OF CONTENTS

SECTION

FINANCIAL MARKET CONDITIONS	1
TOTAL FUND	2
VANGUARD TOTAL STOCK MARKET INDEX FUND	3
VANGUARD DEVELOPED MARKETS INDEX FUND	4
VANGUARD TOTAL BOND MARKET INDEX FUND	5
APPENDIX	6

This performance report ("Report") is based upon information obtained by Segal Marco Advisors, Inc. ("SMA") from third parties over which SMA does not exercise any control. Although the information collected by SMA is believed to be reliable, SMA cannot verify or guarantee the accuracy or validity of such information or the uniformity of the manner in which such information was prepared. The rates of return reflected herein are time weighted and geometrically linked on a monthly basis using a modified Dietz method. Monthly valuations and returns are calculated based on the assumptions that all transactions and prices are accurate from the custodian and/or investment manager. The client to whom Segal Marco Advisors delivers this Report ("Client") agrees and acknowledges that this Report has been prepared solely for the benefit of Client. SMA disclaims any and all liability that may arise in connection with Client's conveyance (whether or not consented to by SMA) of this Report (in whole or in part) to any third party. Client further agrees and acknowledges that SMA shall have no liability, whatsoever, resulting from, or with respect to, errors in, or incompleteness of, the information obtained from third parties. Client understands that the prior performance of an investment and/or investment manager is not indicative of such investment's and/or investment manager's future performance. This Report does not constitute an offer or a solicitation of an offer for the purchase or sale of any security nor is it an endorsement of any custodian, investment and/or investment manager.

Financial Market Conditions

Quarter in Review: Global Equity Overview

Equity Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
S&P 500	10.56	10.56	29.88	11.49	15.05	12.96
MSCI Europe, Australasia and Far East (EAFE)*	5.78	5.78	15.32	4.78	7.33	4.80
MSCI Emerging Markets (EM)*	2.37	2.37	8.15	-5.05	2.22	2.95

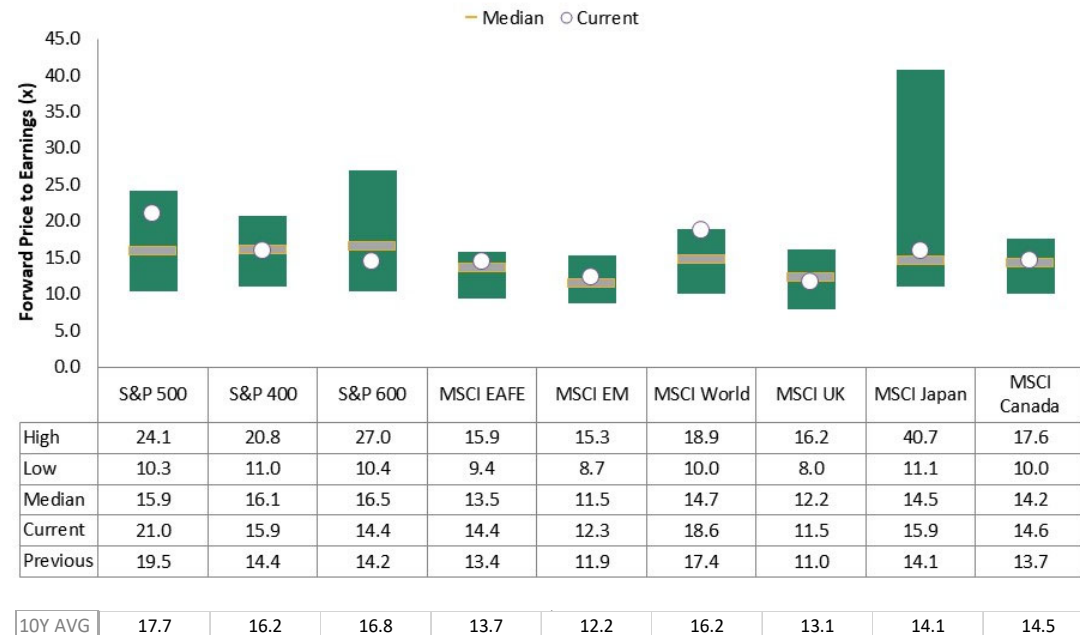
All data in the table are percentages.

* Net dividends reinvested

Global Equity Performance and Valuations

- Global equity markets were positive returns in the first quarter of 2024, led by the U.S. (+10.6%) followed by International Developed (+5.8%) and Emerging Markets (+2.4%).
- U.S. large capitalization (“cap”) stocks continue to trade at higher valuations as the S&P 500’s [12 month] forward P/E ratio was 21.0 compared to 19.5 at the end of the fourth quarter 2023 and above its 10-year average of 17.7.
- International developed large cap stocks, per the MSCI EAFE Index, had a [12 month] forward P/E ratio of 14.4, up from 13.4 the previous quarter but still relatively close to its 10-year average of 13.7.
- Emerging market equities, per the MSCI Emerging Markets Index, in the first quarter were just a tick above its 10-year average valuation (12 month forward P/E ratio of 12.3 to 12.2) while also up from the previous quarter (11.9).

Price to Earnings



Data range is from 3/31/00-3/31/24. P/E ratios are forward 12 months.

Quarter In Review: U.S. Equity

U.S. Equity Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
S&P 500	10.56	10.56	29.88	11.49	15.05	12.96
Russell 1000	10.30	10.30	29.87	10.45	14.76	12.68
Russell 1000 Growth	11.41	11.41	39.00	12.50	18.52	15.98
Russell 1000 Value	8.99	8.99	20.27	8.11	10.32	9.01
Russell 2000	5.18	5.18	19.71	-0.10	8.10	7.58
Russell 2000 Growth	7.58	7.58	20.35	-2.68	7.38	7.89
Russell 2000 Value	2.90	2.90	18.75	2.22	8.17	6.87
Russell Midcap	8.60	8.60	22.35	6.07	11.10	9.95
Russell 3000	10.02	10.02	29.29	9.78	14.34	12.33

All data in the tables are percentages.

Performance

- The U.S. economy demonstrated continued strength, as the S&P 500 gained over 10% in the quarter ending March 31.
- To start 2024, large cap stocks (+10.3%) led the way while mid cap (+8.6%) and small cap (+5.2%) stocks also posted positive returns in the first quarter.
- Large cap growth at +11.4% continues its outperformance over large cap value at +9.0%. Similarly, growth also beat out value amongst small caps (+7.6% vs. +2.9%), a reversion from the previous quarter ending December 31, 2023.
- All sectors in the S&P 500 Index generated positive returns in the first quarter except for Real Estate (-0.6%), which has underperformed due to higher interest rates and negative valuations in many sectors. Materials, which tends to be closely linked to the economic cycle, led the index by posting +15.8% in the quarter ending March 31.

S&P 500 Sector Returns	QTD	1-Year
Communication Services	4.98	28.73
Consumer Discretionary	7.52	7.19
Consumer Staples	13.69	17.67
Energy	12.46	33.55
Financials	8.85	16.09
Healthcare	10.97	26.70
Industrials	12.69	46.01
Information Technology	8.95	17.57
Materials	15.82	49.76
Real Estate	-0.55	9.60
Utilities	4.57	0.42

Quarter in Review: International Equity

MSCI International Equity Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
World ex. U.S.	5.59	5.59	15.29	4.93	7.48	4.81
EAFE	5.78	5.78	15.32	4.78	7.33	4.80
EAFE Local Currency	9.96	9.96	18.82	9.43	9.36	7.66
Europe	5.23	5.23	14.11	6.19	7.96	4.44
Europe ex U.K.	5.86	5.86	15.09	5.72	8.91	4.97
U.K.	3.10	3.10	10.86	7.70	5.14	2.89
Japan	11.01	11.01	25.78	3.69	7.77	6.69
Pacific ex Japan	-1.73	-1.73	2.39	-0.52	2.96	3.42

All data in the tables are percentages and net dividends reinvested.

Performance

- International developed markets (+5.8%) finished positive but continued to trail the U.S. (+10.6%) during the first quarter of 2024.
- Japan (+11.0%) posted the strongest returns for the quarter with increased optimism over Japan's positive economic cycle, characterized by mild inflation and wage growth.
- Signs of improving business activity in Europe and continued optimism over demand for AI related technologies boosted positive returns (+5.2%) for the quarter. UK equities were also up for the quarter (+ 3.1%) as financials, industrials, energy, and other economically sensitive areas of the market outperformed.
- Industrials (+14.3%), Communication Services (+11.1%), and Energy (+8.6%) led the International market during the quarter. Real Estate (-5.0%), Consumer Discretionary (-3.1%), and IT (-1.1%) lagged the market as the only sectors to post negative returns.

MSCI EAFE Sector Returns	QTD	1-Year
Communication Services	11.06	15.48
Consumer Discretionary	-3.12	-5.92
Consumer Staples	2.22	14.55
Energy	8.55	25.82
Financials	4.74	8.61
Healthcare	7.85	23.06
Industrials	14.33	31.12
Information Technology	-1.09	10.23
Materials	4.06	6.60
Real Estate	-5.03	2.69
Utilities	1.49	13.05

Quarter in Review: Emerging Market Equity

MSCI EM Equity Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
Emerging Markets	2.37	2.37	8.15	-5.05	2.22	2.95
EM Local Currency	4.49	4.49	10.61	-2.36	4.38	5.73
Asia	3.35	3.35	6.27	-6.54	2.82	4.50
EMEA	1.04	1.04	10.50	-5.05	-1.18	-1.49
Latin America	-3.96	-3.96	22.64	10.46	3.68	1.67

All data in the tables are percentages and net dividends reinvested.

Performance

- Emerging Market equities (+2.4%) lagged U.S. (+10.6%) and International Developed equities (+5.8%) during the quarter.
- China continued to see diminishing returns as ongoing tension between China and the U.S. weighed on investor sentiment. Despite China's underperformance, Asia posted positive returns with Taiwan benefitting from investor enthusiasm over AI and the tech sector.
- Latin America posted negative returns for the quarter after a year of strong positive returns in 2023 as the delay in expectations from the Federal Reserve interest rate cuts negatively impacted interest rate sensitive markets, including Brazil.
- Industrials (+9.9%), Consumer Staples (+6.9%), and Real Estate (+3.5%) were the strongest sectors in Emerging Markets while multiple sectors including Utilities (-6.0%), IT (-4.6%), Financials (-4.5%), and Consumer Discretionary (-4.3%) posted negative returns.

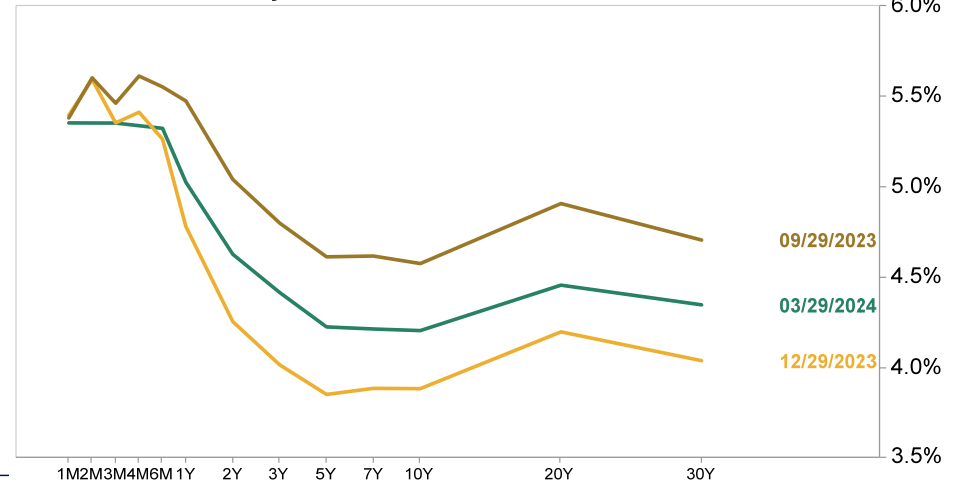
MSCI EM Sector Returns	QTD	1-Year
Communication Services	-0.45	-5.27
Consumer Discretionary	-4.26	-2.56
Consumer Staples	6.91	35.99
Energy	2.31	15.05
Financials	-4.54	-0.93
Healthcare	1.39	4.60
Industrials	9.86	26.73
Information Technology	-4.59	-5.38
Materials	0.77	-11.51
Real Estate	3.52	17.91
Utilities	-5.96	-11.26

Quarter In Review: Fixed Income Overview

Yield Curve

- The US Treasury Yield Curve saw a parallel shift in the intermediate to long part of the curve in Q1 2024 as yields rose while the 1- and 3-Month T-Bill yields remained mostly unchanged. The Federal Reserve appears willing to hold off on rate cuts until further positive indicators on inflation reduction progress are available.
- Short-term yields rose the least, with the 6-Month T-Bill increasing by 6 bps over the prior quarter.
- 2-, 3- and 5-year Treasury yields increased the most by 37 bps, 40 bps and 37 bps respectively, ending the quarter at 4.62%, 4.41% and 4.22%.

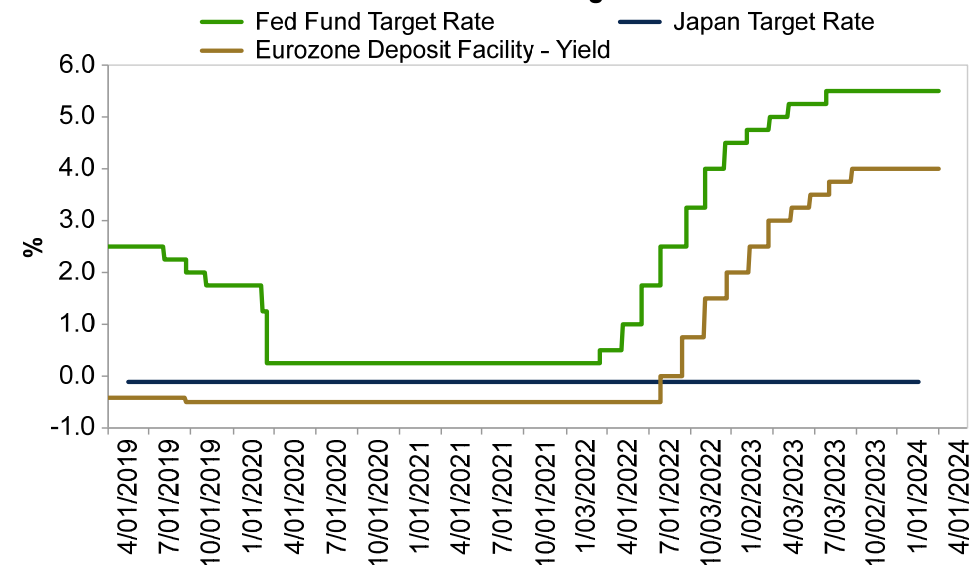
United States Treasury Yield Curve



Monetary Policies/Global Interest Rates

- Japan concluded its eight-year period of negative interest rates with central bank deposit rates rising to end the quarter at 0.10%. The European Central Bank's policy rate ended the quarter at 4.50% while the policy rate in the United Kingdom ended the quarter at 5.25%.
- The U.S. policy rate at 5.50% is above those of the Eurozone, the United Kingdom and Japan.

