



## City of Fort Lauderdale OPEB



### Investment Performance Review For the Quarter Ended June 30, 2019

#### Investment Advisors

Steven Alexander, CTP, CGFO, CPPT, Managing Director  
Khalid Yasin, CIMA®, CHP, Director  
Richard Pengelly, CFA, CTP, Director  
Jason Human, Client Manager  
Sean Gannon, CTP, Senior Analyst

#### PFM Asset Management LLC

213 Market Street  
Harrisburg, PA 17101  
717.232.2723  
717.233.6073 fax

300 South Orange Avenue  
Suite 1170  
Orlando, FL 32801  
407.648.2208  
407.648.1323 fax

# Table of Contents

---

Executive Summary

Financial Markets Review

Plan Performance Review



## Executive Summary

---

The City of Ft. Lauderdale (the “City”) portfolio returned 2.67% (net of mutual fund fees) in the 2<sup>nd</sup> quarter of 2019, underperforming its policy benchmark return of 3.79% by 1.12%. Fiscal Year-to-date, the portfolio returned 10.98%, underperforming its 13.12% benchmark return by 2.14%. In dollar terms, the portfolio gained \$719,689 in return on investment over the quarter and \$2,715,942 fiscal year-to-date.

The S&P 500 Index posted a return of 4.30% for the quarter, in a quarter marked by an intra-quarter drawdown of 6.62%. The markets reacted negatively in May to concerns of slowing growth coupled with an increase in rhetoric around trade talks. The Fed’s dovish stance has led market participants to expect three rate cuts this year, and progress on U.S.-China trade talks at the G-20 summit in Japan led to a strong return of 7.05% in June. Markets outside of the United States, as measured by the MSCI ACWI ex U.S. Index, lagged their domestic equity counterparts and returned 2.98% for the second quarter. Emerging markets (EM), as represented by MSCI Emerging Market Index, lagged behind developed markets for the quarter, returning 0.61%. Emerging Market EMEA (Europe, Middle East and Africa) led the way with a return of 7.15%, while EM Asia performed the worst, returning -1.25%.

The portfolio continues to be compliant with the City’s investment policy, and is expected to help achieve the City’s long-term goals and objectives.



# Executive Summary

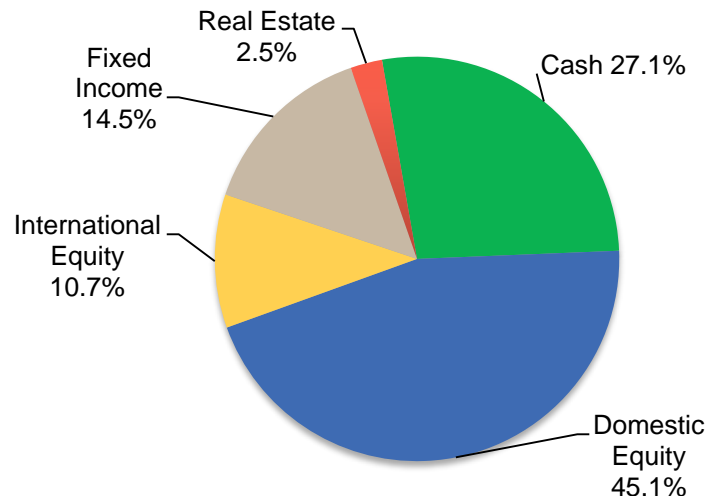
## Current Asset Allocation

Asset Class	Market Value	Pct (%)
Cash	\$7,418,723	27.1%
Domestic Equity	12,339,932	45.1%
International Equity	2,919,925	10.7%
Fixed Income	3,970,355	14.5%
Real Estate	693,245	2.5%
<b>Total</b>	<b>\$27,342,180</b>	<b>100.0%</b>

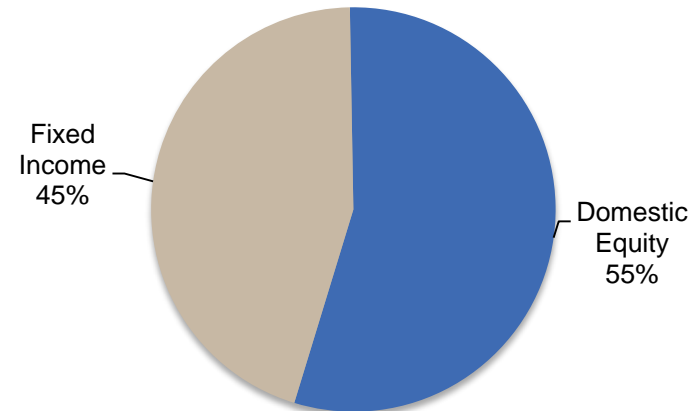
## Target Asset Allocation

Asset Class	Market Value	Pct (%)
Cash	\$0	0%
Domestic Equity	15,038,199	55%
International Equity	-	0%
Fixed Income	12,303,981	45%
Alternative Investments	-	0%
<b>Total</b>	<b>\$27,342,180</b>	<b>100%</b>

## Current Asset Allocation



## Target Asset Allocation



## **Markets & Economy**



## QUARTERLY MARKET SUMMARY

## Market Index Performance

As of June 30, 2019

	QTD	YTD	1 Year	3 Years	5 Years	7 Years	10 Years
<b>DOMESTIC EQUITY</b>							
S&P 500	4.30%	18.54%	10.42%	14.19%	10.71%	13.98%	14.70%
Russell 3000 Index	4.10%	18.71%	8.98%	14.02%	10.19%	13.79%	14.67%
Russell 1000 Value Index	3.84%	16.24%	8.46%	10.19%	7.46%	12.09%	13.19%
Russell 1000 Growth Index	4.64%	21.49%	11.56%	18.07%	13.39%	15.76%	16.28%
Russell Midcap Index	4.13%	21.35%	7.83%	12.16%	8.63%	13.37%	15.16%
Russell 2500 Index	2.96%	19.25%	1.77%	12.34%	7.66%	12.51%	14.44%
Russell 2000 Value Index	1.38%	13.47%	-6.24%	9.81%	5.39%	10.31%	12.40%
Russell 2000 Index	2.10%	16.98%	-3.31%	12.30%	7.06%	11.63%	13.45%
Russell 2000 Growth Index	2.75%	20.36%	-0.49%	14.69%	8.63%	12.87%	14.41%
<b>INTERNATIONAL EQUITY</b>							
MSCI EAFE (Net)	3.68%	14.03%	1.08%	9.11%	2.25%	7.31%	6.90%
MSCI AC World Index (Net)	3.61%	16.23%	5.74%	11.62%	6.16%	9.87%	10.15%
MSCI AC World ex USA (Net)	2.98%	13.60%	1.29%	9.39%	2.16%	6.36%	6.54%
MSCI AC World ex USA Small Cap (Net)	1.21%	11.60%	-5.94%	7.76%	2.77%	7.66%	8.48%
MSCI EM (Net)	0.61%	10.59%	1.21%	10.66%	2.49%	4.15%	5.81%
<b>ALTERNATIVES</b>							
FTSE NAREIT Equity REIT Index	1.24%	17.78%	11.21%	4.20%	7.92%	8.88%	15.46%
FTSE EPRA/NAREIT Developed Index	0.20%	15.09%	8.64%	5.45%	5.79%	8.16%	11.45%
Bloomberg Commodity Index Total Return	-1.19%	5.06%	-6.75%	-2.18%	-9.15%	-6.69%	-3.74%
<b>FIXED INCOME</b>							
Blmbg. Barc. U.S. Aggregate	3.08%	6.11%	7.87%	2.31%	2.95%	2.62%	3.90%
Blmbg. Barc. U.S. Government/Credit	3.53%	6.90%	8.52%	2.41%	3.11%	2.73%	4.09%
Blmbg. Barc. Intermed. U.S. Government/Credit	2.59%	4.97%	6.93%	1.99%	2.39%	2.15%	3.24%
Blmbg. Barc. U.S. Treasury: 1-3 Year	1.47%	2.47%	4.02%	1.29%	1.22%	1.02%	1.20%
Blmbg. Barc. U.S. Corp: High Yield	2.50%	9.94%	7.48%	7.52%	4.70%	6.35%	9.24%
Credit Suisse Leveraged Loan index	1.58%	5.42%	4.15%	5.43%	3.85%	4.71%	6.29%
ICE BofAML Global High Yield Constrained (USD)	2.87%	9.57%	7.52%	7.25%	3.91%	6.27%	9.03%
Blmbg. Barc. Global Aggregate Ex USD	3.42%	4.99%	4.10%	0.97%	-0.12%	0.71%	2.10%
JPM EMBI Global Diversified	4.08%	11.31%	12.45%	5.47%	5.30%	5.57%	7.79%
<b>CASH EQUIVALENT</b>							
90 Day U.S. Treasury Bill	0.64%	1.24%	2.31%	1.37%	0.85%	0.63%	0.47%

Source: Investment Metrics. Returns are expressed as percentages. Please refer to the last page of this document for important disclosures relating to this material.

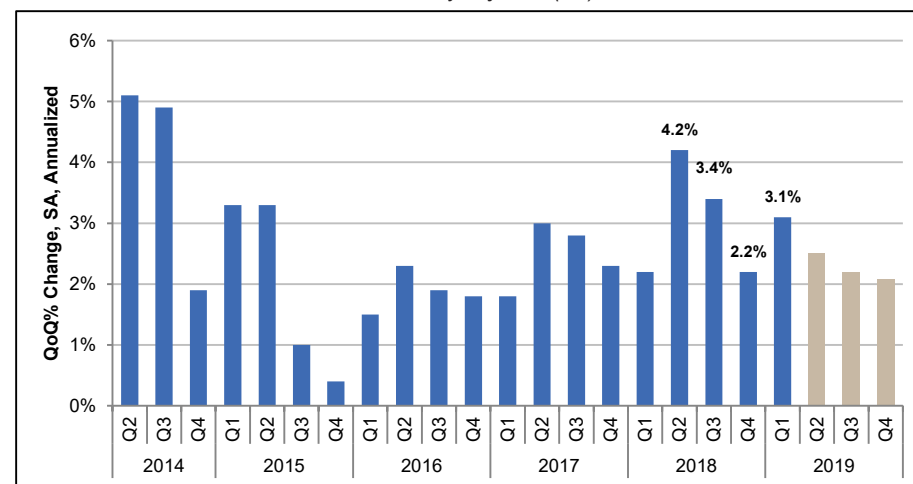


## THE ECONOMY

- In line with slowing growth expectations, U.S. Gross Domestic Product (GDP) for the second quarter of 2019 is projected to grow at an annual rate of 1.5% according to the Federal Reserve Bank of Atlanta GDPNow Forecast. This is down from 3.1% in the first quarter of 2019. The International Monetary Fund (IMF) also recently cut its global growth forecasts to 3.3% from 3.5% for 2019.
- While the June unemployment rate ticked up slightly to 3.7%, labor markets still continue to be strong. The U.S. labor market added an average of 170,000 jobs per month in the second quarter, down slightly from 180,000 a month in the first quarter of 2019. Average hourly earnings rose 3.1% in the quarter, nearly matching the 3.2% growth in the first quarter. The labor force participation rate edged up slightly from 62.8% in May to 62.9% in June.
- U.S. manufacturing activity slowed to near a three-year low in June according to the Institute for Supply Management (ISM). The ISM Manufacturing Index dropped to 51.7 from 52.1 in May, a third straight monthly decline largely attributed to uncertainty stemming from trade tensions between the U.S. and China. However, the reading surpassed expectations of 51 for the month of June. A reading of 50 or more indicates expansion in the manufacturing sector. Construction spending also fell unexpectedly as private construction projects declined.
- The core personal consumption expenditures (PCE) price index, the Federal Reserve's (Fed) preferred measure of inflation, rose 1.5% over the 12 months ended in May 2019. Inflation rates have consistently fallen below the Fed's target of 2% and Fed officials have warned that weaker inflation readings could persist, strengthening the case for more accommodative monetary policy.
- Globally, major central banks remain ready to ease monetary policy as risks to global growth, such as trade uncertainty and weakening manufacturing activity, continue to mount. Labor market strength continues in most major economies, with the global unemployment rate near a 40-year low, but manufacturing continues to deteriorate according to the latest purchasing managers' index (PMI) data. Leading economies including the Eurozone, the UK, China and Japan have seen PMIs fall below 50. Readings below 50 indicate a slow-down in manufacturing.