Central Bank Target Rates



Interest Rates	Fed Funds Rate	EZ Deposit Facility Rate
Average	4.95	0.96
Max	20.00	4.00
Min	0.25	-0.50

Quarter In Review: U.S. Fixed Income

U.S. Fixed Income Indices*	QTD	YTD	1-Year	3-Year	5-Year	10-Year
U.S. Aggregate	-0.78	-0.78	1.70	-2.46	0.36	1.54
Government/Credit	-0.72	-0.72	1.74	-2.35	0.62	1.70
Government	-0.93	-0.93	0.13	-2.68	-0.04	1.05
Investment Grade Credit	-0.40	-0.40	4.43	-1.87	1.52	2.61
Investment Grade CMBS	1.00	1.00	4.56	-1.39	1.16	2.07
U.S. Corporate High Yield	1.47	1.47	11.15	2.19	4.21	4.44
FTSE** 3-Month T-Bill	1.37	1.37	5.52	2.70	2.07	1.39
Hueller Stable Value	0.55	1.87	1.87	1.96	2.13	1.97

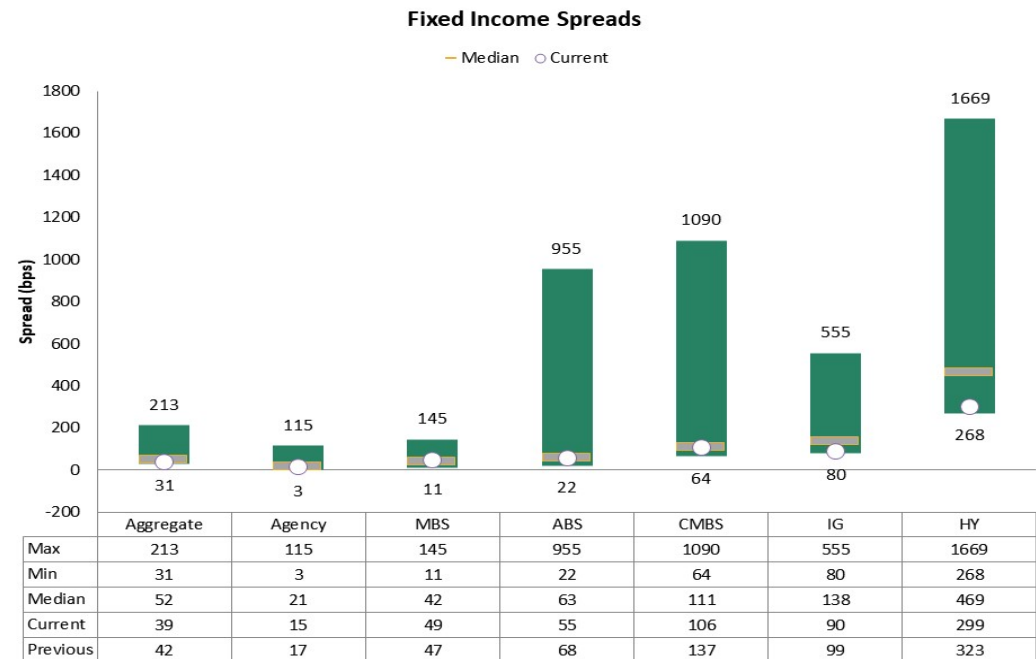
* Bloomberg Indices, unless otherwise noted.

** Formerly Citigroup. Citigroup's fixed income indices were purchased by London Stock Exchange Group (LSEG) and were rebranded to FTSE by July 31, 2018. FTSE Russell is a unit of LSEG's Information Services Division and a wholly owned subsidiary of LSEG.

All data in the table are percentages.

Performance and Spreads

- The U.S. Aggregate Index was negative during the first quarter. With the exception of CMBS, all U.S. Aggregate Index sectors generated negative returns for the quarter.
- U.S. Corporate High Yield had the strongest performance at +1.47% for the quarter. The government sector experienced the weakest performance in the quarter ended March 31 (-0.93%).
- For the quarter, MBS spreads slightly widened while the spreads on the US Aggregate Index, Agency, ABS, CMBS, IG Credit and High Yield narrowed. The largest change was in the High Yield sector with spreads narrowing by 24 basis points.



Quarter In Review: International Fixed Income

Global Fixed Income Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
Bloomberg Global Aggregate	-2.08	-2.08	0.49	-4.73	-1.17	-0.07
Bloomberg Global Aggregate (Hgd)	0.01	0.01	4.14	-1.29	0.80	2.21
FTSE Non-U.S. WGBI*	-3.42	-3.42	-1.46	-8.39	-3.73	-1.91
FTSE Non-U.S. WGBI (Hgd)	0.20	0.20	4.66	-2.01	0.15	2.30
JPM EMBI Global Diversified**	2.04	2.04	11.28	-1.40	0.71	3.05
JPM GBI-EM Global Diversified***	-2.12	-2.12	4.91	-1.60	0.13	-0.32

All data in the table are percentages.

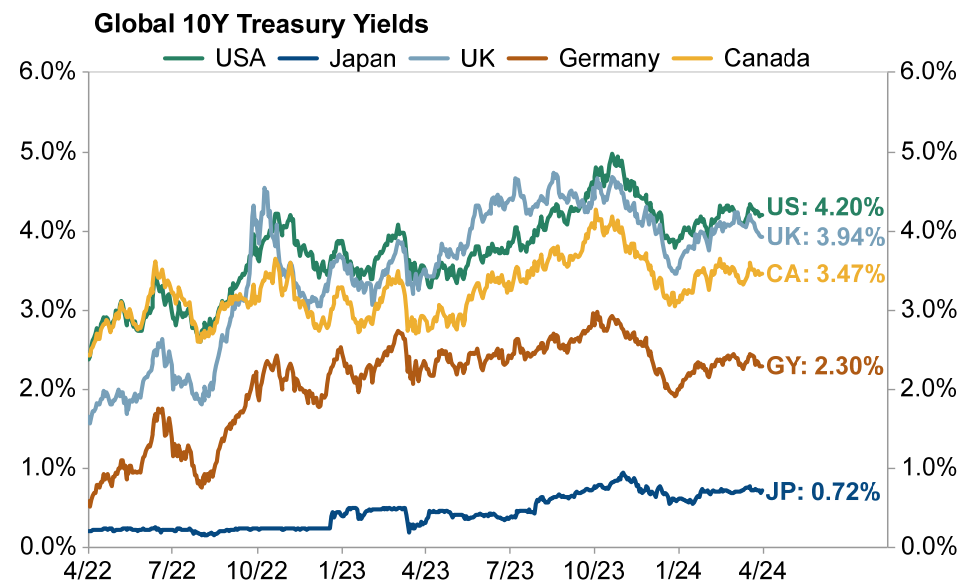
* Formerly Citigroup. The FTSE Non-U.S. World Government Bond Index (WGBI) measures the performance of fixed-rate, local currency, investment grade sovereign bonds excluding the U.S.

** The JP Morgan Emerging Market Bond Index (EMBI) Global Diversified index measures government bonds in hard currencies.

*** The JP Morgan Government Bond Index – Emerging Markets (GBI-EM) Global Diversified index measures government bonds in local currencies.

Global Performance and Yields

- Yields declined in most developed markets during the quarter. Both the ECB and the Bank of England kept policy rates unchanged during the first quarter in an effort to move inflation closer to its 2% target.
- Global central banks kept interest rates at record highs due to fears of inflation resurgence.
- The U.S. dollar appreciated relative to the yen, British pound and Euro.
- Global returns were negative for the quarter ended March 31, with Non-U.S. sovereign bonds exhibiting the weakest performance.



Total Fund Composite

City of Memphis OPEB Trust

Asset Allocation Comparison

Portfolio Value 3/31/24

\$4,649,476

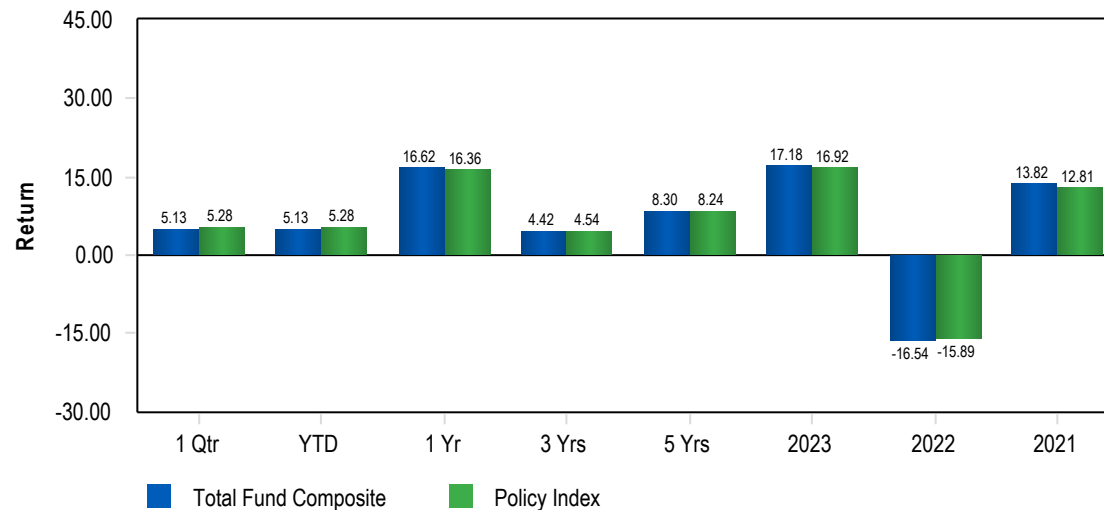
<u>Target Allocations</u>			<u>Current Managers & Allocations</u>			<u>Difference</u>	<u>Range</u>
<u>Equity</u>		(000)			(000)		
Domestic Equity	47.50%	\$2,209	Vanguard Total Stock Market Index	52.77%	\$2,453		40.0%-55.0%
International Equity	15.00%	\$697	Vanguard Developed Market Index	13.33%	\$620		10.0%-20.0%
<i>Equity Total</i>	62.50%	\$2,906	<i>Equity Total</i>	66.10%	\$3,073	3.60%	50.0%-65.0%¹
<u>Fixed Income</u>							
Fixed Income	37.50%	\$1,744	Vanguard Total Bond Market Index	33.90%	\$1,576		
<i>Fixed Income Total</i>	37.50%	\$1,744	<i>Fixed Income Total</i>	33.90%	\$1,576	-3.60%	30.0%-45.0%
Internal Account	0.00%	\$0	Fidelity Money Market Fund	0.00%	\$0		
<i>Cash</i>	0.00%	\$0	<i>Cash</i>	0.00%	\$0		0%-2%
Total	100%	\$4,649	Total	100%	\$4,649		

¹ Total Equity may not exceed 65%.

Asset Allocation by Segment

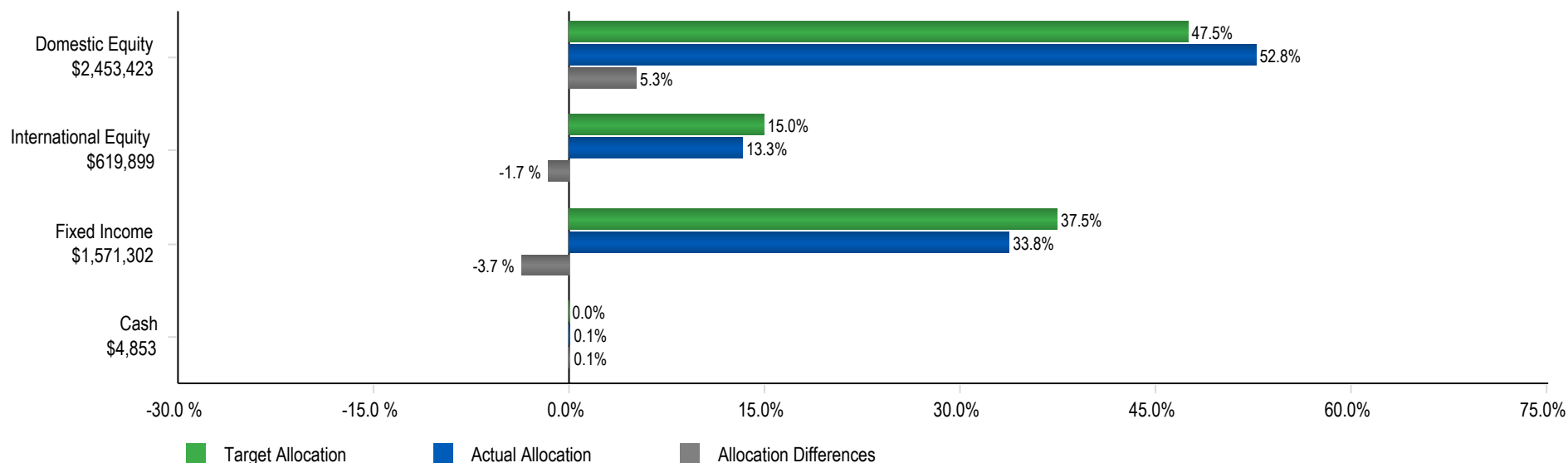
Segments	Market Value (\$)	Allocation (%)
Domestic Equity	2,453,423	52.8
Domestic Fixed Income	1,571,302	33.8
International Equity	619,899	13.3
Cash	4,853	0.1

Performance Bar Chart



Gain / Loss

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs
Total Fund Composite					
Beginning Market Value	4,422,411	4,422,411	3,986,927	4,080,830	3,118,349
Net Cash Flows					
Income	176	176	34,361	172,104	378,146
Gain/Loss	226,889	226,889	628,188	396,542	1,152,981
Ending Market Value	4,649,476	4,649,476	4,649,476	4,649,476	4,649,476



	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)	Differences (%)	Minimum Allocation (%)	Maximum Allocation (%)
Domestic Equity	2,453,423	52.8	47.5	5.3	40.0	55.0
International Equity	619,899	13.3	15.0	-1.7	10.0	20.0
Fixed Income	1,571,302	33.8	37.5	-3.7	30.0	45.0
Cash	4,853	0.1	0.0	0.1	0.0	2.0
Total Fund	4,649,476	100.0	100.0	0.0		

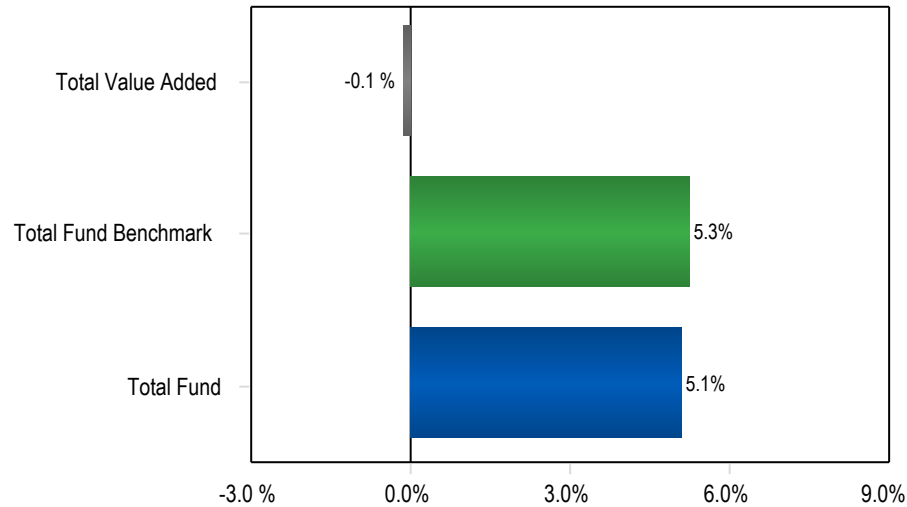
	Total Fund	
	(\$)	%
Total Fund Composite	4,649,476	100.0
Vanguard Total Stock Market	2,453,423	52.8
Vanguard Developed Markets Index	619,899	13.3
Vanguard Total Bond Market	1,575,995	33.9
Fidelity Money Market Fund	159	0.0

	Performance (%)								Inception Date
	1 Quarter	Year To Date	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	
Total Fund Composite	5.1	5.1	16.6	4.4	8.3	8.0	7.3	7.8	07/01/2008
<i>Policy Index</i>	5.3	5.3	16.4	4.5	8.2	8.0	7.3	7.6	
All Public Plans-Total Fund Median	4.7	4.7	13.3	4.4	8.0	7.8	7.1	7.1	
Total Fund Composite Rank	30	30	10	51	38	43	39	11	
Vanguard Total Stock Market	9.5	9.5	29.4	9.6	14.2	13.4	12.3	11.3	07/01/2008
<i>Russell 3000 Index</i>	10.0	10.0	29.3	9.8	14.3	13.4	12.3	11.3	
IM U.S. Multi-Cap Equity (MF) Median	10.0	10.0	25.9	8.4	12.0	11.3	10.0	9.6	
Vanguard Total Stock Market Rank	58	58	34	35	26	26	19	18	
Vanguard Developed Markets Index	5.1	5.1	14.9	3.9	7.3	6.7	5.0	7.3	01/01/2012
<i>Developed Market Policy Index</i>	5.2	5.2	15.6	4.2	7.7	7.0	5.3	7.6	
IM International Equity (MF) Median	4.4	4.4	12.0	1.0	5.9	5.7	4.1	6.3	
Vanguard Developed Markets Index Rank	36	36	29	24	27	28	27	27	
Vanguard Total Bond Market	-1.1	-1.1	1.7	-2.4	0.4	1.1	1.5	2.7	07/01/2008
<i>Blmbg. U.S. Aggregate</i>	-0.8	-0.8	1.7	-2.5	0.4	1.1	1.5	2.8	
IM U.S. Broad Market Core Fixed Income (MF) Median	-0.5	-0.5	2.1	-2.5	0.5	1.1	1.5	2.9	
Vanguard Total Bond Market Rank	99	99	66	37	56	53	48	63	
Fidelity Money Market Fund	1.3	1.3	5.1	2.5	1.8	1.7	1.2	1.3	10/01/2014
<i>90 Day U.S. Treasury Bill</i>	1.3	1.3	5.2	2.6	2.0	1.9	1.4	1.4	
IM U.S. Taxable Money Market (MF) Median	1.3	1.3	5.1	2.5	1.8	1.7	1.2	1.2	
Fidelity Money Market Fund Rank	50	50	52	52	52	49	48	48	

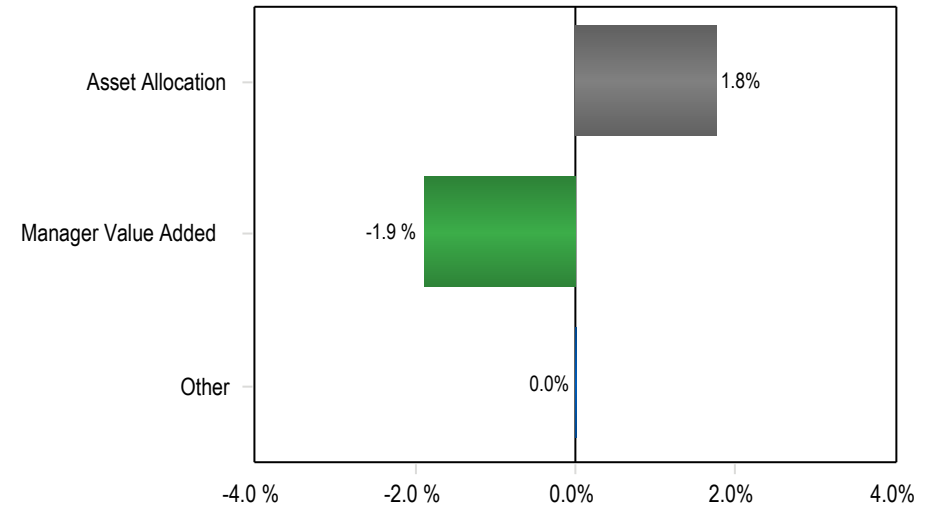
	Performance (%)									
	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total Fund Composite	17.2	-16.5	13.8	14.9	21.0	-4.7	15.0	7.4	0.3	7.1
Policy Index	16.9	-15.9	12.8	14.6	21.2	-4.4	14.8	7.3	0.6	7.4
Vanguard Total Stock Market	26.5	-19.5	25.7	21.0	30.8	-5.2	21.2	12.7	0.4	12.5
Russell 3000 Index	26.0	-19.2	25.7	20.9	31.0	-5.2	21.1	12.7	0.5	12.6
Vanguard Developed Markets Index	17.7	-15.3	11.4	10.3	21.9	-14.6	26.3	2.4	-0.3	-5.7
Developed Market Policy Index	18.3	-15.3	11.9	10.3	22.7	-14.5	26.7	2.7	0.0	-4.6
Vanguard Total Bond Market	6.0	-13.2	-1.7	7.7	8.7	0.0	3.6	2.6	0.4	6.0
Blmbg. U.S. Aggregate	5.5	-13.0	-1.5	7.5	8.7	0.0	3.5	2.6	0.5	6.0
Fidelity Money Market Fund	4.9	1.4	0.0	0.3	1.9	1.6	0.6	0.1	0.0	0.0
90 Day U.S. Treasury Bill	5.0	1.5	0.0	0.7	2.3	1.9	0.9	0.3	0.0	0.0

	Performance (%)									
	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Vanguard Total Stock Market	26.5	-19.5	25.7	21.0	30.8	-5.2	21.2	12.7	0.4	12.5
<i>Russell 3000 Index</i>	26.0	-19.2	25.7	20.9	31.0	-5.2	21.1	12.7	0.5	12.6
IM U.S. Multi-Cap Equity (MF) Median	20.5	-17.4	24.7	14.7	28.2	-7.1	20.5	10.0	-1.4	10.5
Vanguard Total Stock Market Rank	26	60	41	34	30	33	44	33	37	25
Vanguard Developed Markets Index	17.7	-15.3	11.4	10.3	21.9	-14.6	26.3	2.4	-0.3	-5.7
<i>Developed Market Policy Index</i>	18.3	-15.3	11.9	10.3	22.7	-14.5	26.7	2.7	0.0	-4.6
IM International Equity (MF) Median	15.2	-19.0	8.5	13.7	22.1	-16.0	28.6	1.8	-2.3	-4.5
Vanguard Developed Markets Index Rank	30	31	32	60	51	36	64	47	36	64
Vanguard Total Bond Market	6.0	-13.2	-1.7	7.7	8.7	0.0	3.6	2.6	0.4	6.0
<i>Blmbg. U.S. Aggregate</i>	5.5	-13.0	-1.5	7.5	8.7	0.0	3.5	2.6	0.5	6.0
IM U.S. Broad Market Core Fixed Income (MF) Median	5.8	-13.7	-1.3	8.2	8.8	-0.6	3.6	2.9	0.0	5.5
Vanguard Total Bond Market Rank	38	27	65	65	53	20	52	64	32	28
Fidelity Money Market Fund	4.9	1.4	0.0	0.3	1.9	1.6	0.6	0.1	0.0	0.0
<i>90 Day U.S. Treasury Bill</i>	5.0	1.5	0.0	0.7	2.3	1.9	0.9	0.3	0.0	0.0
IM U.S. Taxable Money Market (MF) Median	4.9	1.4	0.0	0.3	1.9	1.5	0.5	0.1	0.0	0.0
Fidelity Money Market Fund Rank	52	57	57	56	46	47	45	43	54	48