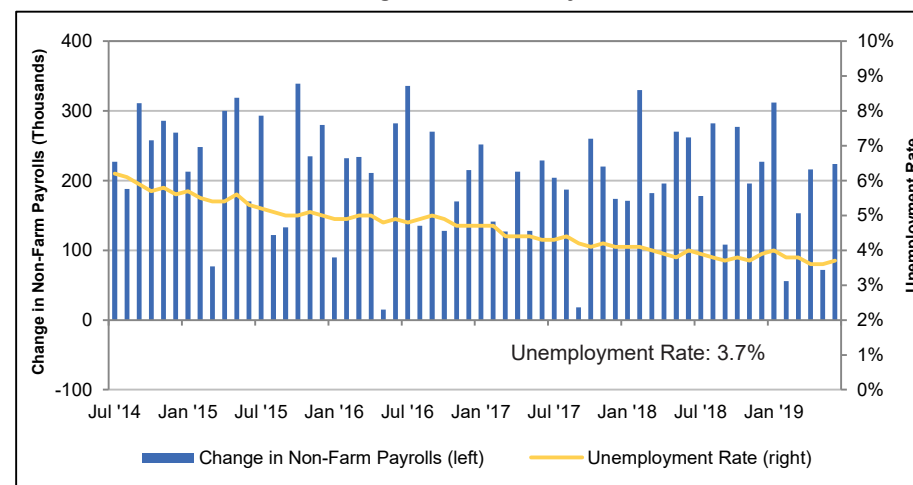
U.S. Real GDP Growth

Seasonally Adjusted (SA)



Source: Bloomberg. Blue bars indicate actual numbers; taupe bars indicate forecasted estimates.

Change in Non-Farm Payrolls



Source: Bloomberg.

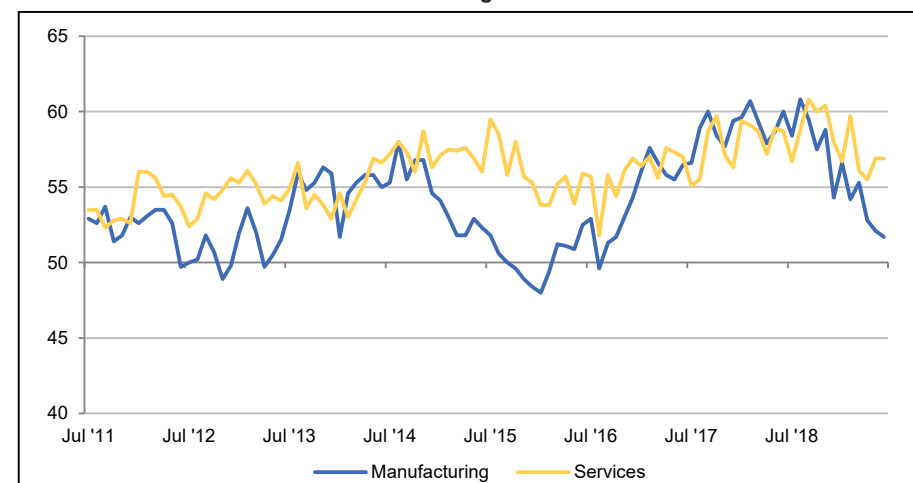


## QUARTERLY MARKET SUMMARY

### WHAT WE'RE WATCHING

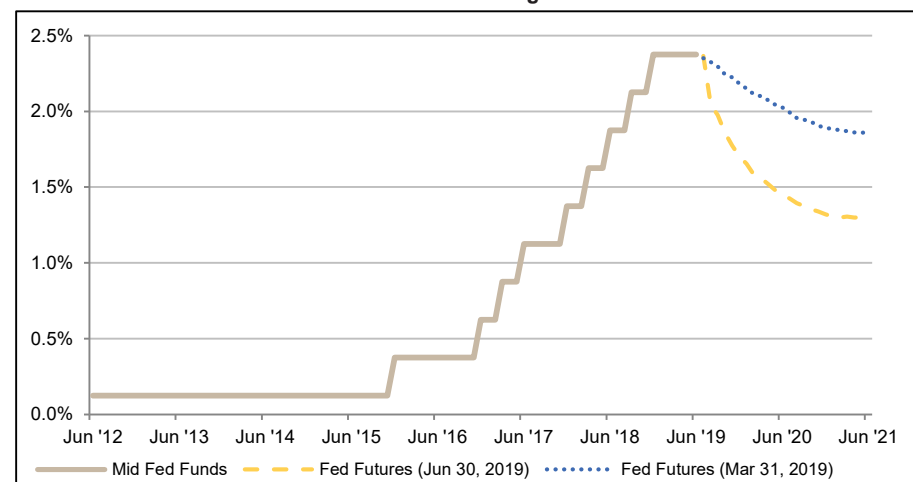
- After the Federal Open Market Committee (FOMC) met in June, Federal Reserve Chairman, Jerome Powell, signaled that the Fed would consider cutting its target interest rate if economic data continued to fall short of expectations. The news sent market indices to all-time highs at the prospect of more accommodative monetary policy. A strong June jobs report posed a threat to easing monetary policy, and turned investors' attention to pending inflation data. However, Chairman Powell's testimony on Capitol Hill in early July again signaled that a rate cut later in the month is possible. The FOMC will meet again from July 30 - July 31.
- Trade tensions between the U.S. and China escalated once again in the second quarter of 2019 after the U.S. ceased negotiations and threatened tariffs on an additional \$300 billion of Chinese goods. Trade talks resumed after President Trump and President Xi met at the G-20 summit in June and called a truce. The two sides did not outline a path forward. The IMF lowered its 2019 growth forecast for China to 6.2% from 6.3% citing significant, but contained, impacts from trade tensions.
- International Monetary Fund Chief, Christine Lagarde, was nominated to lead the European Central Bank (ECB). She would be taking the reins from outgoing ECB president Mario Draghi. Markets are betting that they will see an easing of monetary policy under her leadership over the next eight years, as evidenced by a drop in benchmark yields across the Eurozone.
- Tensions in the Middle East intensified in June leading to oil prices spiking nearly 10%. Attacks on two tankers in the Gulf of Oman and a U.S. drone have led to uncertainty about global oil supply. During the month, the Organization of Petroleum Exporting Countries (OPEC) also agreed to extend production cuts until March 2020, providing another boost to oil prices.

ISM Manufacturing & Services PMI



Source: Bloomberg.

Federal Funds Target Rate



Source: Bloomberg.





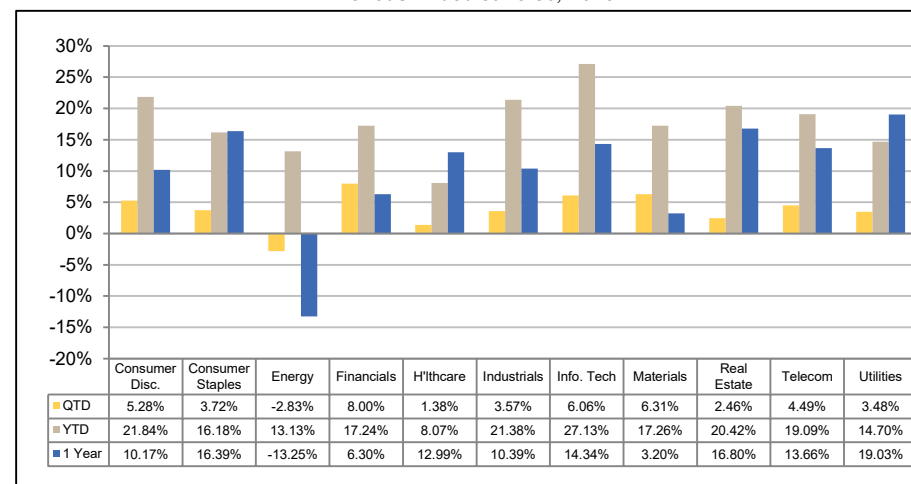
## QUARTERLY MARKET SUMMARY

## DOMESTIC EQUITY

- The S&P 500 Index posted a return of 4.30% for the quarter, in a quarter marked by an intra-quarter drawdown of 6.62%. The markets reacted negatively in May to concerns of slowing growth coupled with an increase in rhetoric around trade talks. The Fed's dovish stance has led market participants to expect three rate cuts this year, and progress on U.S.-China trade talks at the G-20 summit in Japan led to a strong return of 7.05% in June.
- Within the S&P 500, Financials was the best performing sector, returning 8.00%, followed by Materials and Information Technology at 6.31% and 6.06%, respectively. Energy was the worst performing sector, returning -2.83%.
- Value stocks, as represented by the Russell 1000 Value Index, returned 3.84%, and underperformed growth stocks, as represented by the Russell 1000 Growth Index, which returned 4.64%. Growth outperformed value across all market capitalizations.
- Small-caps, as represented by the Russell 2000 Index, returned 2.10% during the quarter and lagged mid- and large-caps. Large-caps were the best performers for the quarter, returning 4.25%, as represented by Russell 1000 Index, followed by mid-caps which returned 4.13%, as represented by the Russell Mid-Cap Index.
- For the quarter, according to FactSet Earnings Insight (as of July 3, 2019), the expected second quarter earnings growth for the S&P 500 is -2.6%. This marks another quarter of expected decline in earnings growth following the -0.3% decline reported for the first quarter. Looking ahead, analysts expect another quarter of earnings decline in the third quarter followed by mid-single-digit earnings growth expectations in the fourth quarter.

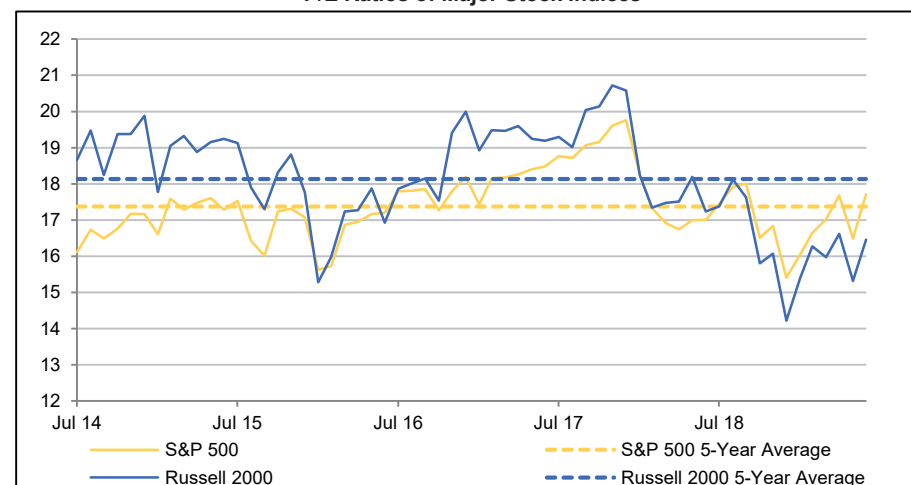
S&amp;P 500 Index Performance by Sector

Periods Ended June 30, 2019



Source: Bloomberg.

P/E Ratios of Major Stock Indices\*



Source: Bloomberg.

\*P/E ratios are calculated based on one-year forward estimates and adjusted to include only positive earnings results for consistency.



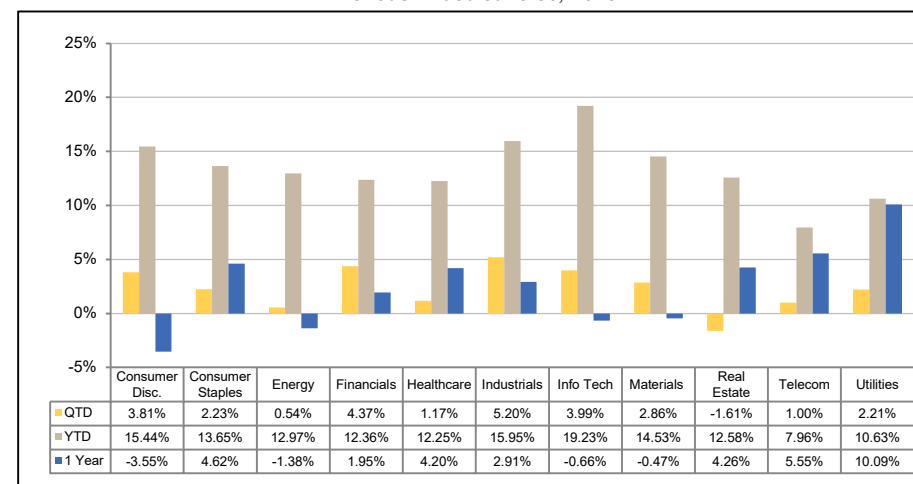
## QUARTERLY MARKET SUMMARY

## NON-U.S. EQUITY

- Markets outside of the United States, as measured by the MSCI ACWI ex U.S. Index, lagged their domestic equity counterparts and returned 2.98% for the second quarter. The Industrials sector delivered the strongest results, up 5.20%, followed by Financials and Information Technology with returns of 4.37% and 3.99%, respectively. Real Estate was the worst performing sector in the quarter, with a return of -1.61%, followed by Energy at 0.54%.
- Emerging markets (EM), as represented by MSCI Emerging Market Index, lagged behind developed markets for the quarter, returning 0.61%. Emerging Market EMEA (Europe, Middle East and Africa) led the way with a return of 7.15%, while EM Asia performed the worst, returning -1.25%.
- The trade talks between the U.S. and China continued to weigh on the sentiment toward international equities during the quarter, which led to positive returns in April and June, with a negative return in May reflecting the souring market sentiment.
- The ECB reiterated a dovish stance on monetary policy, with stated intentions to restart the stimulus program, if necessary, to support the falling inflation outlook. The quagmire surrounding Brexit continued as the Conservative Party heads into voting to elect a new leader to replace Theresa May, who announced her resignation in May.