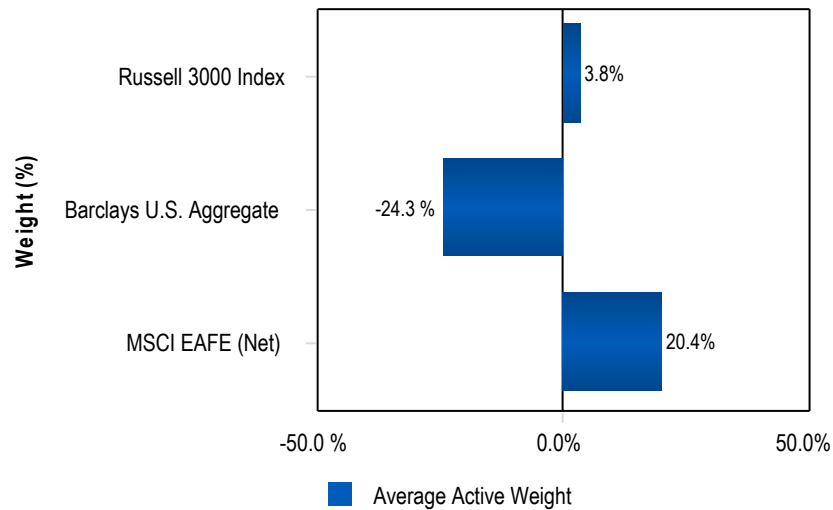
Total Fund Performance



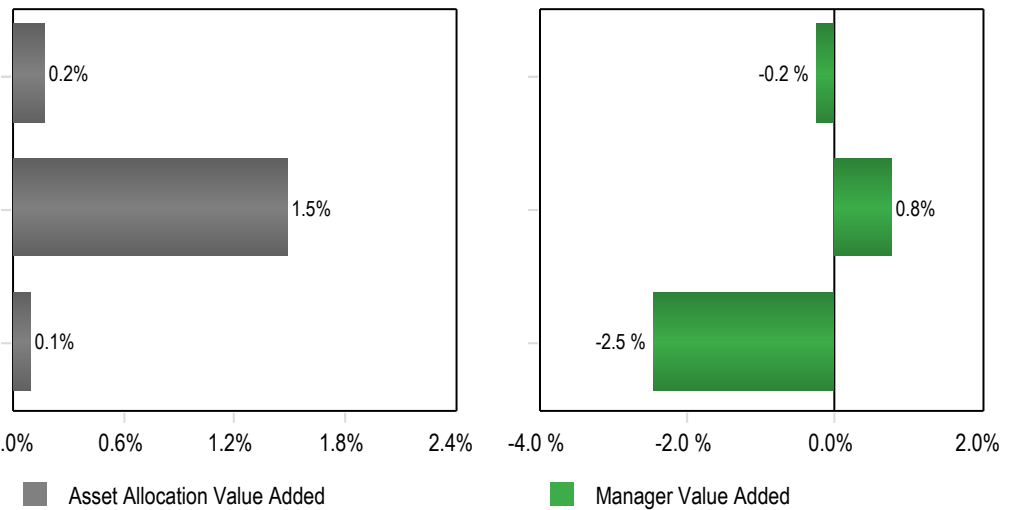
Total Value Added:-0.1 %

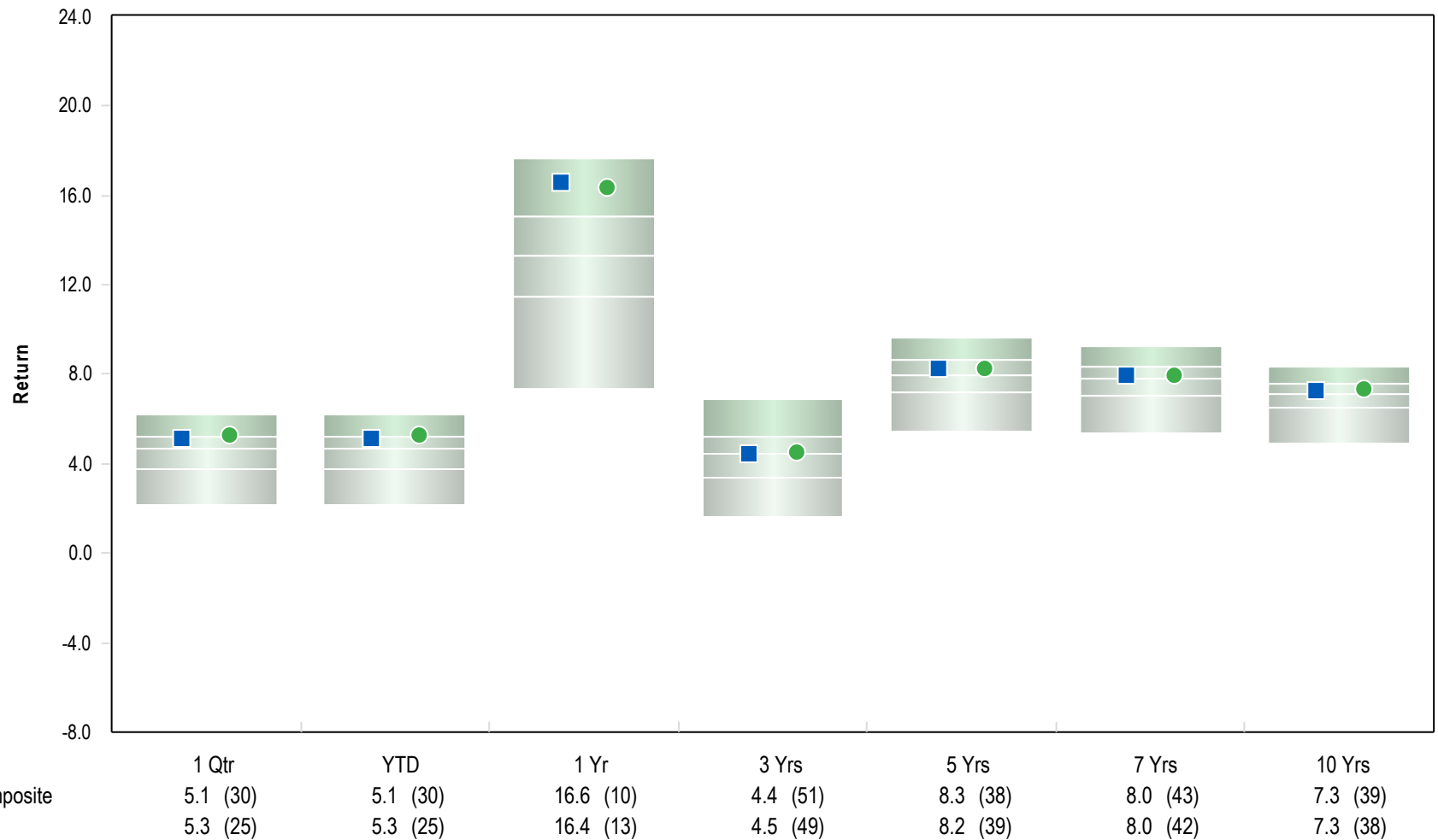


Total Asset Allocation:1.8%



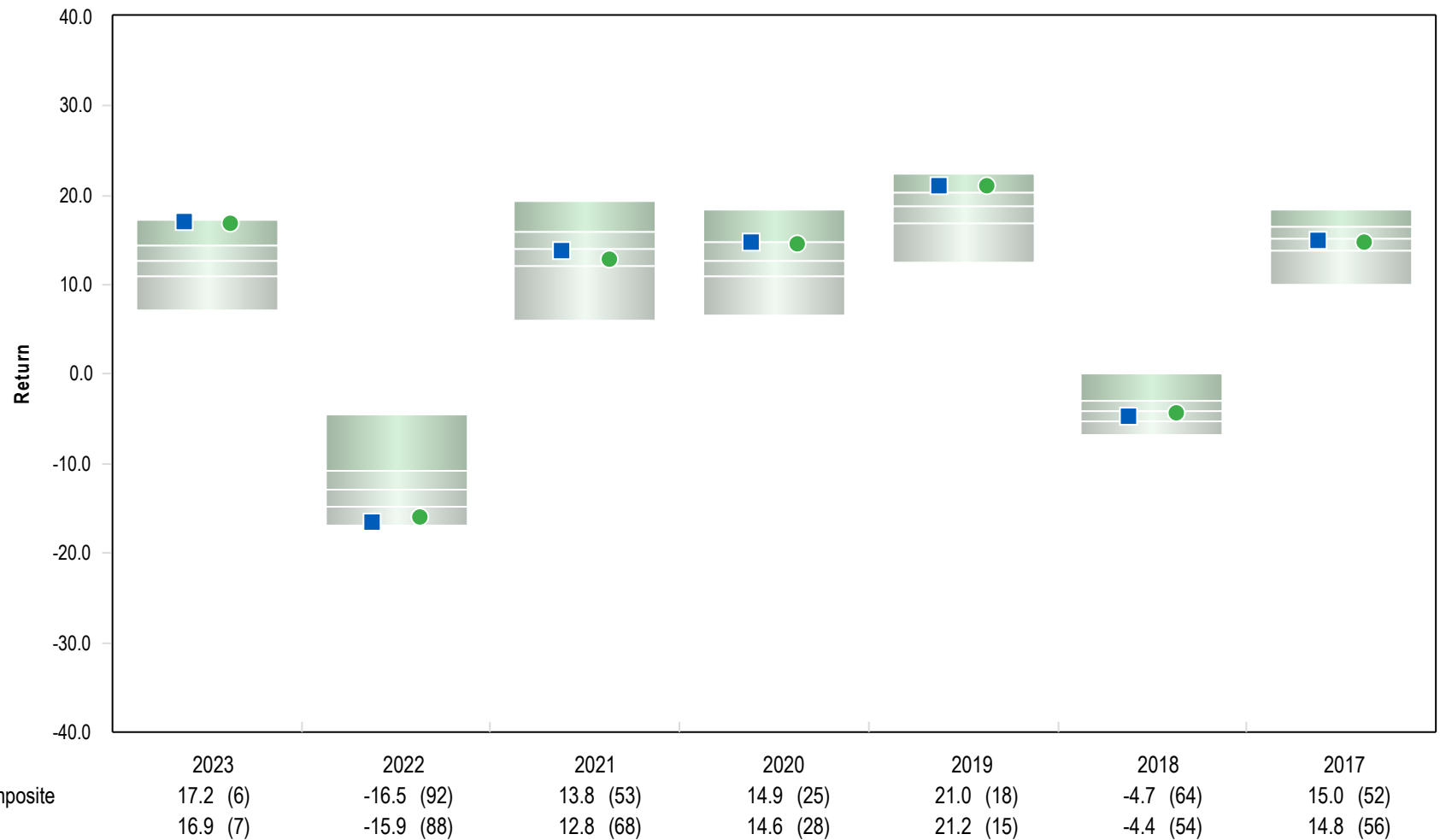
Total Manager Value Added:-1.9 %





5th Percentile	6.2	6.2	17.7	6.9	9.7	9.2	8.3
1st Quartile	5.2	5.2	15.1	5.2	8.7	8.4	7.6
Median	4.7	4.7	13.3	4.4	8.0	7.8	7.1
3rd Quartile	3.8	3.8	11.5	3.3	7.2	7.1	6.5
95th Percentile	2.2	2.2	7.3	1.6	5.4	5.4	4.9

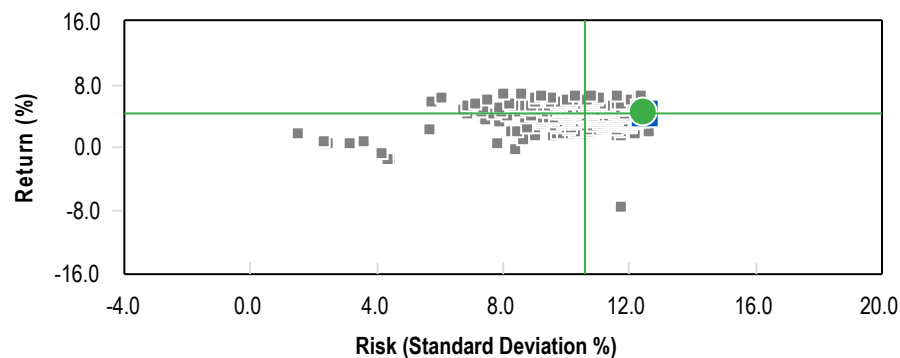
Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



5th Percentile	17.3	-4.6	19.4	18.4	22.5	0.0	18.4
1st Quartile	14.3	-10.9	16.0	14.9	20.4	-3.0	16.4
Median	12.7	-13.0	14.0	12.8	18.7	-4.2	15.1
3rd Quartile	11.0	-14.9	12.2	11.1	16.8	-5.2	13.8
95th Percentile	7.2	-16.9	6.0	6.6	12.4	-6.9	10.1

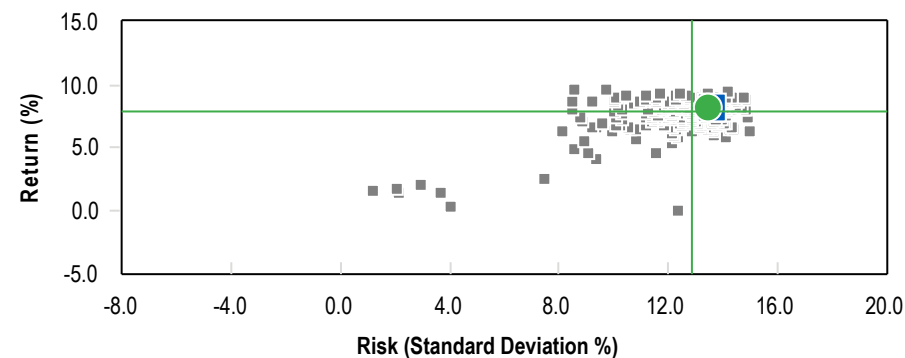
Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Risk & Return Plan Sponsor — 3 Years



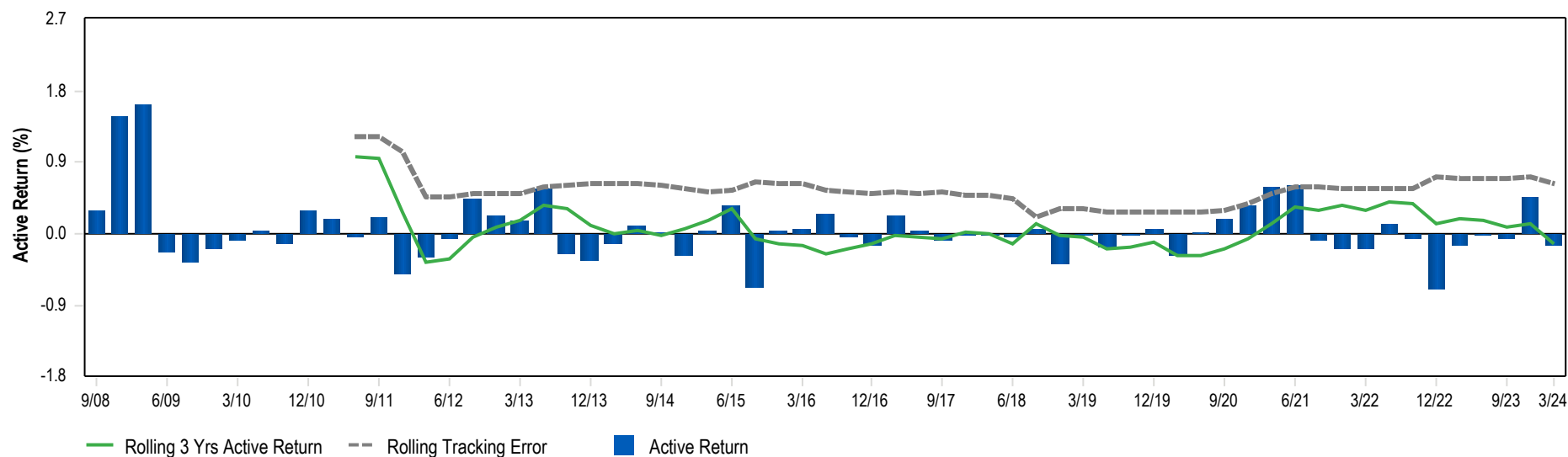
	Return	Standard Deviation
Total Fund Composite	4.4	12.5
Policy Index	4.5	12.5
Median	4.4	10.6

Risk & Return Plan Sponsor — 5 Years



	Return	Standard Deviation
Total Fund Composite	8.3	13.6
Policy Index	8.2	13.4
Median	8.0	12.9

Rolling Return and Tracking Error



Policy Index	Weight (%)
Jun-2003	
Russell 3000 Index	62.5
Blmbg. U.S. Aggregate	37.5
Jan-2012	
Russell 3000 Index	47.5
Blmbg. U.S. Aggregate	37.5
MSCI EAFE (Net)	15.0

Policy Index	Weight (%)
Jan-2012 MSCI EAFE Index	100.0
Jun-2013 FTSE Developed x North America Index	100.0
Jan-2016 FTSE Developed All-Cap ex US Transition Index	100.0
Jun-2016 FTSE Developed All Cap ex-U.S. Index	100.0

Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	%Return
From 06/2008	2,910,974		-474,478	2,436,496	-16.3
2009	2,436,496	6,000,000	1,023,156	9,459,652	21.3
2010	9,459,652	1,000,000	1,445,483	11,905,135	13.6
2011	11,905,135		455,833	12,360,968	3.8
2012	12,360,968	-929,020	2,479,823	13,911,771	12.4
2013	13,911,771	1,188,894	1,634,497	16,735,162	17.8
2014	16,735,162	-9,032,562	1,030,125	8,732,726	7.1
2015	8,732,726	-6,540,086	233,076	2,425,715	0.3
2016	2,425,715		179,552	2,605,267	7.4
2017	2,605,267	1	391,729	2,996,996	15.0
2018	2,996,996		-141,433	2,855,563	-4.7
2019	2,855,563		600,131	3,455,694	21.0
2020	3,455,694		513,928	3,969,622	14.9
2021	3,969,622		552,241	4,521,862	13.8
2022	4,521,862		-747,857	3,774,005	-16.5
2023	3,774,005		648,406	4,422,411	17.2
To 03/2024	4,422,411		227,065	4,649,476	5.1

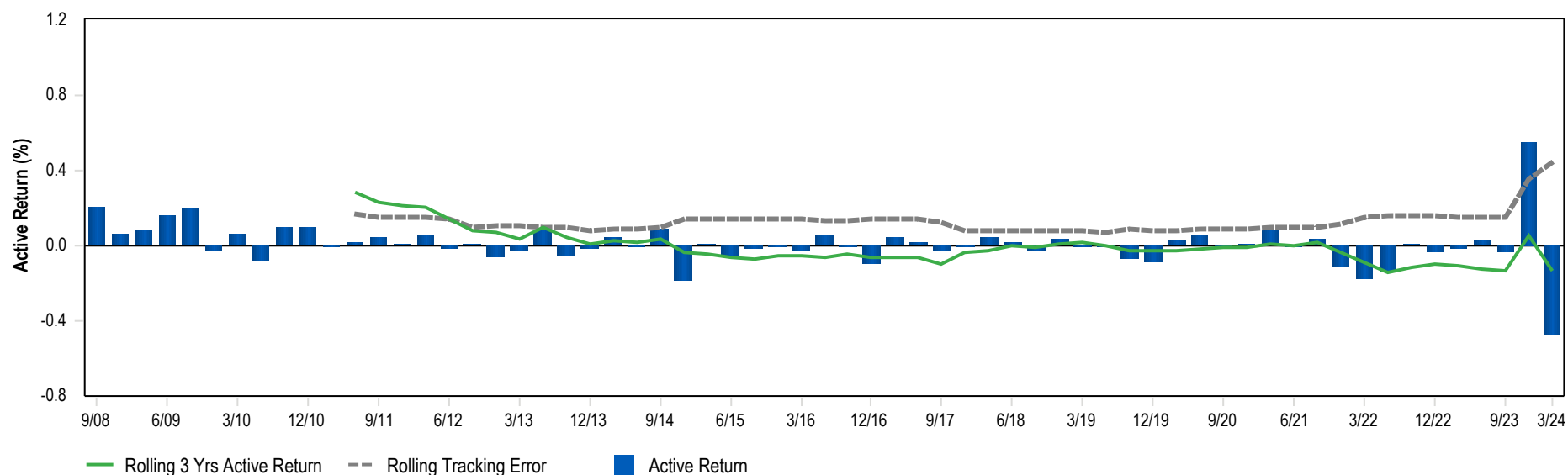
Gain/Loss includes income received and change in accrued income for the period.

Vanguard Total Stock Market Index Fund

Gain / Loss

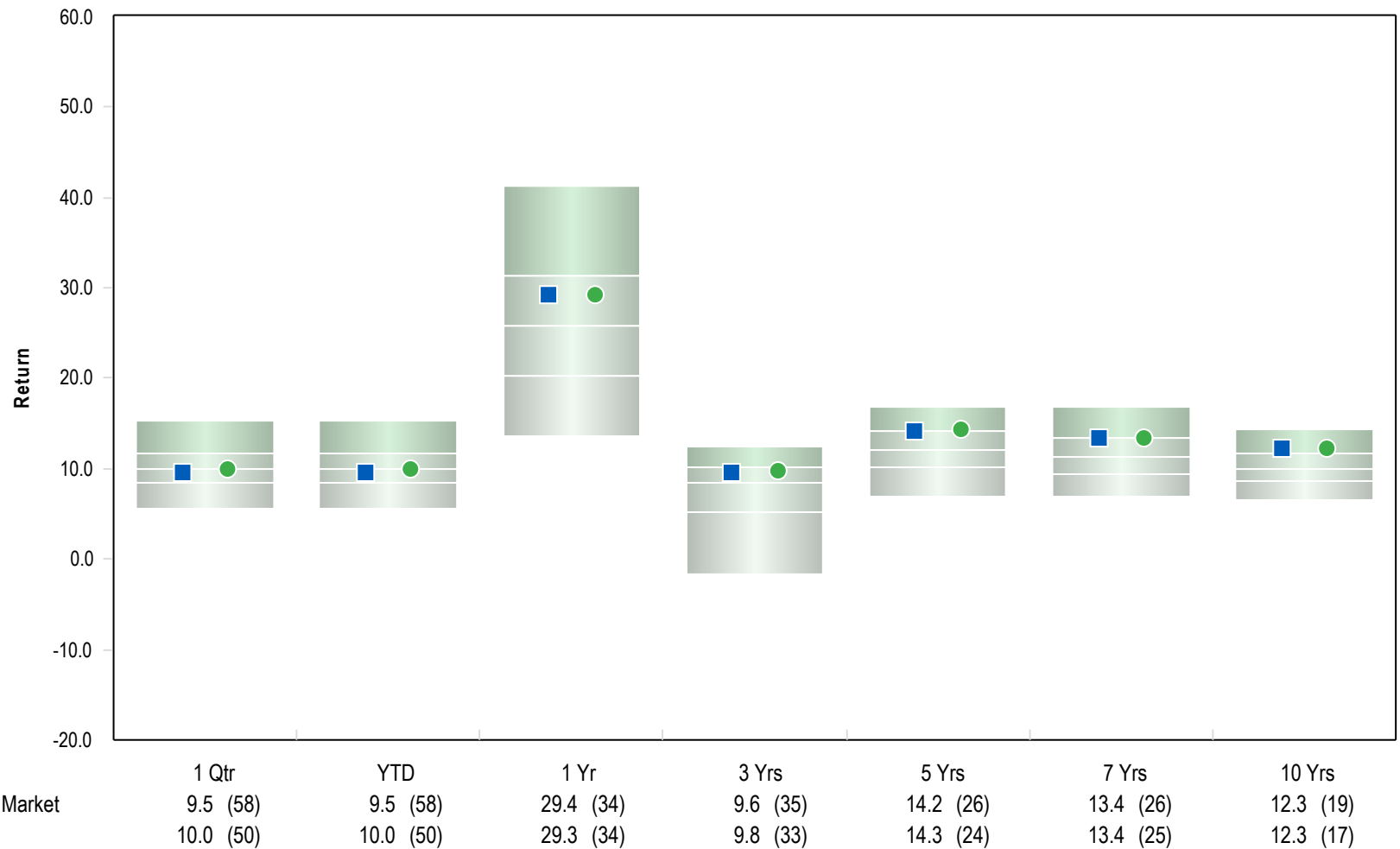
	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs
Vanguard Total Stock Market					
Beginning Market Value	2,239,585	2,239,585	1,896,733	2,280,405	1,543,993
Net Cash Flows				-458,894	-458,894
Income				41,896	125,484
Gain/Loss	213,838	213,838	556,689	590,017	1,242,840
Ending Market Value	2,453,423	2,453,423	2,453,423	2,453,423	2,453,423

Rolling Return and Tracking Error



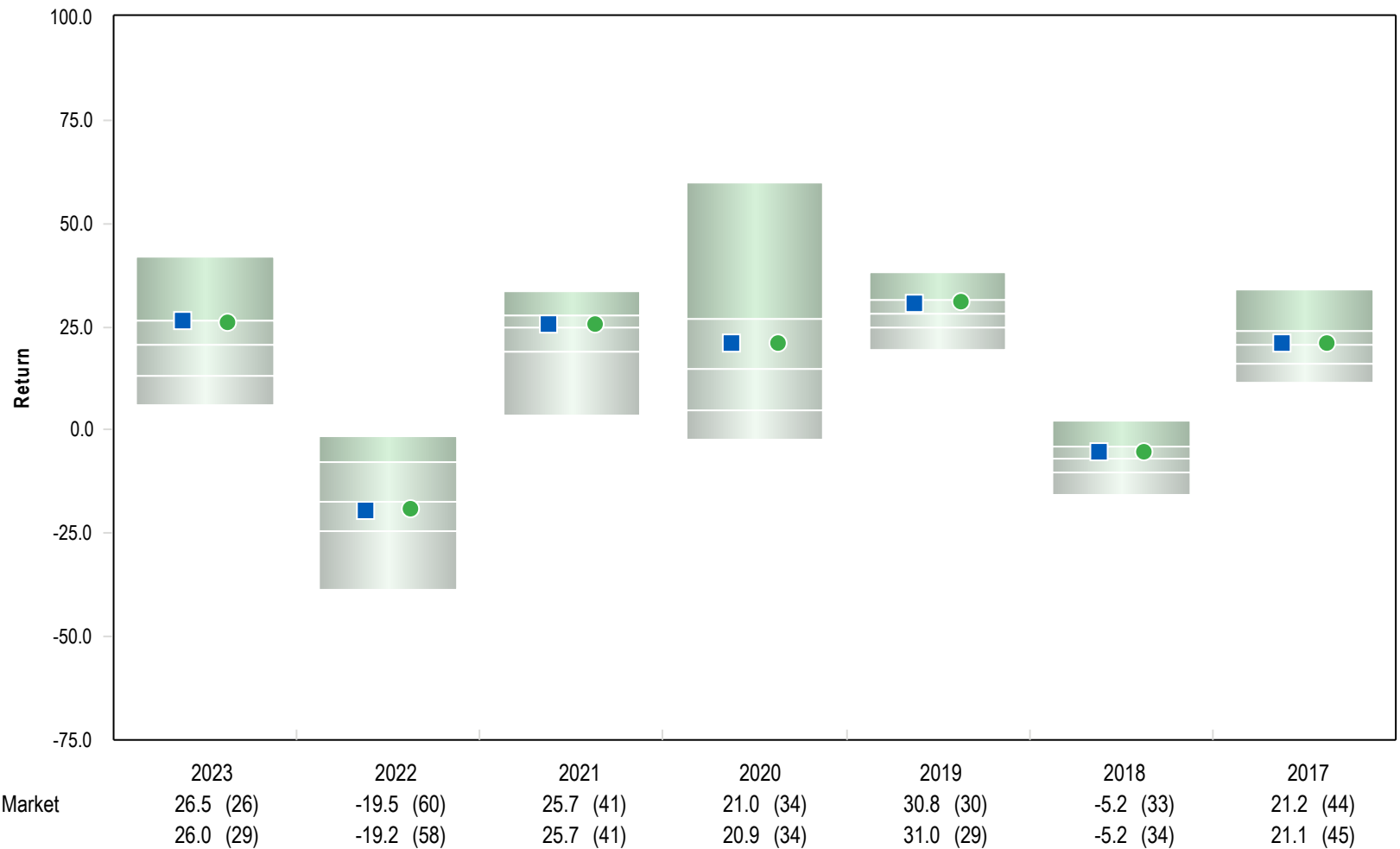
Performance

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
Vanguard Total Stock Market	9.5	9.5	29.4	9.6	14.2	13.4	12.3
Russell 3000 Index	10.0	10.0	29.3	9.8	14.3	13.4	12.3
Difference	-0.5	-0.5	0.1	-0.2	-0.1	0.0	0.0



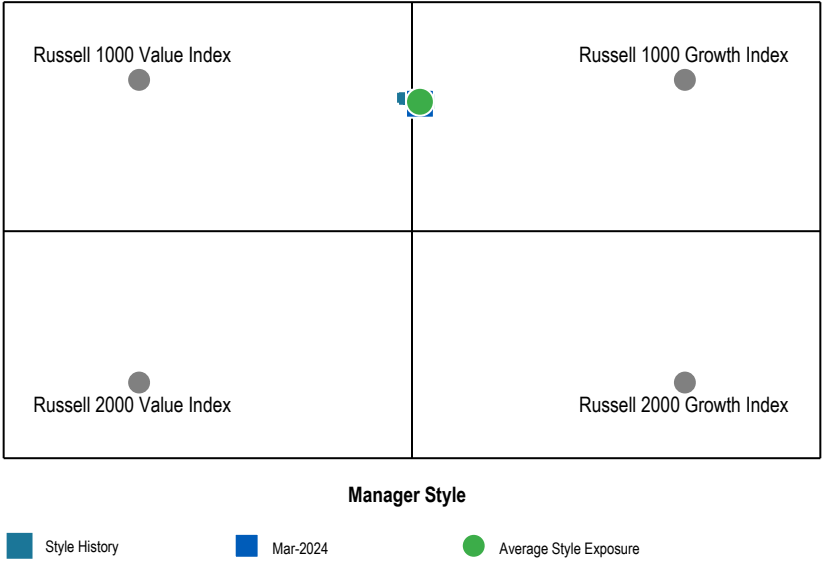
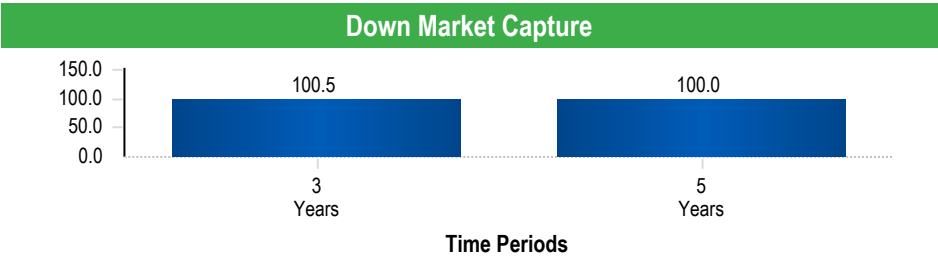
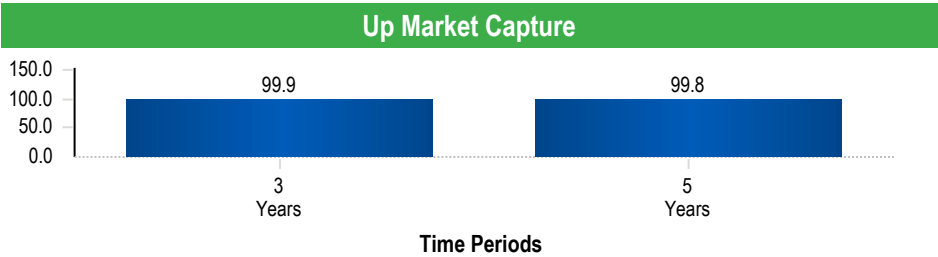
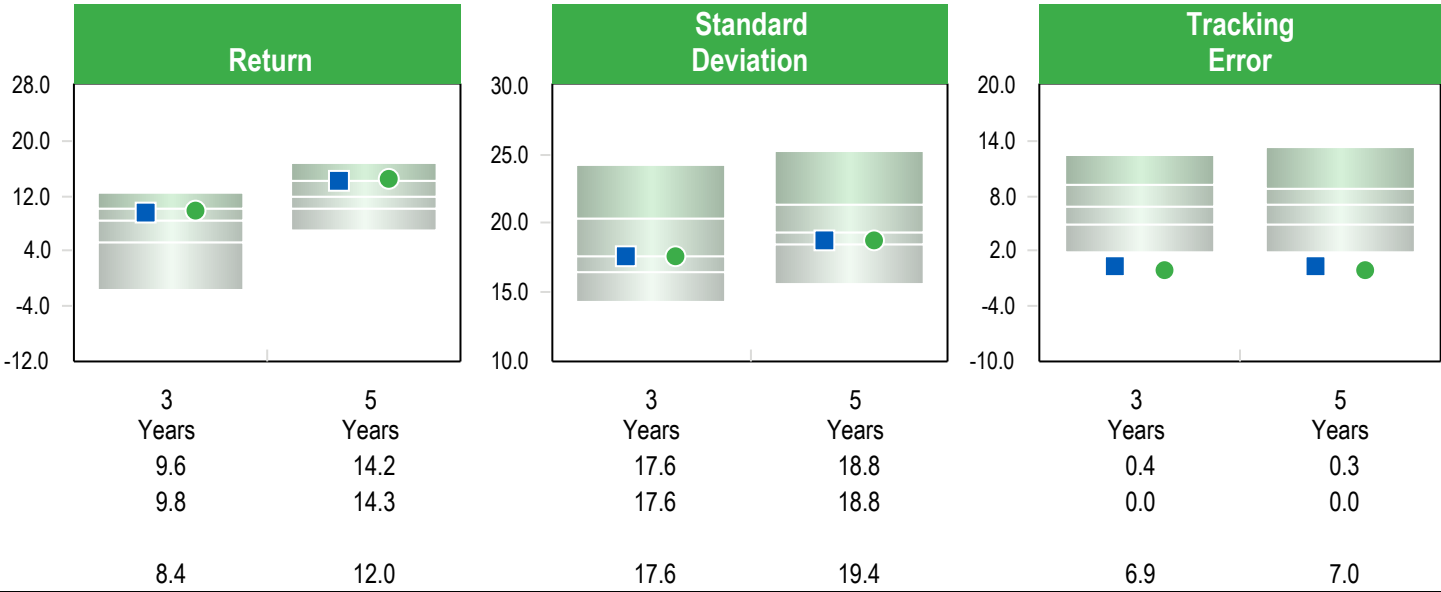
5th Percentile	15.4	15.4	41.3	12.4	16.9	16.8	14.3
1st Quartile	11.7	11.7	31.3	10.2	14.2	13.4	11.8
Median	10.0	10.0	25.9	8.4	12.0	11.3	10.0
3rd Quartile	8.4	8.4	20.4	5.2	10.2	9.4	8.5
95th Percentile	5.6	5.6	13.7	-1.7	6.9	6.8	6.5