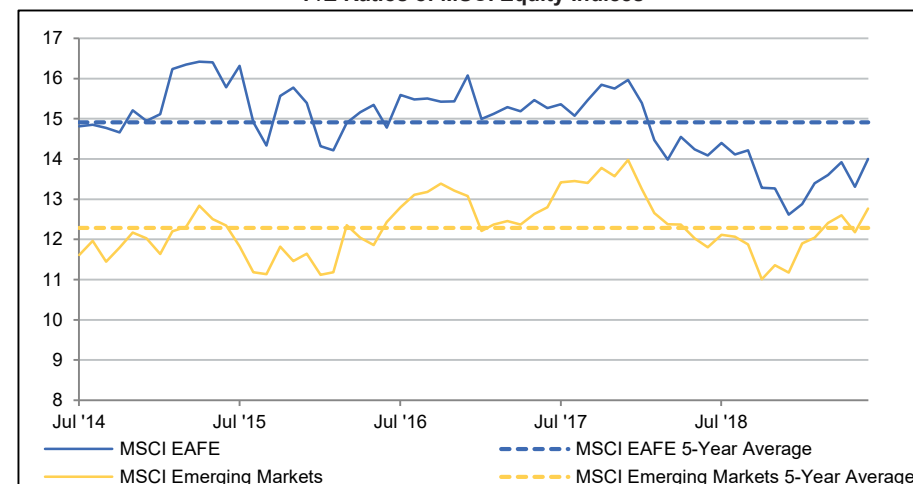
## MSCI ACWI ex-U.S. Sectors

Periods Ended June 30, 2019



Source: Bloomberg.

## P/E Ratios of MSCI Equity Indices\*



Source: Bloomberg.

\*P/E ratios are calculated based on one-year forward estimates and adjusted to include only positive earnings results for consistency.

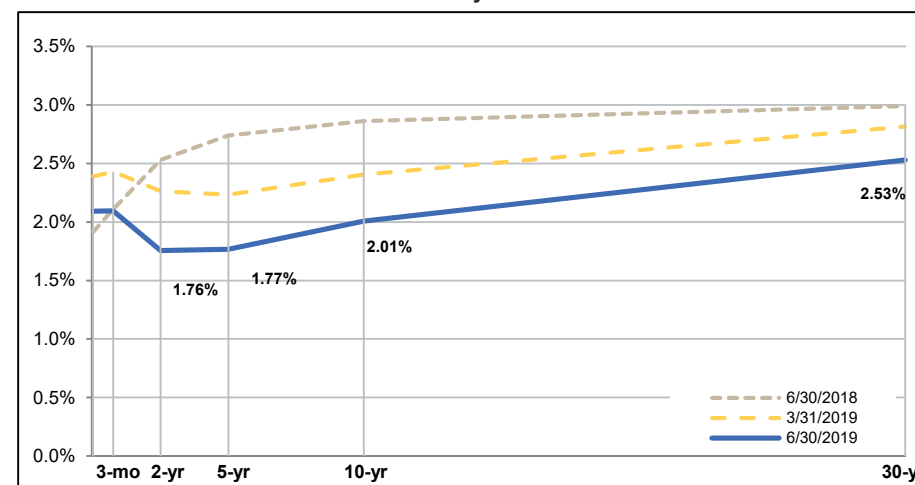


## QUARTERLY MARKET SUMMARY

## FIXED INCOME

- The U.S. bond market, represented by the Bloomberg Barclays U.S. Aggregate (Aggregate) Index, rose 3.08% in the second quarter.
- Rates fell again during the quarter with the front end and 30-year both falling about 30 basis points (bps). Short and intermediate rates represented by the 2- and 10-year Treasury had the largest moves, decreasing 52 bps and 41 bps, respectively.
- Long-term Treasury yields also fell during the quarter, with the 30-year bond ending June at a yield of 2.53%. Rates generally fell on weaker economic data and a view of a more dovish Fed as the market implied multiple rate cuts before year-end.
- Investment-grade (IG) corporate spreads slightly tightened during the quarter. The Bloomberg Barclays U.S. Corporate Index rose sharply at 4.48%, bringing a year-to-date (YTD) return of just less than 10%. High yield bonds, as represented by the Bloomberg Barclays U.S. Corporate High Yield Index also performed well at 2.50% but lagged IG counterparts as CCC-rated dragged on returns.
- The fixed-rate mortgage market, as measured by the Bloomberg Barclays U.S. Mortgage-Backed Securities (MBS) Index, gained 1.96%, while the Bloomberg Barclays U.S. Agency CMBS Index (measuring commercial MBS) gained 3.14%.
- Global bond markets were generally positive during the quarter with much of the gains coming from emerging markets. Emerging market USD sovereign bonds, as represented by the JP Morgan EMBI index, rose 4.08%.

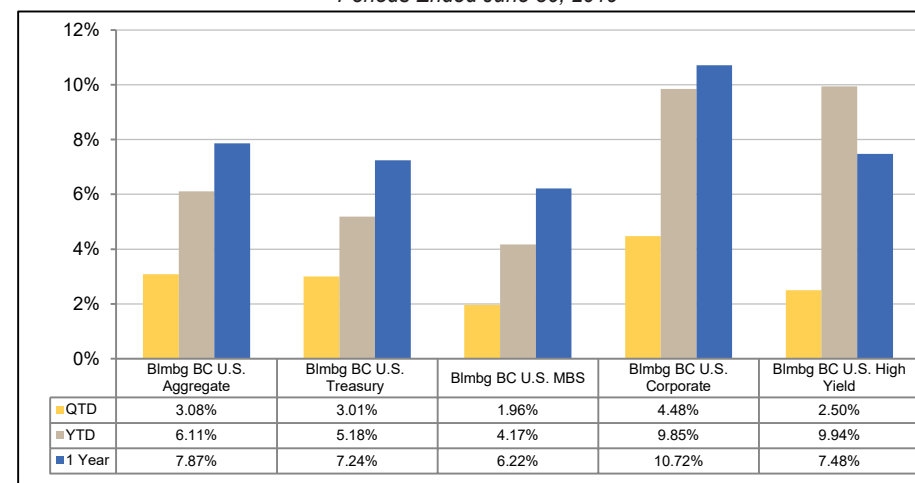
U.S. Treasury Yield Curve



Source: Bloomberg.

Returns for Fixed-Income Segments

Periods Ended June 30, 2019



Source: Bloomberg. "Blmbg BC" is Bloomberg Barclays.



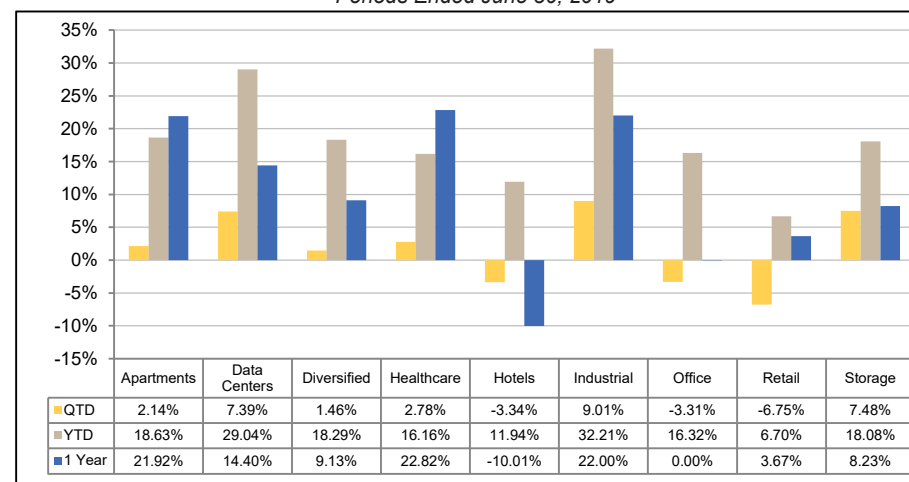
## QUARTERLY MARKET SUMMARY

## ALTERNATIVES

- REITs, as measured by the FTSE NAREIT Equity REITs Index, returned 1.24% in the second quarter, extending YTD gains after a strong return of 16.33% the previous quarter. Sector returns were mixed with six of the nine sectors posting gains. Industrial, Self-Storage, and Data Centers generated the strongest returns of 9.01%, 7.48%, and 7.39%, respectively. Office, Lodging/Resorts, and Retail returned -3.31%, -3.34%, and -6.75%, respectively.
- Private real estate, as measured by the NCREIF Property Index, generated a total return of 1.80% in the first quarter, up from the 1.37% return generated during the fourth quarter. Industrial properties continue to be the top performing sector with a return of 3.02% for the quarter. Retail rebounded during the quarter from -0.43% last quarter to a positive 1.74%.
- Hedge funds generated positive returns in the second quarter with the HFRI Fund Weighted Composite Index returning 2.02%. The HFRI Equity Hedge (Total) Index returned 1.72% during the second quarter, while the HFRI Macro (Total) Index returned 2.88% and the HFRI Fund of Funds Index returned 1.59%.
- In 2018, private capital funds raised \$757 billion, down from a record \$925 billion raised in 2017. In 2018, private capital dry powder, the capital available for fund managers to deploy, surpassed the \$2 trillion mark to reach \$2.19 trillion. Private equity dry powder, which accounts for the bulk of private capital dry powder, has reached \$1.20 trillion. As of September 2018, private equity funds generated an average 1-year internal rate of return (IRR) of 18.2% IRR and a 5-year IRR of 15.5%. Over those same time periods, private debt generated 7.9% and 7.7%, respectively.
- Commodity futures, represented by the Bloomberg Commodity Index Total Return, returned -1.19% in the second quarter, down from 5.70% in the first quarter. The U.S. Dollar Index (DXY) posted a 1.20% loss in the second quarter, following a gain of 1.15% in first quarter. Gold spot price ended the quarter at \$1,409 per ounce, up from \$1,292 per ounce at the end of the first quarter. West Texas Intermediate (WTI) Crude Oil spot price ended the quarter at \$58.20, down from \$60.14 at the end of the first quarter.

## FTSE NAREIT Sectors

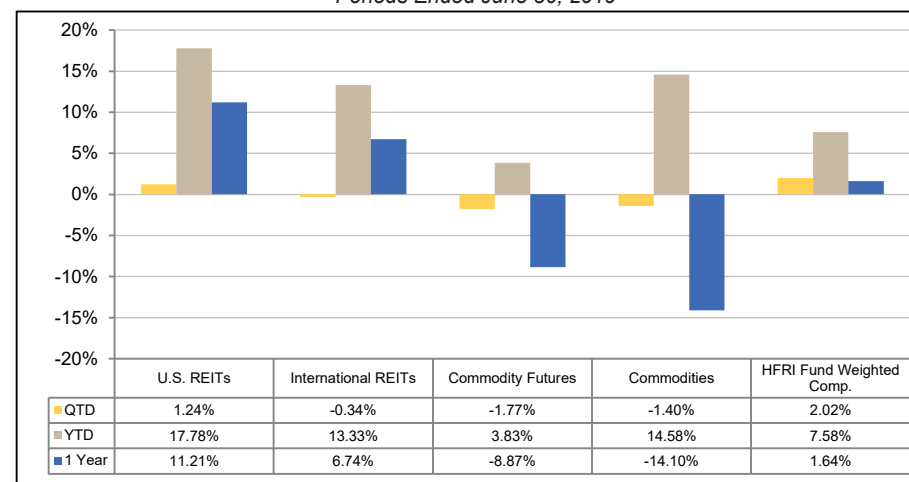
Periods Ended June 30, 2019



Source: Bloomberg.

## Returns for Alternative Assets

Periods Ended June 30, 2019



Sources: Bloomberg and Hedge Fund Research, Inc.



**Total Fund**



## Asset Allocation &amp; Performance

	Allocation		Performance(%)			
	Market Value (\$)	%	Current Quarter	Year To Date	Trailing 12-months	Fiscal Year To Date
<b>Total Fund</b>	<b>27,342,180</b>	<b>100.00</b>	<b>2.67</b>	<b>10.98</b>	<b>5.39</b>	<b>2.47</b>
<b>Blended Benchmark</b>			<b>3.79</b>	<b>13.12</b>	<b>9.00</b>	<b>4.91</b>
<b>Domestic Equity</b>	<b>12,339,932</b>	<b>45.13</b>	<b>4.22</b>	<b>18.99</b>	<b>9.33</b>	<b>2.27</b>
Fidelity 500 Index Fund	5,071,717	18.55	4.30	18.54	10.40	2.50
Vanguard 500 Index Fund	5,070,955	18.55	4.30	18.53	10.38	2.49
<i>S&amp;P 500</i>			<i>4.30</i>	<i>18.54</i>	<i>10.42</i>	<i>2.51</i>
Vanguard Mid-Cap Value Index Fund	686,420	2.51	3.87	18.21	3.53	0.41
<i>Russell Midcap Value Index</i>			<i>3.19</i>	<i>18.02</i>	<i>3.68</i>	<i>0.37</i>
Vanguard Mid-Cap Growth Index Fund	792,223	2.90	4.80	25.32	12.05	5.49
<i>Russell Midcap Growth Index</i>			<i>5.40</i>	<i>26.08</i>	<i>13.94</i>	<i>5.92</i>
Vanguard Small Cap Index Fund	718,618	2.63	2.87	19.51	2.26	-2.40
<i>Russell 2000 Index</i>			<i>2.10</i>	<i>16.98</i>	<i>-3.31</i>	<i>-6.65</i>
<b>International Equity</b>	<b>2,919,925</b>	<b>10.68</b>	<b>2.17</b>	<b>12.75</b>	<b>-2.18</b>	<b>-2.14</b>
Vanguard Developed Markets Index Fund	1,259,357	4.61	3.27	13.76	-0.02	-1.10
<i>MSCI EAFE (net)</i>			<i>3.68</i>	<i>14.03</i>	<i>1.08</i>	<i>-0.27</i>
iShares MSCI EAFE Small-Cap ETF	1,148,000	4.20	1.57	12.59	-5.80	-5.11
<i>MSCI EAFE Small Cap (net)</i>			<i>1.71</i>	<i>12.55</i>	<i>-6.35</i>	<i>-5.52</i>
Fidelity Emerging Markets Index Fund	512,568	1.87	0.86	10.69	1.41	2.57
<i>MSCI EM (net)</i>			<i>0.61</i>	<i>10.59</i>	<i>1.21</i>	<i>2.33</i>
<b>Real Estate</b>	<b>693,245</b>	<b>2.54</b>	<b>1.73</b>	<b>19.31</b>	<b>12.21</b>	<b>11.63</b>
Vanguard Real Estate Index Fund	693,245	2.54	1.73	19.31	12.21	11.63
<i>FTSE NAREIT Equity REIT Index</i>			<i>1.24</i>	<i>17.78</i>	<i>11.21</i>	<i>9.85</i>
<b>Fixed Income</b>	<b>3,970,355</b>	<b>14.52</b>	<b>2.41</b>	<b>4.96</b>	<b>6.72</b>	<b>6.00</b>
U.S. Government Securities	2,124,921	7.77	2.75	4.51	6.73	6.36
<i>Blmbg. Barc. U.S. Treasury: 1-3 Year</i>			<i>1.47</i>	<i>2.47</i>	<i>4.02</i>	<i>3.82</i>
Vanguard Short-Term Corporate Bond Index Fund	1,318,503	4.82	1.99	4.70	6.19	5.47
<i>Blmbg. Barc. U.S. Corporate 1-5 Year Index</i>			<i>2.09</i>	<i>4.75</i>	<i>6.30</i>	<i>5.55</i>
Vanguard High-Yield Corporate Fund	526,930	1.93	3.15	10.98	8.98	6.15
<i>Blmbg. Barc. U.S. Corp: High Yield</i>			<i>2.50</i>	<i>9.94</i>	<i>7.48</i>	<i>4.96</i>
<b>Cash Equivalent</b>	<b>7,418,723</b>	<b>27.13</b>	<b>0.60</b>	<b>1.25</b>	<b>2.25</b>	<b>1.89</b>
U.S. Treasury Bill	5,499,360	20.11	0.62	1.27	2.24	1.91
Wells Fargo 100% Treasury Money Market	1,919,361	7.02	0.56	1.38	N/A	1.94

Returns are net of fees.

Segment data excludes cash position(s) and is gross of fees.

Returns are expressed as percentages.

2.1



## Financial Reconciliation

Current Quarter				
	Market Value As of 04/01/2019	Net Flows	Return On Investment	Market Value As of 06/30/2019
Total Fund	26,625,594	(3,103)	719,689	27,342,180

YTD				
	Market Value As of 01/01/2019	Net Flows	Return On Investment	Market Value As of 06/30/2019
Total Fund	24,632,281	(6,043)	2,715,942	27,342,180



## Historical Hybrid Composition

Benchmark Allocation	Weight (%)
Oct-2017	
Russell 3000 Index	55.0
Blmbg. Barc. U.S. Aggregate	45.0

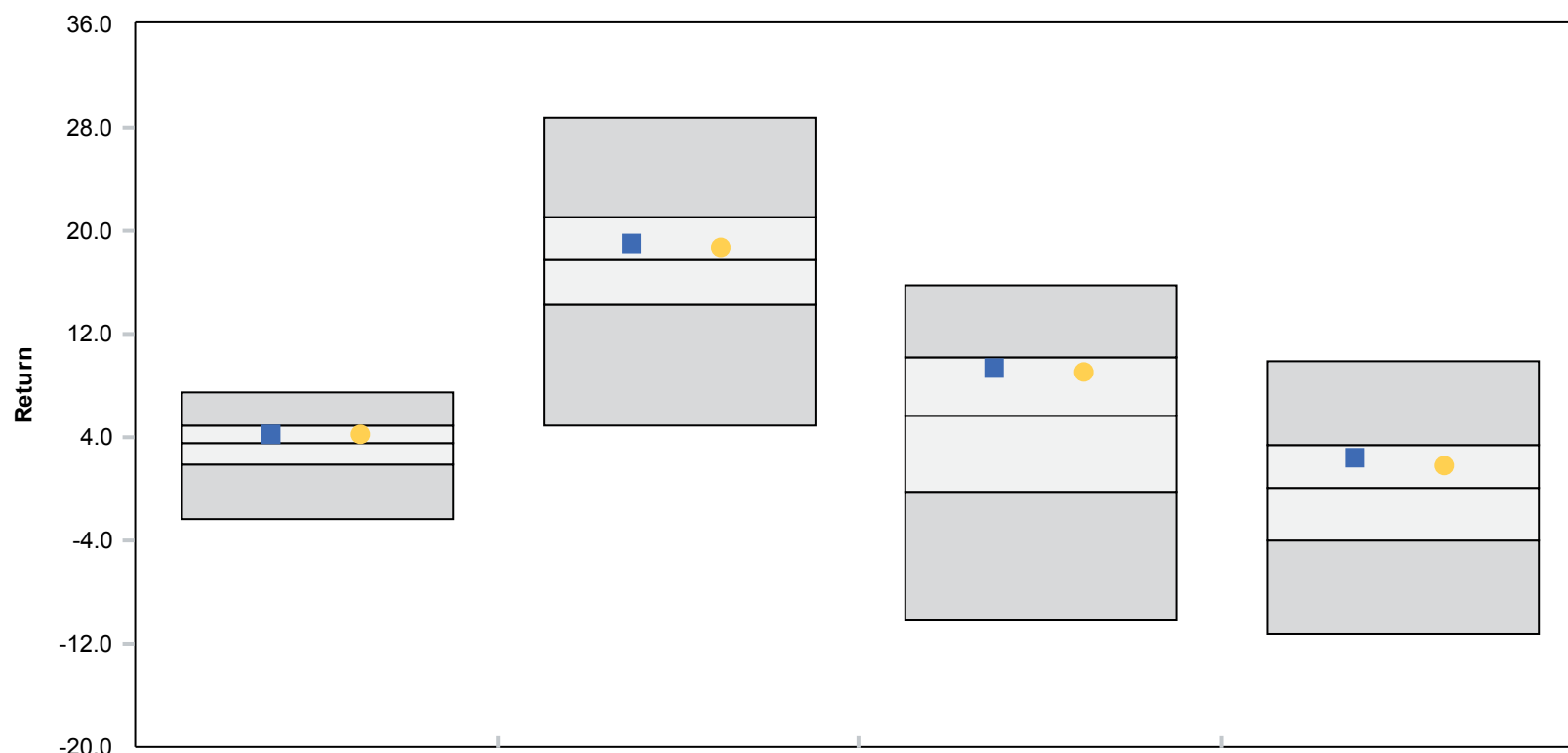




## Investment Manager Review



## IM U.S. Equity (MF)



■ Domestic Equity  
● Russell 3000 Index

	Current Quarter	Year To Date	Trailing 12-months	Fiscal Year To Date
Domestic Equity	4.22 (36)	18.99 (39)	9.33 (31)	2.27 (33)
Russell 3000 Index	4.10 (40)	18.71 (41)	8.98 (33)	1.74 (37)
5th Percentile	7.49	28.69	15.79	9.87
1st Quartile	4.83	21.06	10.18	3.38
Median	3.52	17.69	5.69	0.10
3rd Quartile	1.95	14.31	-0.19	-4.00
95th Percentile	-2.34	4.98	-10.18	-11.22
Population	9,364	9,300	9,099	9,182

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.  
Returns are net of fees and are expressed as percentages.



## Domestic Equity vs. Russell 3000 Index

<b>Portfolio Characteristics</b>		
	<b>Portfolio</b>	<b>Benchmark</b>
Wtd. Avg. Mkt. Cap (\$M)	197,848	202,131
Median Mkt. Cap (\$M)	3,644	1,670
Price/Earnings ratio	20.60	20.34
Price/Book ratio	3.42	3.39
5 Yr. EPS Growth Rate (%)	15.01	15.35
Current Yield (%)	1.89	1.88
Number of Stocks	1,966	2,954

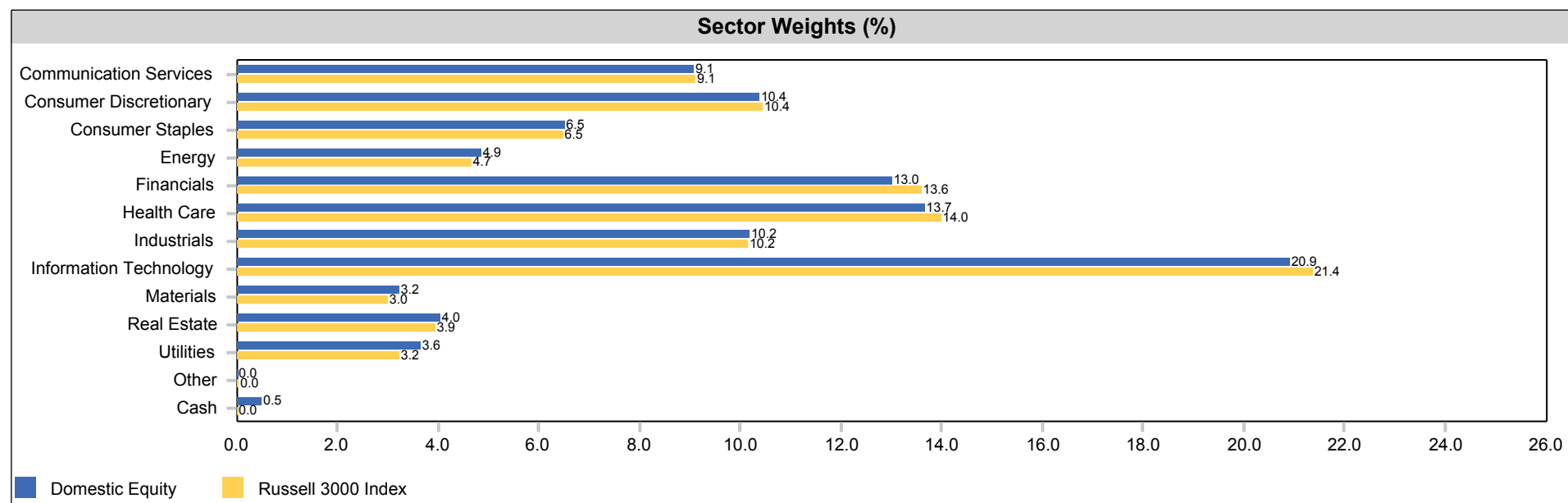
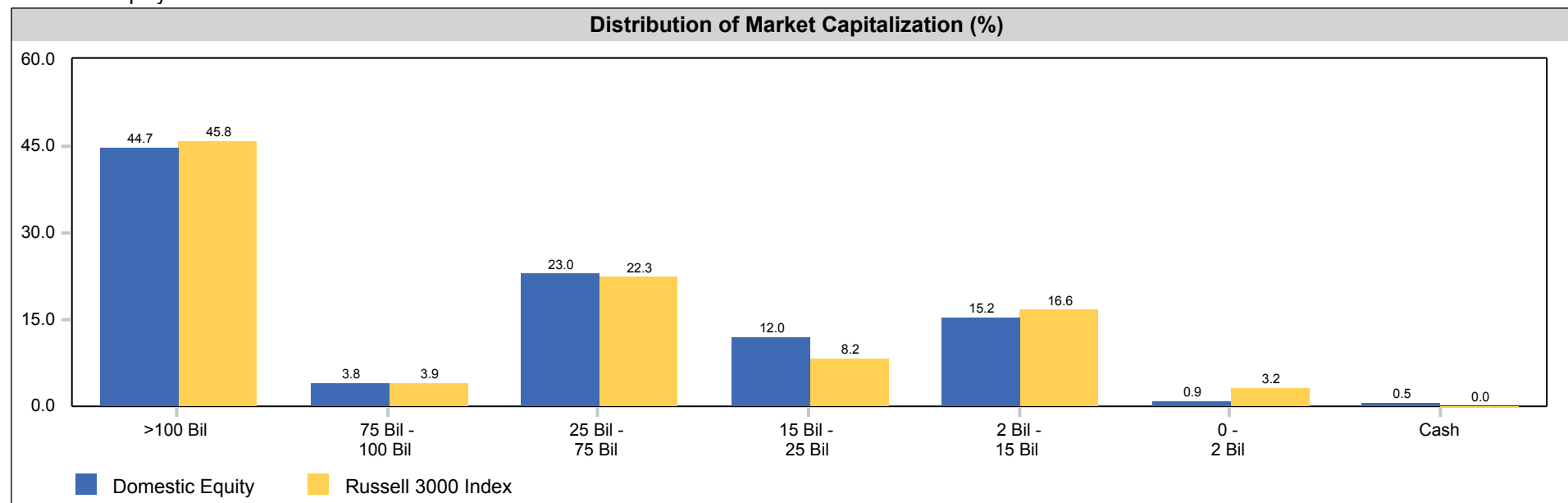
<b>Top Ten Equity Holdings</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Microsoft Corp	3.44	3.46	-0.02	14.00
Apple Inc	2.90	3.20	-0.30	4.60
Amazon.com Inc	2.62	2.65	-0.03	6.34
Facebook Inc	1.55	1.56	-0.01	15.78
Berkshire Hathaway Inc	1.36	1.41	-0.05	6.11
Johnson & Johnson	1.24	1.27	-0.03	0.32
JPMorgan Chase & Co	1.22	1.26	-0.04	11.28
Alphabet Inc	1.11	1.12	-0.01	-7.88
Exxon Mobil Corp	1.09	1.11	-0.02	-4.08
Alphabet Inc	1.09	1.10	-0.01	-8.00
% of Portfolio	17.62	18.14	-0.52	