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



5th Percentile	42.0	-1.3	33.5	60.1	38.2	2.3	34.0
1st Quartile	26.7	-7.9	27.8	26.8	31.6	-4.0	24.2
Median	20.5	-17.4	24.7	14.7	28.2	-7.1	20.5
3rd Quartile	13.1	-24.6	18.9	4.9	24.7	-10.1	16.1
95th Percentile	6.0	-38.7	3.3	-2.5	19.3	-15.9	11.5

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



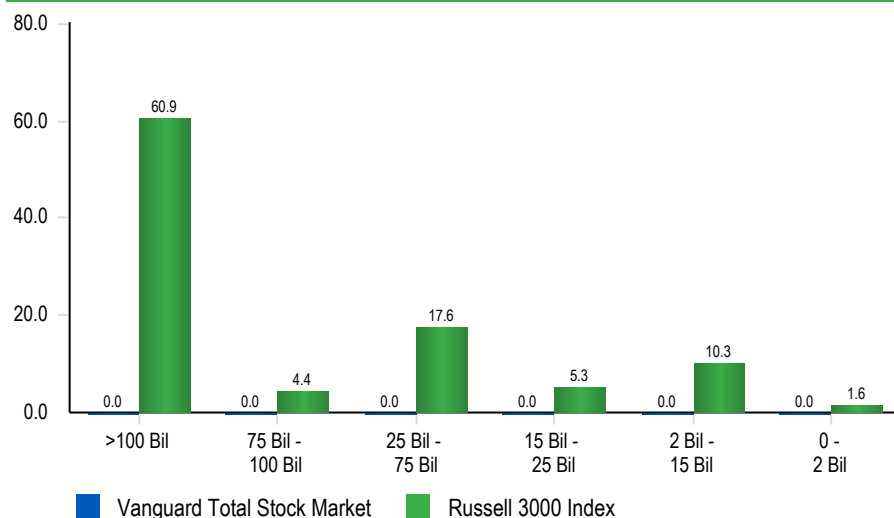
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Microsoft Corp	0.0	6.2	0.0	
Apple Inc	0.0	4.9	0.0	
NVIDIA Corporation	0.0	4.2	0.0	
Amazon.com Inc	0.0	3.2	0.0	
Meta Platforms Inc	0.0	2.1	0.0	
Google Inc [A]	0.0	1.8	0.0	
Berkshire Hathaway Inc	0.0	1.5	0.0	
Alphabet Inc	0.0	1.5	0.0	
Eli Lilly and Co	0.0	1.3	0.0	
JPMorgan Chase & Co	0.0	1.1	0.0	
% of Portfolio	0.0	27.8	-27.8	

Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)		689,318,302,462
Median Mkt. Cap (\$)		2,222,173,360
Price/Earnings ratio		24.8
Price/Book ratio		4.4
5 Yr. EPS Growth Rate (%)		15.1
Current Yield (%)		1.4
Beta (5 Years, Monthly)	1.0	1.0
Number of Stocks	0	2,949

Distribution of Market Capitalization (%)



Sector Weights (%)

No data found.

Ten Best Performers

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Microsoft Corp	0.0	6.2	0.0	
Apple Inc	0.0	4.9	0.0	
NVIDIA Corporation	0.0	4.2	0.0	
Amazon.com Inc	0.0	3.2	0.0	
Meta Platforms Inc	0.0	2.1	0.0	
Google Inc [A]	0.0	1.8	0.0	
Berkshire Hathaway Inc	0.0	1.5	0.0	
Alphabet Inc	0.0	1.5	0.0	
Eli Lilly and Co	0.0	1.3	0.0	
JPMorgan Chase & Co	0.0	1.1	0.0	
% of Portfolio	0.0	27.8	-27.8	

Ten Worst Performers

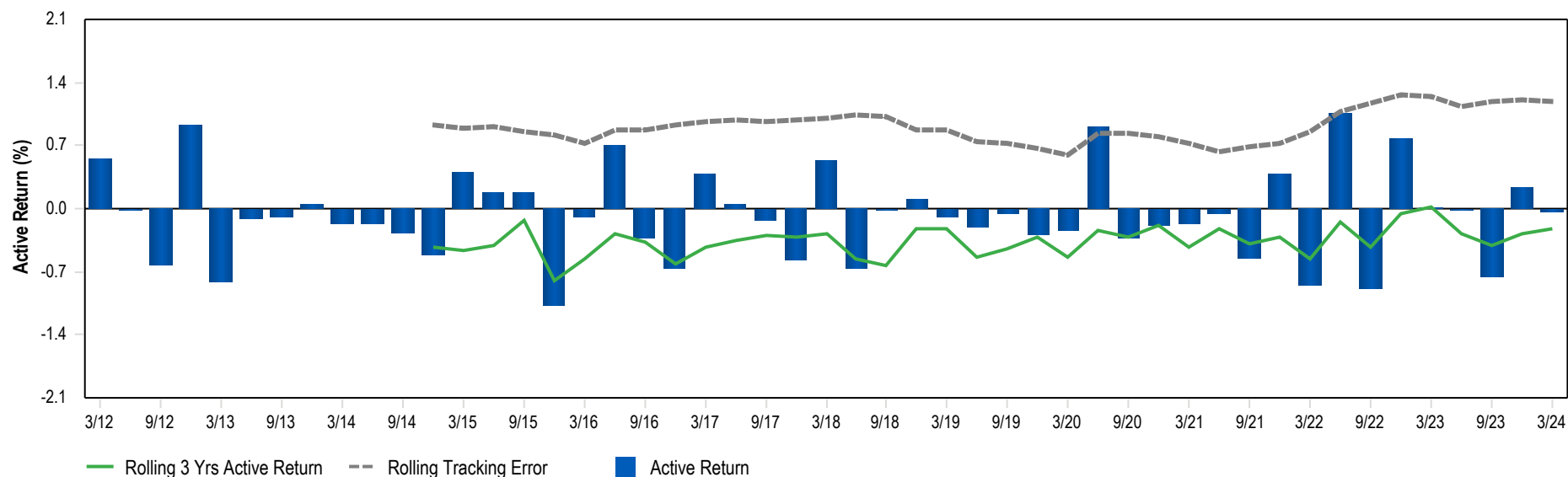
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Microsoft Corp	0.0	6.2	0.0	
Apple Inc	0.0	4.9	0.0	
NVIDIA Corporation	0.0	4.2	0.0	
Amazon.com Inc	0.0	3.2	0.0	
Meta Platforms Inc	0.0	2.1	0.0	
Google Inc [A]	0.0	1.8	0.0	
Berkshire Hathaway Inc	0.0	1.5	0.0	
Alphabet Inc	0.0	1.5	0.0	
Eli Lilly and Co	0.0	1.3	0.0	
JPMorgan Chase & Co	0.0	1.1	0.0	
% of Portfolio	0.0	27.8	-27.8	

Vanguard Total Developed Markets Index Fund

Gain / Loss

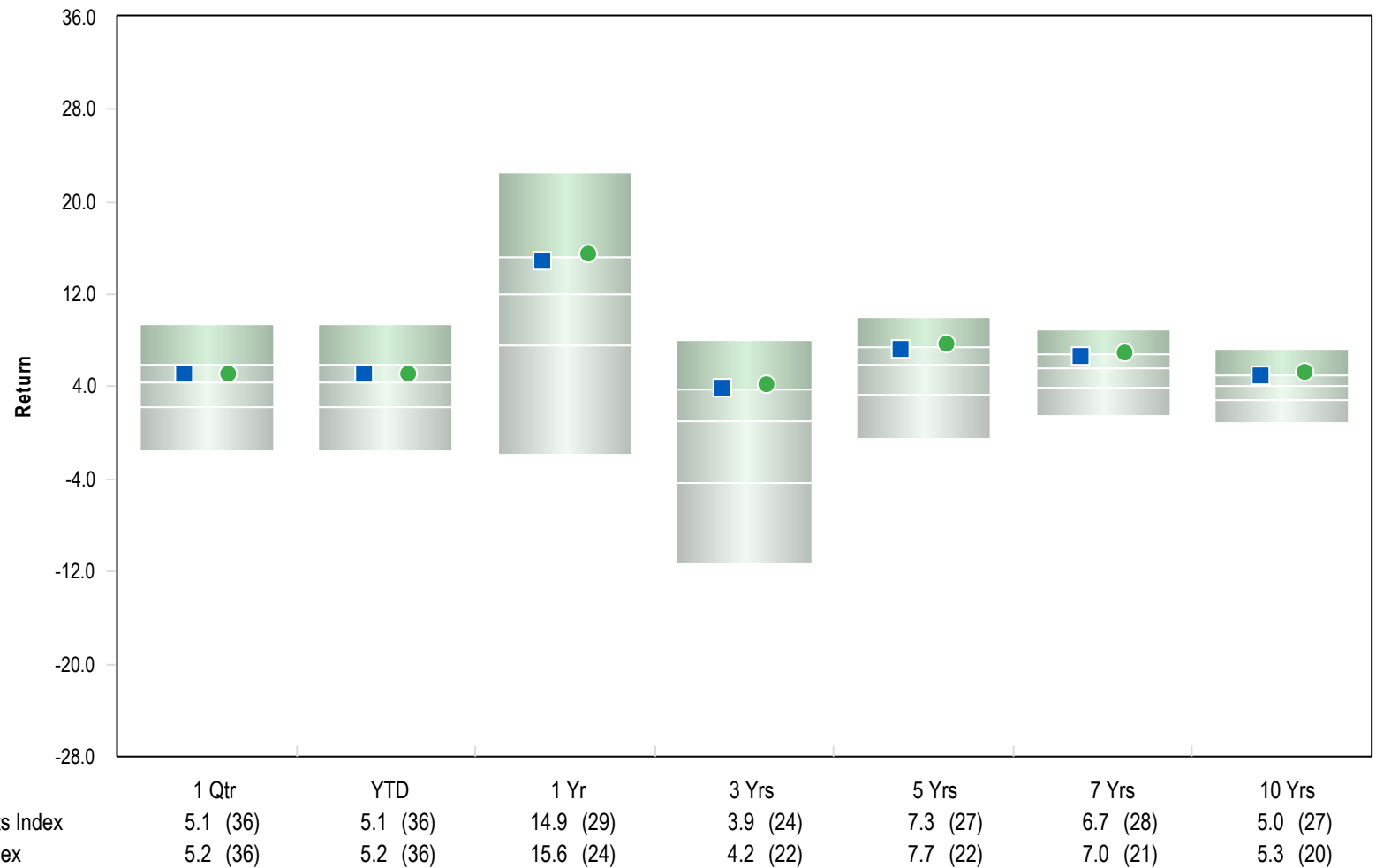
	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs
Vanguard Developed Markets Index					
Beginning Market Value	589,555	589,555	539,676	551,986	434,999
Net Cash Flows					
Income			10,667	36,565	71,179
Gain/Loss	30,344	30,344	69,557	31,348	113,722
Ending Market Value	619,899	619,899	619,899	619,899	619,899