<b>Ten Best Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Iovance Biotherapeutics Inc	0.00	0.01	-0.01	157.83
Maxar Technologies Inc	0.00	0.00	0.00	94.84
Array BioPharma Inc	0.02	0.03	-0.01	90.03
G1 Therapeutics Inc	0.00	0.00	0.00	84.70
ShockWave Medical Inc	0.00	0.00	0.00	70.57
SunPower Corp	0.00	0.00	0.00	64.21
Sonic Automotive Inc.	0.00	0.00	0.00	58.34
Anadarko Petroleum Corp	0.12	0.12	0.00	55.81
Sotheby's	0.00	0.01	-0.01	53.99
ZIOPHARM Oncology Inc	0.00	0.00	0.00	51.43
% of Portfolio	0.14	0.17	-0.03	

<b>Ten Worst Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Insys Therapeutics Inc	0.00	0.00	0.00	-93.51
Superior Energy Services Inc.	0.00	0.00	0.00	-72.16
Roan Resources Inc	0.00	0.00	0.00	-71.52
Dean Foods Co	0.00	0.00	0.00	-69.51
Puma Biotechnology Inc	0.00	0.00	0.00	-67.23
Covia Holdings Corp	0.00	0.00	0.00	-64.94
At Home Group Inc	0.00	0.00	0.00	-62.71
R.R. Donnelley & Sons Co	0.00	0.00	0.00	-57.86
Mallinckrodt Plc	0.00	0.00	0.00	-57.77
Five Prime Therapeutics Inc	0.00	0.00	0.00	-55.00
% of Portfolio	0.00	0.00	0.00	



## Domestic Equity vs. Russell 3000 Index



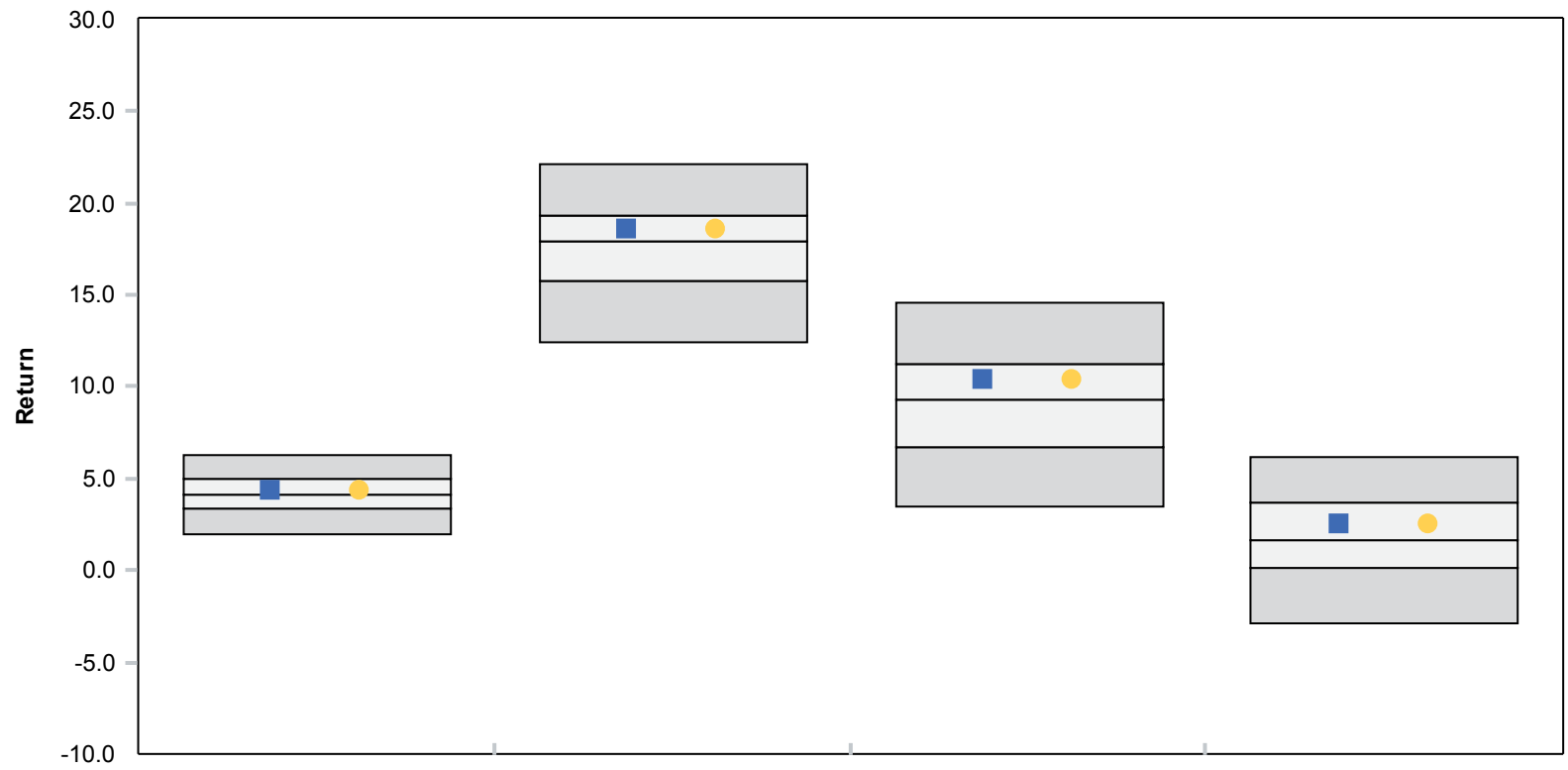
Domestic Equity vs. Russell 3000 Index

Buy-and-Hold Portfolio	4.14
Portfolio Trading	0.08
Actual Return	4.22
Benchmark Return	4.10
Actual Active Return	0.13
Stock Selection	0.18
Sector Selection	-0.05
Interaction	0.00
Total Selection	0.13
Portfolio Trading	0.08
Benchmark Trading	0.08
Active Trading Impact	0.00
Buy & Hold Active Return	0.13

	Allocation-04/01/2019		Performance-1 Quarter Ending June 30, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	8.96	9.08	4.71	4.36	0.03	0.00	0.00	0.03
Consumer Discretionary	10.43	10.37	4.56	4.57	0.00	0.00	0.00	0.00
Consumer Staples	6.59	6.53	3.30	3.31	0.00	0.00	0.00	0.00
Energy	5.26	5.07	-3.59	-3.87	0.01	-0.02	0.00	0.00
Financials	12.69	13.17	7.92	7.63	0.04	-0.02	0.00	0.02
Health Care	13.98	14.34	1.80	1.45	0.05	0.01	0.00	0.06
Industrials	10.23	10.13	4.65	4.65	0.00	0.00	0.00	0.00
Information Technology	20.71	21.11	5.75	5.66	0.02	-0.01	0.00	0.01
Materials	3.07	2.95	3.04	2.05	0.03	0.00	0.00	0.03
Real Estate	4.06	4.04	1.72	1.74	0.00	0.00	0.00	0.00
Utilities	3.69	3.22	3.45	3.57	0.00	0.00	0.00	-0.01
Cash	0.34	0.00	0.00	0.00	0.00	-0.01	0.00	-0.01
Total	100.00	100.00	4.14	4.01	0.18	-0.05	0.00	0.13



IM U.S. Large Cap Core Equity (MF)



■ Fidelity 500 Index Fund  
● S&P 500

5th Percentile	6.27	22.08	14.55	6.14
1st Quartile	4.95	19.38	11.26	3.74
Median	4.17	17.88	9.26	1.65
3rd Quartile	3.32	15.75	6.71	0.12
95th Percentile	2.02	12.38	3.47	-2.85
Population	773	768	734	749

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.  
Returns are net of fees and are expressed as percentages.



Fidelity 500 Index Fund vs. S&amp;P 500

<b>Portfolio Characteristics</b>		
	<b>Portfolio</b>	<b>Benchmark</b>
Wtd. Avg. Mkt. Cap (\$M)	238,361	238,882
Median Mkt. Cap (\$M)	22,707	22,707
Price/Earnings ratio	20.41	20.41
Price/Book ratio	3.52	3.52
5 Yr. EPS Growth Rate (%)	15.46	15.46
Current Yield (%)	1.97	1.97
Number of Stocks	507	505