Rolling Return and Tracking Error



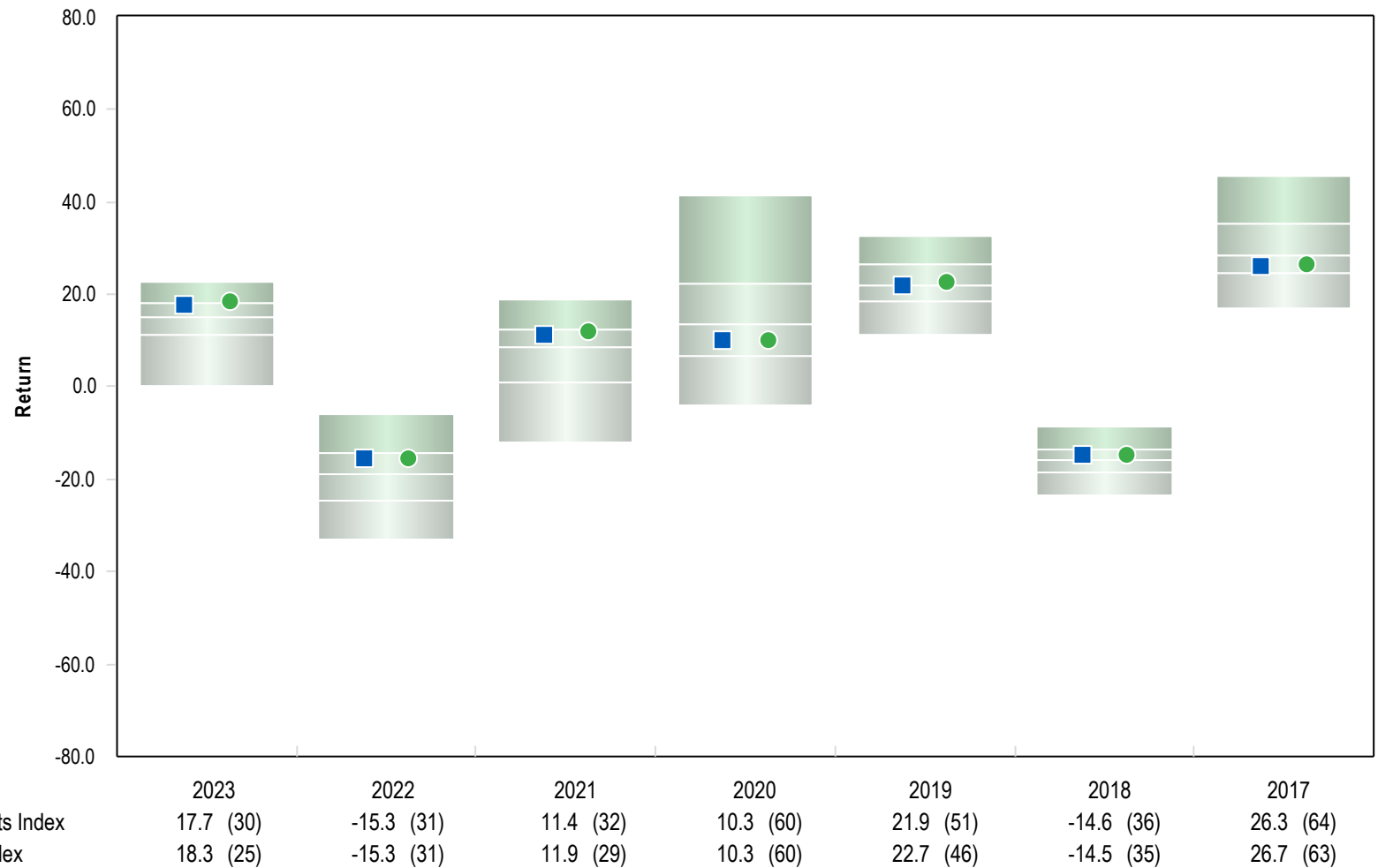
Performance

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
Vanguard Developed Markets Index	5.1	5.1	14.9	3.9	7.3	6.7	5.0
Developed Market Policy Index	5.2	5.2	15.6	4.2	7.7	7.0	5.3
Difference	-0.1	-0.1	-0.7	-0.3	-0.4	-0.3	-0.3



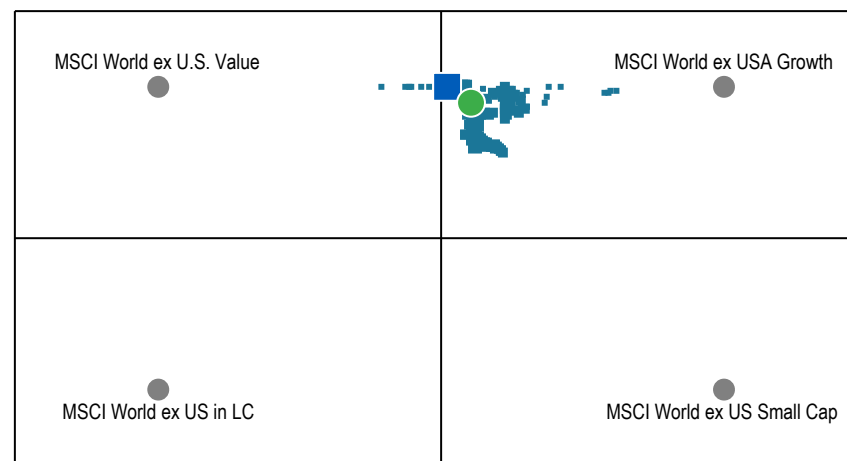
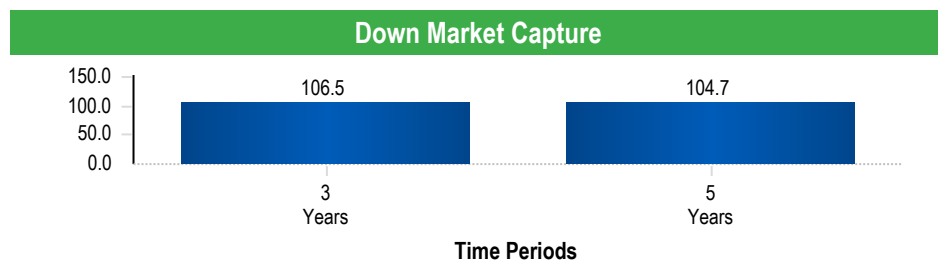
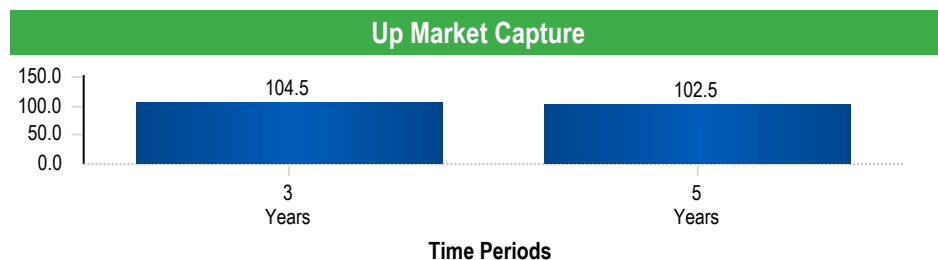
5th Percentile	9.4	9.4	22.6	8.1	10.0	9.0	7.3
1st Quartile	5.9	5.9	15.3	3.8	7.4	6.8	5.0
Median	4.4	4.4	12.0	1.0	5.9	5.7	4.1
3rd Quartile	2.3	2.3	7.6	-4.3	3.3	4.0	2.9
95th Percentile	-1.5	-1.5	-1.9	-11.4	-0.4	1.4	0.8

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



5th Percentile	22.8	-6.1	18.7	41.5	32.8	-8.8	45.6
1st Quartile	18.2	-14.3	12.4	22.3	26.5	-13.4	35.3
Median	15.2	-19.0	8.5	13.7	22.1	-16.0	28.6
3rd Quartile	11.2	-24.7	0.8	6.6	18.4	-18.6	24.7
95th Percentile	0.1	-33.0	-11.9	-3.8	11.2	-23.3	17.0

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



Style History Mar-2024 Average Style Exposure

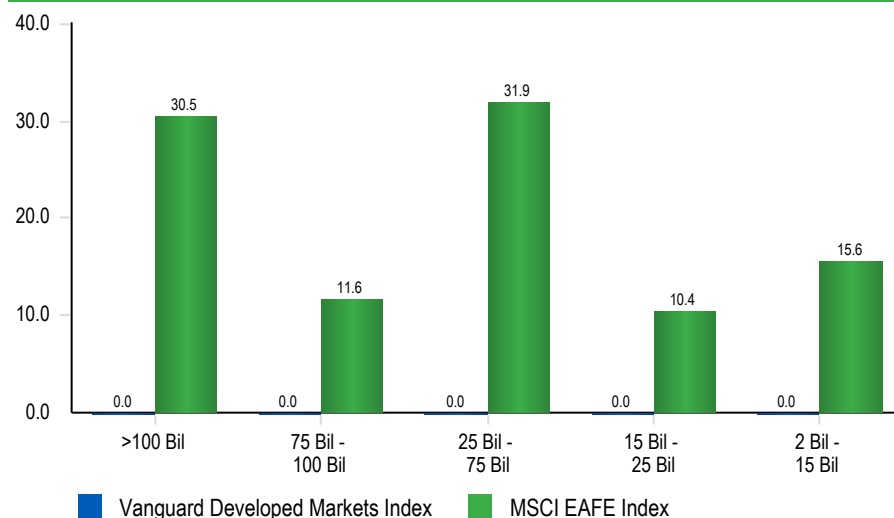
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Novo Nordisk A/S	0.0	2.5	0.0	
ASML Holding NV	0.0	2.3	0.0	
Nestle SA, Cham Und Vevey	0.0	1.7	0.0	
Toyota Motor Corp	0.0	1.6	0.0	
LVMH Moet Hennessy Louis Vuitton SE	0.0	1.5	0.0	
Shell Plc	0.0	1.3	0.0	
Astrazeneca PLC	0.0	1.2	0.0	
SAP AG Systeme Anwendungen	0.0	1.2	0.0	
Novartis AG	0.0	1.2	0.0	
Roche Holding AG	0.0	1.1	0.0	
% of Portfolio	0.0	15.6	-15.6	

Sector Weights (%)

No data found.

Distribution of Market Capitalization (%)



Region

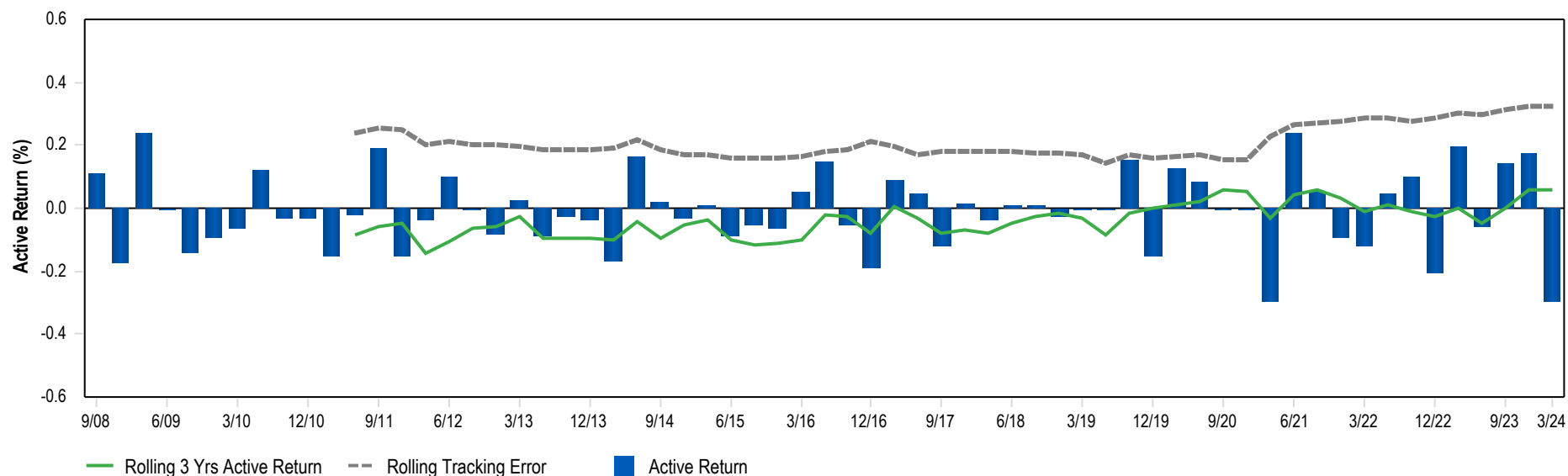
No data found.