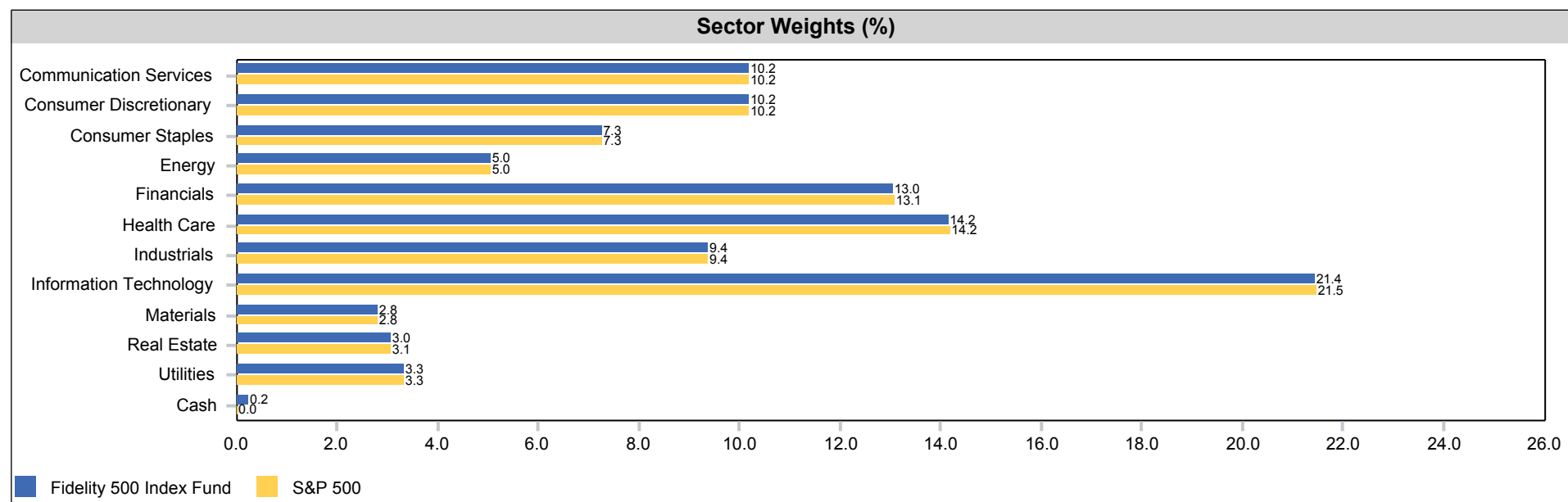
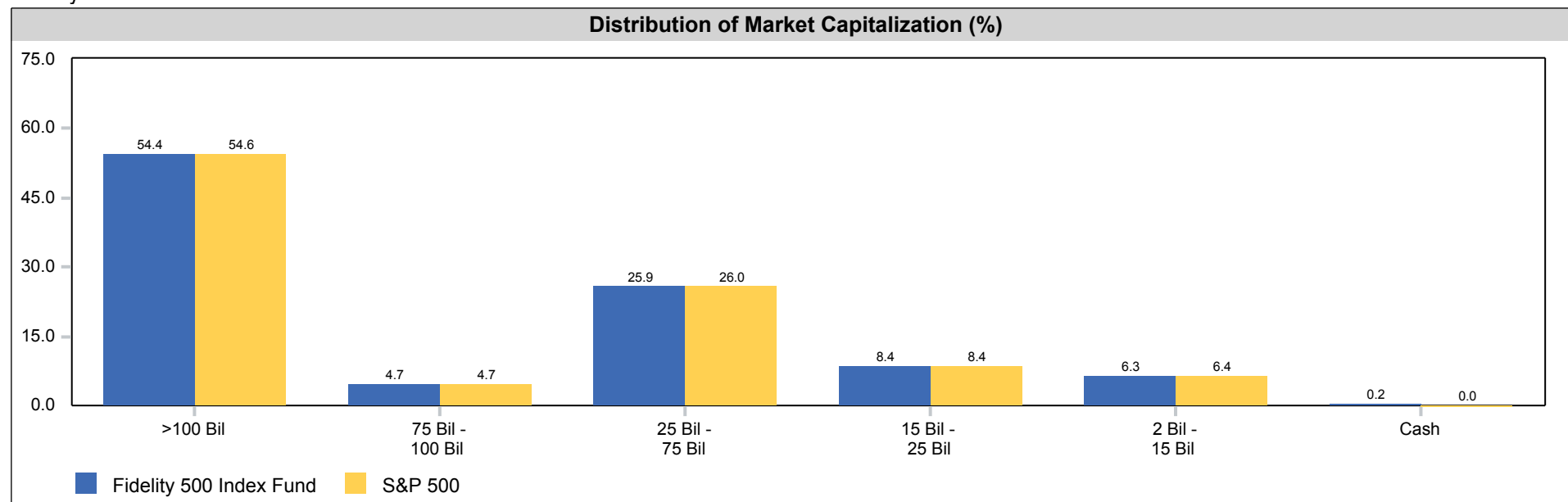
<b>Top Ten Equity Holdings</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Microsoft Corp	4.19	4.20	-0.01	14.00
Apple Inc	3.53	3.54	-0.01	4.60
Amazon.com Inc	3.20	3.21	-0.01	6.34
Facebook Inc	1.89	1.90	-0.01	15.78
Berkshire Hathaway Inc	1.69	1.69	0.00	6.11
Johnson & Johnson	1.51	1.51	0.00	0.32
JPMorgan Chase & Co	1.48	1.48	0.00	11.28
Alphabet Inc	1.35	1.36	-0.01	-7.88
Alphabet Inc	1.32	1.33	-0.01	-8.00
Exxon Mobil Corp	1.32	1.33	-0.01	-4.08
% of Portfolio	21.48	21.55	-0.07	

<b>Ten Best Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Anadarko Petroleum Corp	0.14	0.15	-0.01	55.81
Arconic Inc	0.04	0.04	0.00	35.24
Total System Services Inc.	0.09	0.09	0.00	35.14
QUALCOMM Inc.	0.38	0.38	0.00	34.62
Cerner Corp	0.10	0.10	0.00	28.45
Walt Disney Co (The)	1.00	1.00	0.00	25.77
Hasbro Inc.	0.05	0.05	0.00	25.13
American International Group Inc	0.19	0.19	0.00	24.48
CarMax Inc	0.06	0.06	0.00	24.40
Broadridge Financial Solutions Inc	0.06	0.06	0.00	23.59
% of Portfolio	2.11	2.12	-0.01	

<b>Ten Worst Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Mylan NV	0.04	0.04	0.00	-32.82
Gap Inc	0.02	0.02	0.00	-30.71
Foot Locker Inc.	0.02	0.02	0.00	-30.41
Kohl's Corp	0.03	0.03	0.00	-29.89
Nordstrom Inc.	0.01	0.01	0.00	-27.36
Capri Holdings Ltd	0.02	0.02	0.00	-24.20
Regeneron Pharmaceuticals Inc	0.10	0.10	0.00	-23.77
Occidental Petroleum Corp	0.15	0.15	0.00	-22.81
PVH Corp	0.03	0.03	0.00	-22.37
Halliburton Co	0.08	0.08	0.00	-21.75
% of Portfolio	0.50	0.50	0.00	



Fidelity 500 Index Fund vs. S&P 500





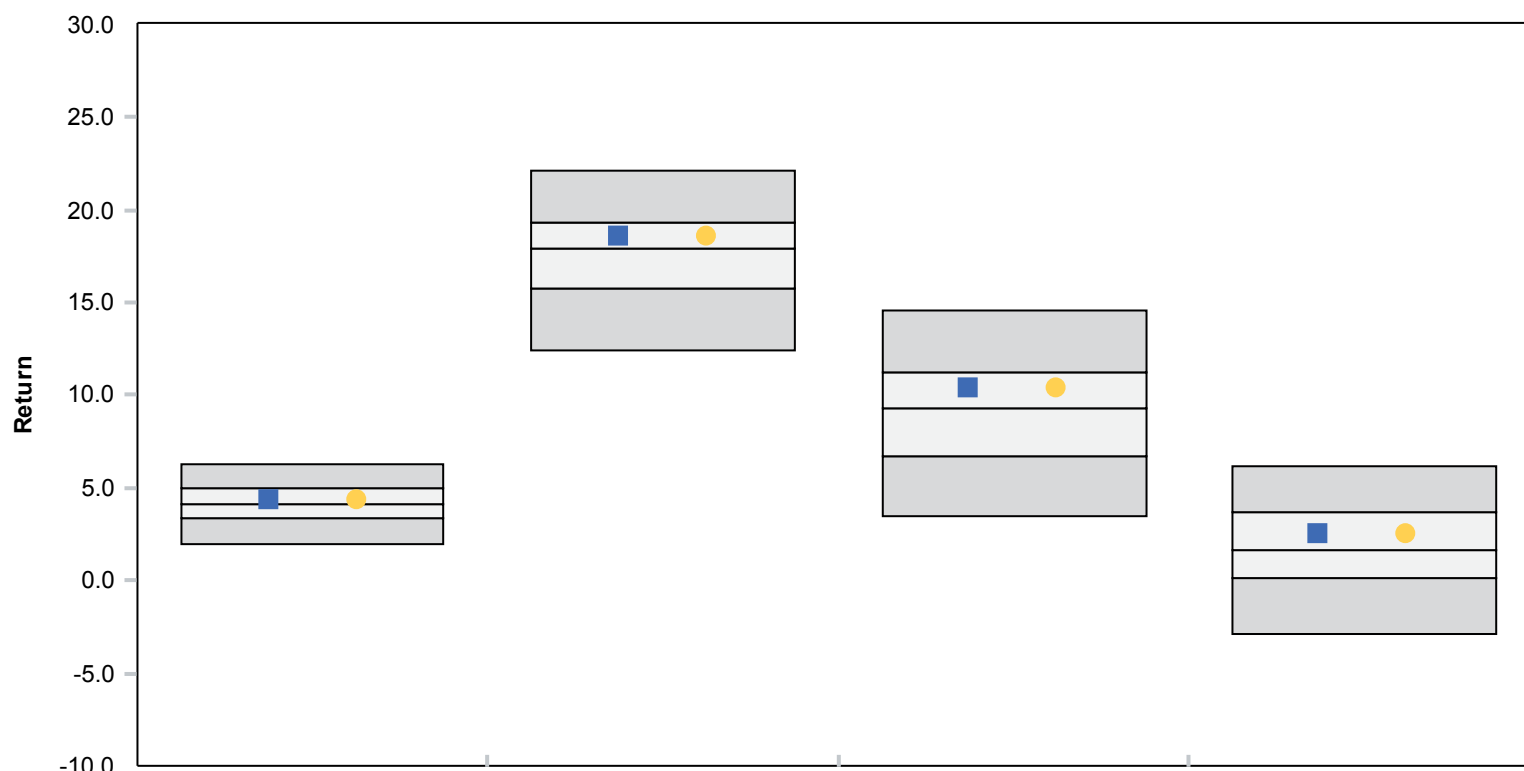
Fidelity 500 Index Fund vs. S&amp;P 500

Buy-and-Hold Portfolio	4.20
Portfolio Trading	0.10
Actual Return	4.30
Benchmark Return	4.30
Actual Active Return	0.00
Stock Selection	0.00
Sector Selection	-0.02
Interaction	0.00
Total Selection	-0.02
Portfolio Trading	0.10
Benchmark Trading	0.09
Active Trading Impact	0.01
Buy & Hold Active Return	0.00

	Allocation-04/01/2019		Performance-1 Quarter Ending June 30, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	10.06	10.11	4.49	4.49	0.00	0.00	0.00	0.00
Consumer Discretionary	10.11	10.15	5.28	5.28	0.00	0.00	0.00	0.00
Consumer Staples	7.30	7.33	3.74	3.74	0.00	0.00	0.00	0.00
Energy	5.40	5.43	-2.82	-2.82	0.00	0.00	0.00	0.00
Financials	12.64	12.69	7.99	7.99	0.00	0.00	0.00	0.00
Health Care	14.51	14.57	1.38	1.38	0.00	0.00	0.00	0.00
Industrials	9.44	9.48	3.60	3.60	0.00	0.00	0.00	0.00
Information Technology	21.11	21.19	6.06	6.06	0.00	0.00	0.00	0.00
Materials	2.63	2.64	2.66	2.66	0.00	0.00	0.00	0.00
Real Estate	3.08	3.09	2.45	2.45	0.00	0.00	0.00	0.00
Utilities	3.32	3.33	3.48	3.48	0.00	0.00	0.00	0.00
Cash	0.41	0.00	0.00	0.00	0.00	-0.02	0.00	-0.02
Total	100.00	100.00	4.20	4.21	0.00	-0.02	0.00	-0.02



## IM U.S. Large Cap Core Equity (MF)



■ Vanguard 500 Index Fund

● S&P 500

5th Percentile

1st Quartile

Median

3rd Quartile

95th Percentile

Population

**Current  
Quarter**

4.30 (45)

4.30 (45)

6.27

4.95

4.17

3.32

2.02

773

**Year  
To  
Date**

18.53 (38)

18.54 (38)

22.08

19.38

17.88

15.75

12.38

768

**Trailing  
12-months**

10.38 (34)

10.42 (34)

14.55

11.26

9.26

6.71

3.47

734

**Fiscal Year  
To Date**

2.49 (39)

2.51 (39)

6.14

3.74

1.65

0.12

-2.85

749

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.  
Returns are net of fees and are expressed as percentages.



Vanguard 500 Index Fund vs. S&amp;P 500

<u>Portfolio Characteristics</u>		
	<b>Portfolio</b>	<b>Benchmark</b>
Wtd. Avg. Mkt. Cap (\$M)	237,398	238,882
Median Mkt. Cap (\$M)	22,707	22,707
Price/Earnings ratio	20.42	20.41
Price/Book ratio	3.53	3.52
5 Yr. EPS Growth Rate (%)	15.46	15.46
Current Yield (%)	1.96	1.97
Number of Stocks	510	505