Vanguard Total Bond Market Index Fund

Gain / Loss

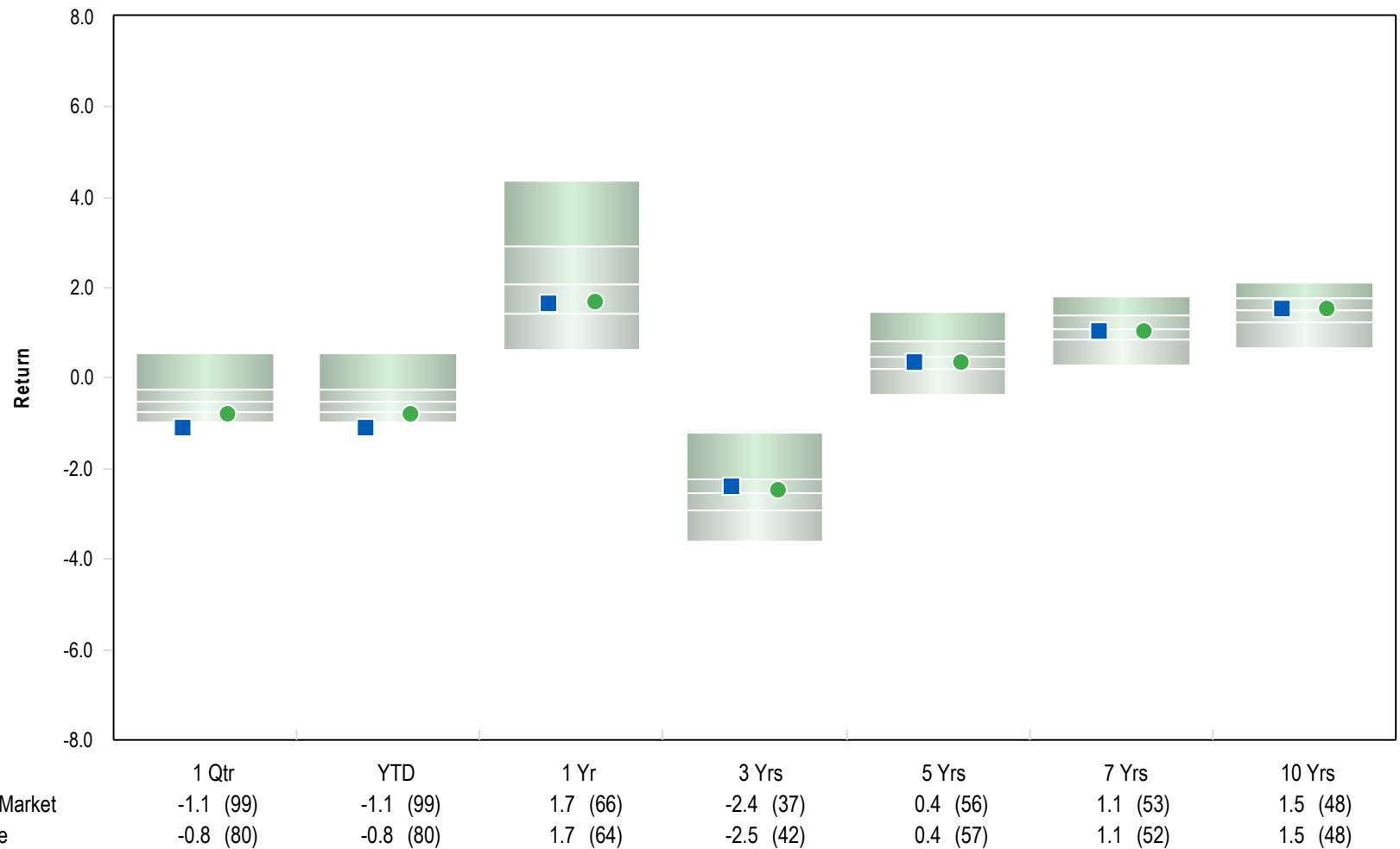
	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs
Vanguard Total Bond Market					
Beginning Market Value	1,593,113	1,593,113	1,550,367	1,247,826	1,138,756
Net Cash Flows				459,360	459,360
Income	176	176	23,688	93,633	181,453
Gain/Loss	-17,294	-17,294	1,940	-224,825	-203,574
Ending Market Value	1,575,995	1,575,995	1,575,995	1,575,995	1,575,995

Rolling Return and Tracking Error



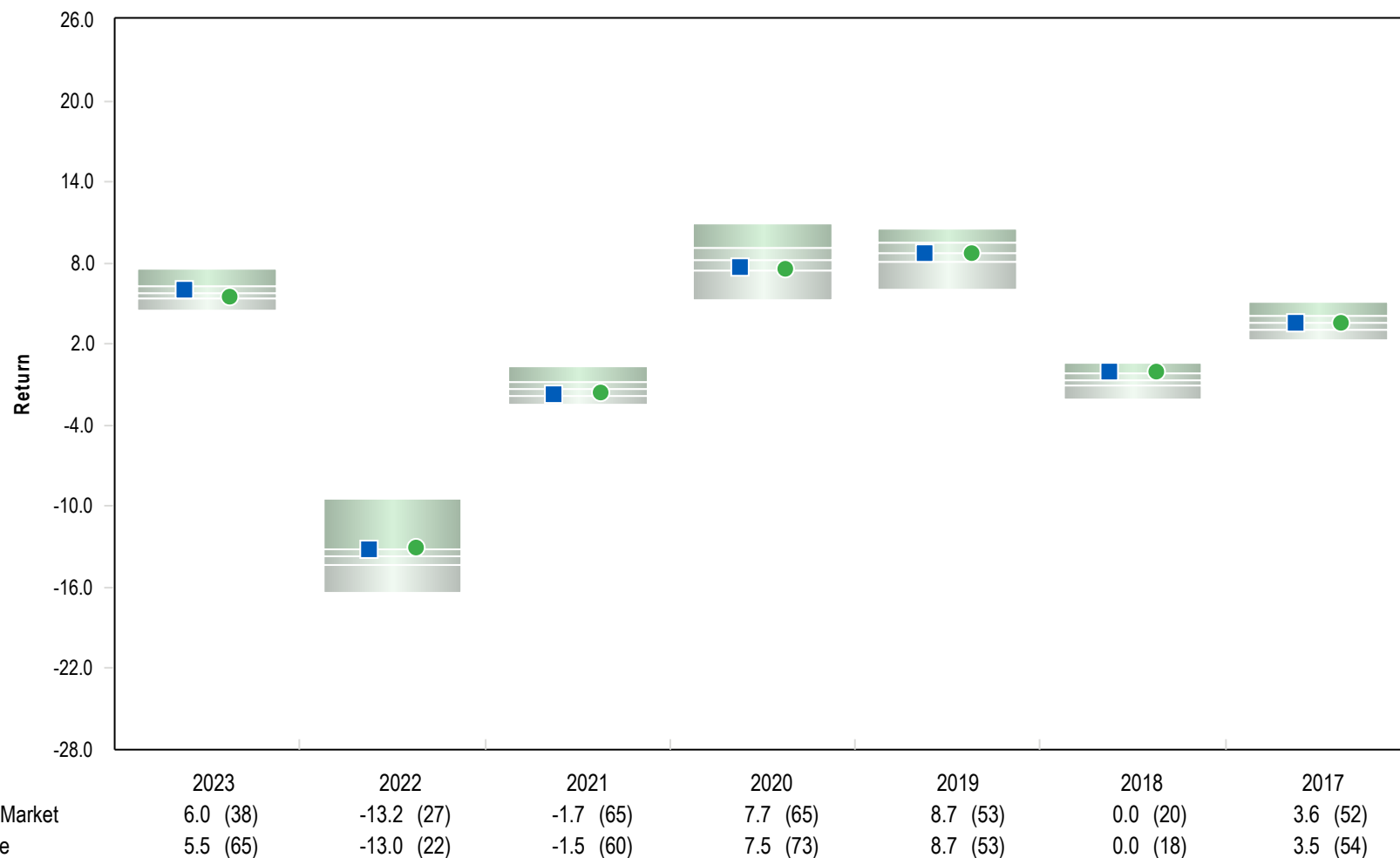
Performance

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
Vanguard Total Bond Market	-1.1	-1.1	1.7	-2.4	0.4	1.1	1.5
Bloomberg U.S. Aggregate	-0.8	-0.8	1.7	-2.5	0.4	1.1	1.5
Difference	-0.3	-0.3	0.0	0.1	0.0	0.0	0.0



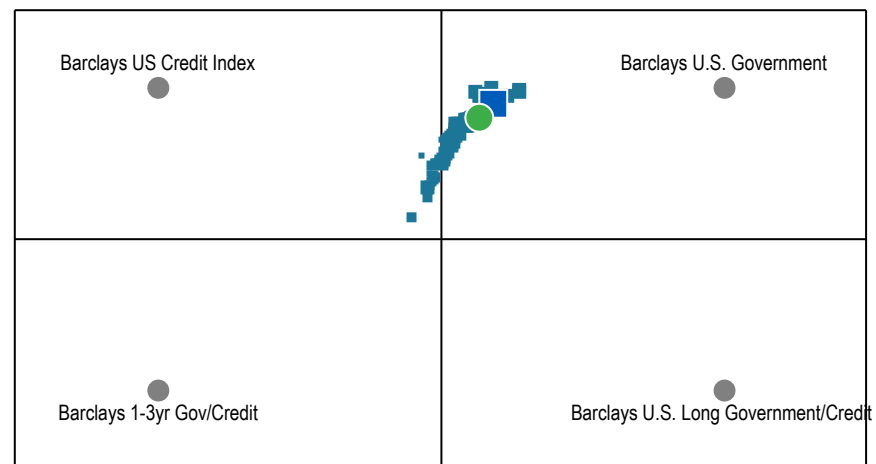
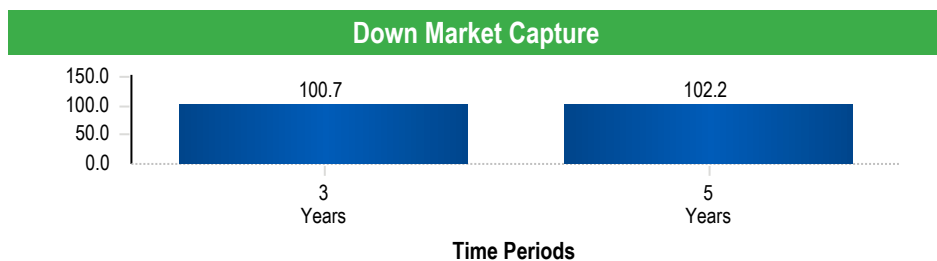
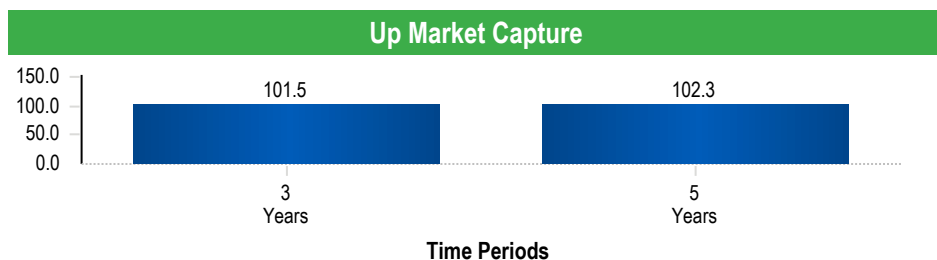
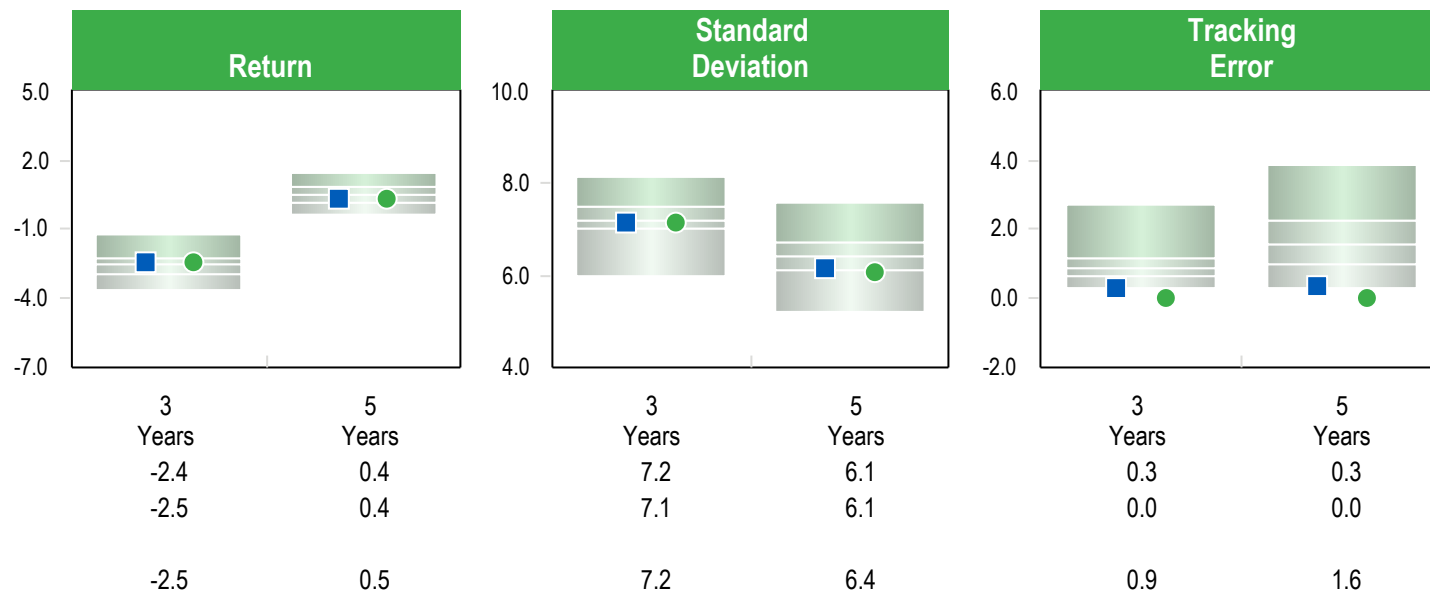
5th Percentile	0.5	0.5	4.4	-1.2	1.5	1.8	2.1
1st Quartile	-0.2	-0.2	2.9	-2.2	0.8	1.4	1.8
Median	-0.5	-0.5	2.1	-2.5	0.5	1.1	1.5
3rd Quartile	-0.7	-0.7	1.4	-2.9	0.2	0.8	1.2
95th Percentile	-1.0	-1.0	0.6	-3.6	-0.3	0.3	0.7

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



5th Percentile	7.5	-9.5	0.3	11.0	10.6	0.6	5.1
1st Quartile	6.3	-13.1	-0.8	9.1	9.5	-0.1	4.2
Median	5.8	-13.7	-1.3	8.2	8.8	-0.6	3.6
3rd Quartile	5.3	-14.3	-1.8	7.5	8.1	-1.1	3.1
95th Percentile	4.4	-16.4	-2.5	5.2	6.0	-2.1	2.2

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



Style History Mar-2024 Average Style Exposure

Appendix

**City of Memphis OPEB
Manager Roster
March 31, 2024**

Manager	Date	Assets Under Management	Assignment	Benchmark	Stated Style	Fee Structure	Annual Dollar Fee	Average Fee
Vanguard Total Stock Market Index	3/31/2024	\$2,453,423	Equity Only	Russell 3000 Index	All Cap Equity	4 bps on all assets	\$981	0.04%
Vanguard Developed Market Index	3/31/2024	\$619,899	Equity Only	FTSE Developed x North America	International Equity	16 bps on all assets	\$992	0.16%
Vanguard Total Bond Market Index	3/31/2024	\$1,575,995	Fixed Income	Barclays U.S. Aggregate	Core Fixed Income	3.5 bps on all assets	\$552	0.035%
Fidelity Money Market	3/31/2024	\$159	Cash	90 Day U.S. Treasury Bill	Cash	33 bps on all assets	\$1	0.33%
OPEB Total		\$4,649,476					\$2,525	0.05%