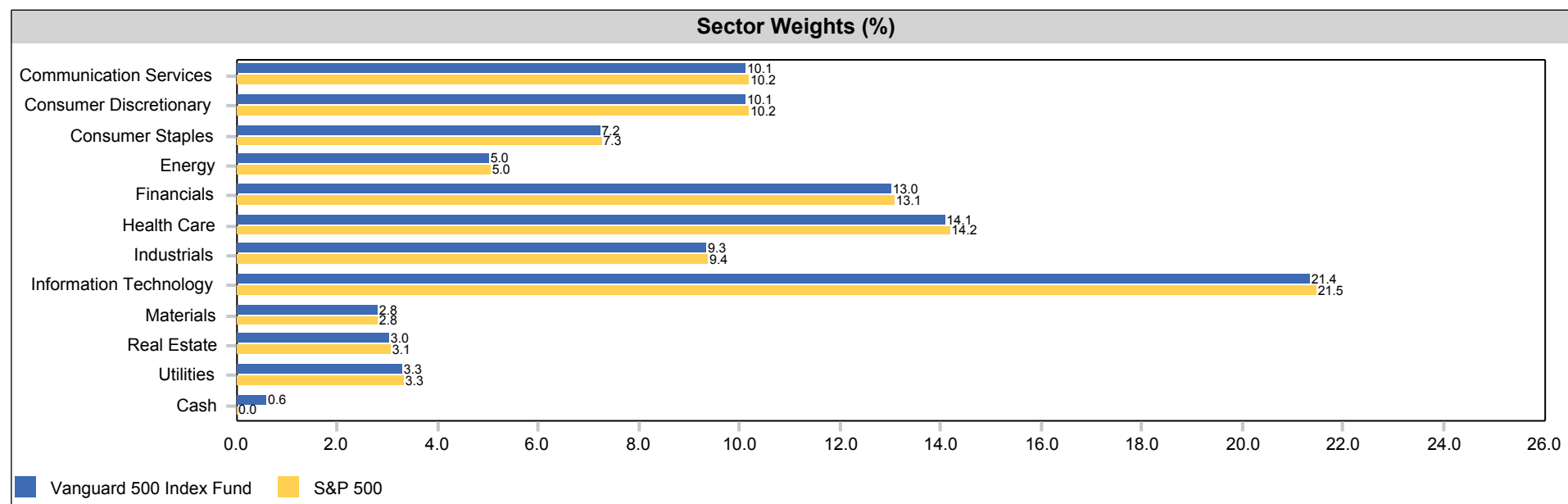
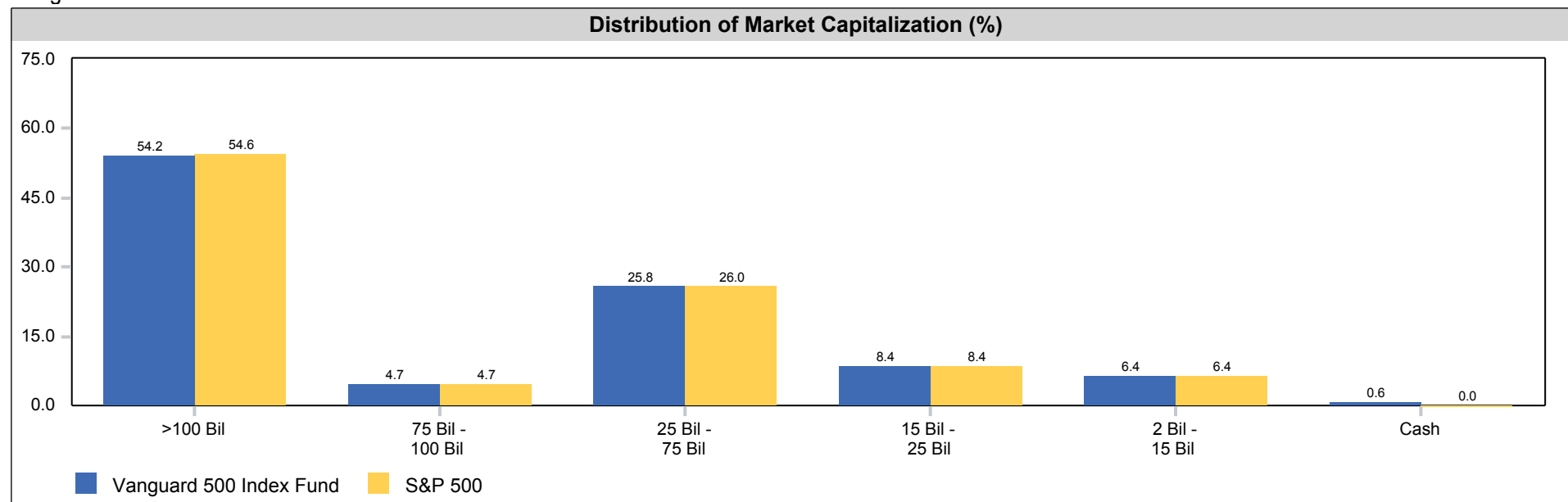
<u>Top Ten Equity Holdings</u>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Microsoft Corp	4.18	4.20	-0.02	14.00
Apple Inc	3.52	3.54	-0.02	4.60
Amazon.com Inc	3.19	3.21	-0.02	6.34
Facebook Inc	1.89	1.90	-0.01	15.78
Berkshire Hathaway Inc	1.63	1.69	-0.06	6.11
Johnson & Johnson	1.51	1.51	0.00	0.32
JPMorgan Chase & Co	1.48	1.48	0.00	11.28
Alphabet Inc	1.35	1.36	-0.01	-7.88
Exxon Mobil Corp	1.32	1.33	-0.01	-4.08
Alphabet Inc	1.32	1.33	-0.01	-8.00
% of Portfolio	21.39	21.55	-0.16	

<u>Ten Best Performers</u>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Anadarko Petroleum Corp	0.14	0.15	-0.01	55.81
Arconic Inc	0.04	0.04	0.00	35.24
Total System Services Inc.	0.08	0.09	-0.01	35.14
QUALCOMM Inc.	0.38	0.38	0.00	34.62
MarketAxess Holdings Inc	0.04	0.00	0.04	30.85
Cerner Corp	0.10	0.10	0.00	28.45
Walt Disney Co (The)	0.99	1.00	-0.01	25.77
Hasbro Inc.	0.05	0.05	0.00	25.13
American International Group Inc	0.19	0.19	0.00	24.48
CarMax Inc	0.06	0.06	0.00	24.40
% of Portfolio	2.07	2.06	0.01	

<u>Ten Worst Performers</u>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Mylan NV	0.04	0.04	0.00	-32.82
Gap Inc	0.02	0.02	0.00	-30.71
Foot Locker Inc.	0.02	0.02	0.00	-30.41
Kohl's Corp	0.03	0.03	0.00	-29.89
Nordstrom Inc.	0.01	0.01	0.00	-27.36
Capri Holdings Ltd	0.02	0.02	0.00	-24.20
Regeneron Pharmaceuticals Inc	0.10	0.10	0.00	-23.77
Occidental Petroleum Corp	0.15	0.15	0.00	-22.81
PVH Corp	0.03	0.03	0.00	-22.37
Halliburton Co	0.08	0.08	0.00	-21.75
% of Portfolio	0.50	0.50	0.00	



## Vanguard 500 Index Fund vs. S&amp;P 500



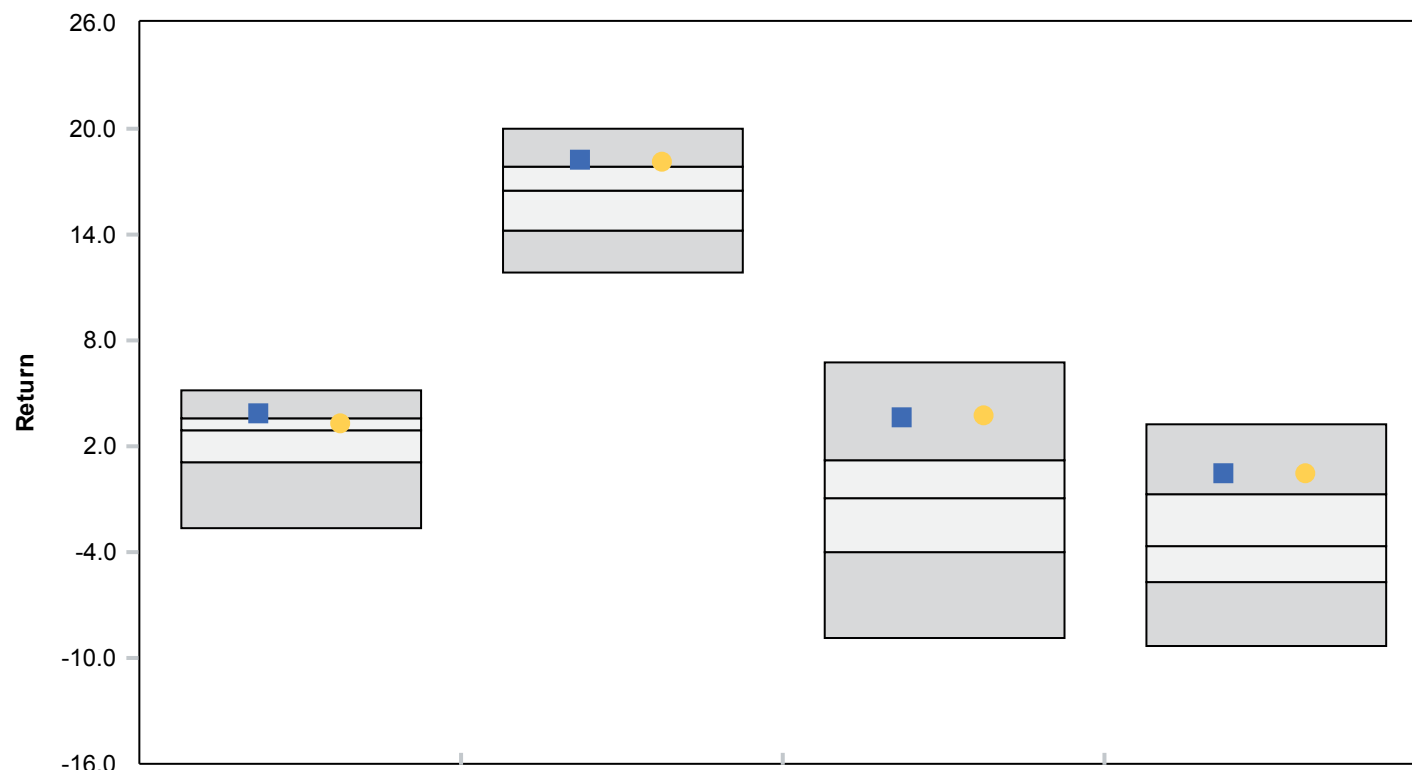
Vanguard 500 Index Fund vs. S&amp;P 500

Buy-and-Hold Portfolio	4.21
Portfolio Trading	0.08
Actual Return	4.30
Benchmark Return	4.30
Actual Active Return	-0.01
Stock Selection	0.00
Sector Selection	0.00
Interaction	0.00
Total Selection	0.00
Portfolio Trading	0.08
Benchmark Trading	0.09
Active Trading Impact	-0.01
Buy & Hold Active Return	-0.01

	Allocation-04/01/2019		Performance-1 Quarter Ending June 30, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	10.11	10.11	4.49	4.49	0.00	0.00	0.00	0.00
Consumer Discretionary	10.15	10.15	5.28	5.28	0.00	0.00	0.00	0.00
Consumer Staples	7.33	7.33	3.74	3.74	0.00	0.00	0.00	0.00
Energy	5.43	5.43	-2.82	-2.82	0.00	0.00	0.00	0.00
Financials	12.68	12.69	8.00	7.99	0.00	0.00	0.00	0.00
Health Care	14.58	14.57	1.38	1.38	0.00	0.00	0.00	0.00
Industrials	9.48	9.48	3.60	3.60	0.00	0.00	0.00	0.00
Information Technology	21.20	21.19	6.06	6.06	0.00	0.00	0.00	0.00
Materials	2.64	2.64	2.65	2.66	0.00	0.00	0.00	0.00
Real Estate	3.09	3.09	2.45	2.45	0.00	0.00	0.00	0.00
Utilities	3.33	3.33	3.48	3.48	0.00	0.00	0.00	0.00
Total	100.00	100.00	4.21	4.21	0.00	0.00	0.00	0.00



IM U.S. Mid Cap Value Equity (MF)



■ Vanguard Mid-Cap Value Index Fund

● Russell Midcap Value Index

5th Percentile

1st Quartile

Median

3rd Quartile

95th Percentile

Population

3.87 (19)

3.19 (37)

5.16

3.56

2.86

1.14

-2.61

179

Year  
To  
Date

18.21 (19)

18.02 (22)

19.96

17.81

16.49

14.20

11.80

177

Trailing  
12-months

3.53 (23)

3.68 (21)

6.73

1.26

-0.97

-3.99

-8.90

176

Fiscal Year  
To Date

0.41 (21)

0.37 (21)

3.21

-0.67

-3.64

-5.69

-9.28

177

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.  
Returns are net of fees and are expressed as percentages.



## Vanguard Mid-Cap Value Index Fund vs. Russell Midcap Value Index

<b>Portfolio Characteristics</b>		
	<b>Portfolio</b>	<b>Benchmark</b>
Wtd. Avg. Mkt. Cap (\$M)	14,793	15,762
Median Mkt. Cap (\$M)	11,610	7,901
Price/Earnings ratio	17.18	18.70
Price/Book ratio	2.26	2.19
5 Yr. EPS Growth Rate (%)	7.14	8.93
Current Yield (%)	2.34	2.35
Number of Stocks	209	587

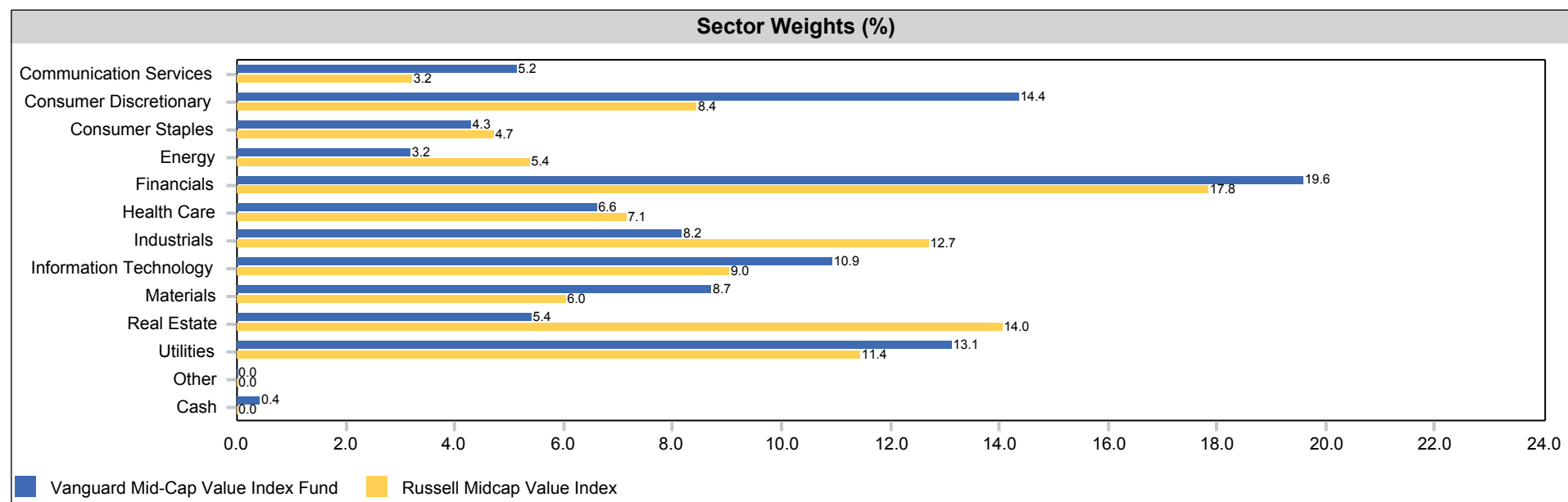
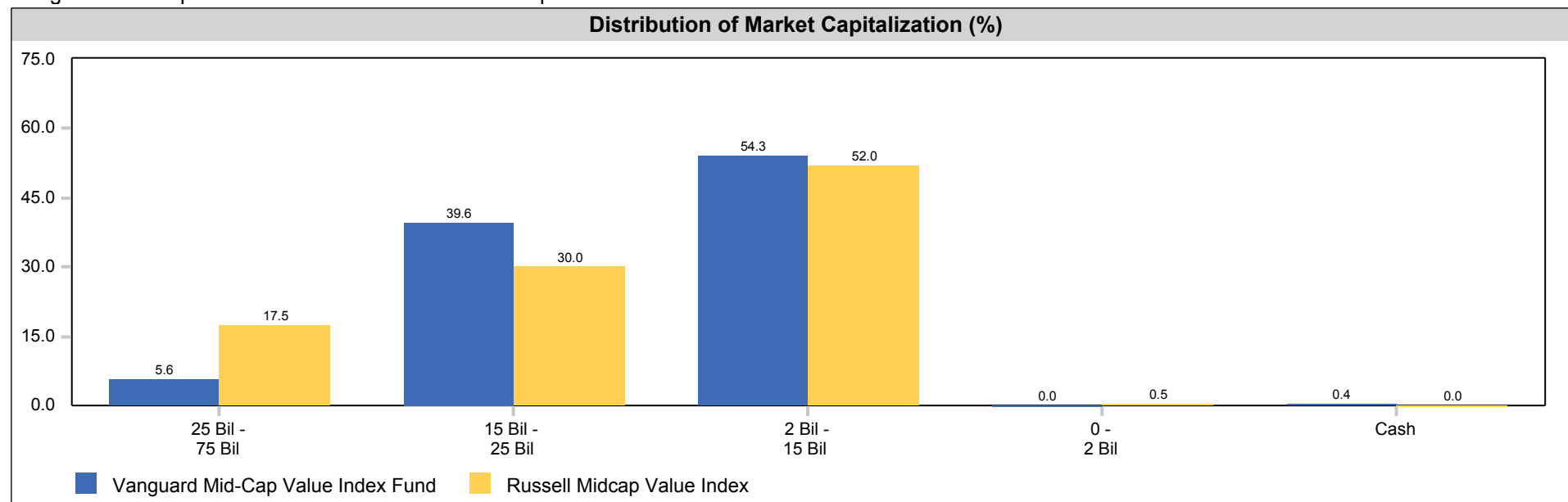
<b>Top Ten Equity Holdings</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Newmont Goldcorp Corp	1.46	0.72	0.74	10.72
Motorola Solutions Inc	1.30	0.55	0.75	19.16
WEC Energy Group Inc	1.24	0.61	0.63	6.20
Willis Towers Watson plc	1.17	0.57	0.60	9.42
Eversource Energy	1.15	0.55	0.60	7.55
DTE Energy Co	1.10	0.53	0.57	3.27
Ball Corp	1.10	0.54	0.56	21.26
FirstEnergy Corp.	1.07	0.48	0.59	3.82
M&T Bank Corp	1.04	0.54	0.50	8.99
American Water Works Co Inc	0.99	0.48	0.51	11.77
% of Portfolio	11.62	5.57	6.05	

<b>Ten Best Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Arconic Inc	0.44	0.26	0.18	35.24
PG&E Corp	0.57	0.27	0.30	28.76
Hasbro Inc.	0.60	0.06	0.54	25.13
CarMax Inc	0.34	0.13	0.21	24.40
Owens Corning	0.00	0.14	-0.14	23.51
Aramark	0.42	0.20	0.22	22.45
Cincinnati Financial Corp	0.76	0.37	0.39	21.34
Ball Corp	1.10	0.54	0.56	21.26
DISH Network Corp	0.40	0.20	0.20	21.21
Marvell Technology Group Ltd	0.71	0.22	0.49	20.37
% of Portfolio	5.34	2.39	2.95	

<b>Ten Worst Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Mylan NV	0.46	0.22	0.24	-32.82
Gap Inc	0.24	0.08	0.16	-30.71
Kohl's Corp	0.37	0.18	0.19	-29.89
Nordstrom Inc.	0.08	0.00	0.08	-27.36
Capri Holdings Ltd	0.12	0.05	0.07	-24.20
Qurate Retail Inc	0.12	0.12	0.00	-22.46
PVH Corp	0.33	0.16	0.17	-22.37
Macerich Co (The)	0.11	0.10	0.01	-21.31
Alliance Data Systems Corp	0.31	0.00	0.31	-19.56
Alcoa Corp	0.00	0.10	-0.10	-16.87
% of Portfolio	2.14	1.01	1.13	



## Vanguard Mid-Cap Value Index Fund vs. Russell Midcap Value Index





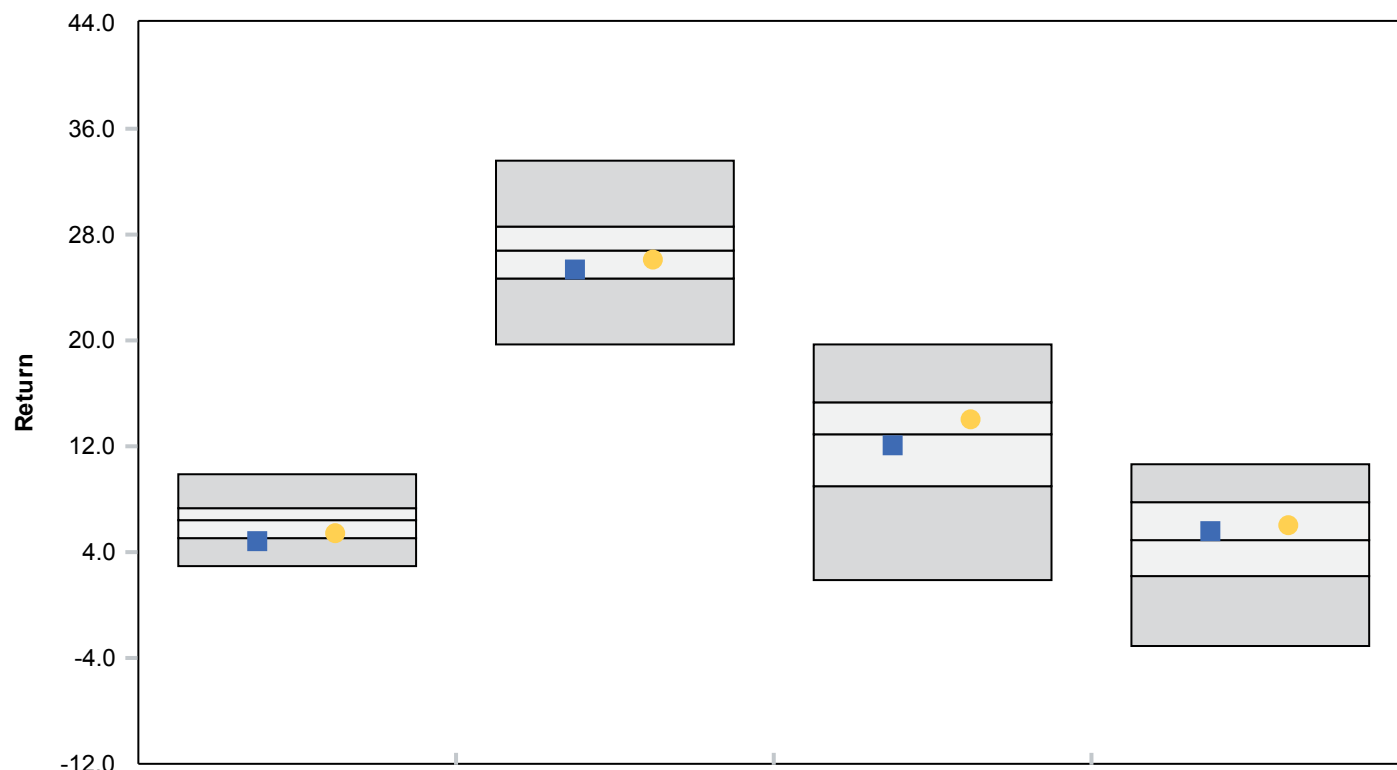
Vanguard Mid-Cap Value Index Fund vs. Russell Midcap Value Index

Buy-and-Hold Portfolio	3.92
Portfolio Trading	-0.05
Actual Return	3.87
Benchmark Return	3.19
Actual Active Return	0.67
Stock Selection	0.35
Sector Selection	0.29
Interaction	0.11
Total Selection	0.75
Portfolio Trading	-0.05
Benchmark Trading	0.02
Active Trading Impact	-0.08
Buy & Hold Active Return	0.67

	Allocation-04/01/2019		Performance-1 Quarter Ending June 30, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	4.76	3.07	9.52	7.76	0.05	0.08	0.03	0.16
Consumer Discretionary	15.70	8.74	-1.30	-0.55	-0.06	-0.26	-0.05	-0.38
Consumer Staples	4.75	4.99	0.67	-1.32	0.10	0.01	0.00	0.11
Energy	3.66	6.06	-7.58	-8.22	0.04	0.27	-0.02	0.30
Financials	18.94	17.14	8.96	7.47	0.25	0.08	0.03	0.36
Health Care	6.13	7.12	4.39	2.95	0.10	0.00	-0.01	0.09
Industrials	8.09	12.12	7.28	8.27	-0.12	-0.21	0.04	-0.29
Information Technology	11.50	8.94	4.39	5.44	-0.09	0.06	-0.03	-0.06
Materials	8.06	5.97	4.37	2.14	0.13	-0.02	0.05	0.16
Real Estate	5.16	14.48	-0.53	0.25	-0.11	0.27	0.07	0.23
Utilities	13.26	11.38	4.01	3.51	0.06	0.01	0.01	0.07
Total	100.00	100.00	3.92	3.17	0.35	0.29	0.11	0.75



IM U.S. Mid Cap Growth Equity (MF)



■ Vanguard Mid-Cap Growth Index Fund  
 ● Russell Midcap Growth Index

	Current Quarter	Year To Date	Trailing 12-months	Fiscal Year To Date
	4.80 (81)	25.32 (72)	12.05 (54)	5.49 (44)
	5.40 (70)	26.08 (63)	13.94 (41)	5.92 (38)
5th Percentile	9.87	33.51	19.66	10.61
1st Quartile	7.26	28.57	15.33	7.80
Median	6.39	26.79	12.89	4.92
3rd Quartile	5.06	24.61	9.05	2.22
95th Percentile	2.90	19.67	1.88	-3.17
Population	393	392	388	389

Parentheses contain percentile rankings.  
 Calculation based on monthly periodicity.  
 Returns are net of fees and are expressed as percentages.  
 3.17



## Vanguard Mid-Cap Growth Index Fund vs. Russell Midcap Growth Index

<u>Portfolio Characteristics</u>		
	<b>Portfolio</b>	<b>Benchmark</b>
Wtd. Avg. Mkt. Cap (\$M)	19,065	18,181
Median Mkt. Cap (\$M)	13,768	8,972
Price/Earnings ratio	32.26	24.93
Price/Book ratio	4.60	6.07
5 Yr. EPS Growth Rate (%)	16.01	17.17
Current Yield (%)	0.85	0.88
Number of Stocks	179	418

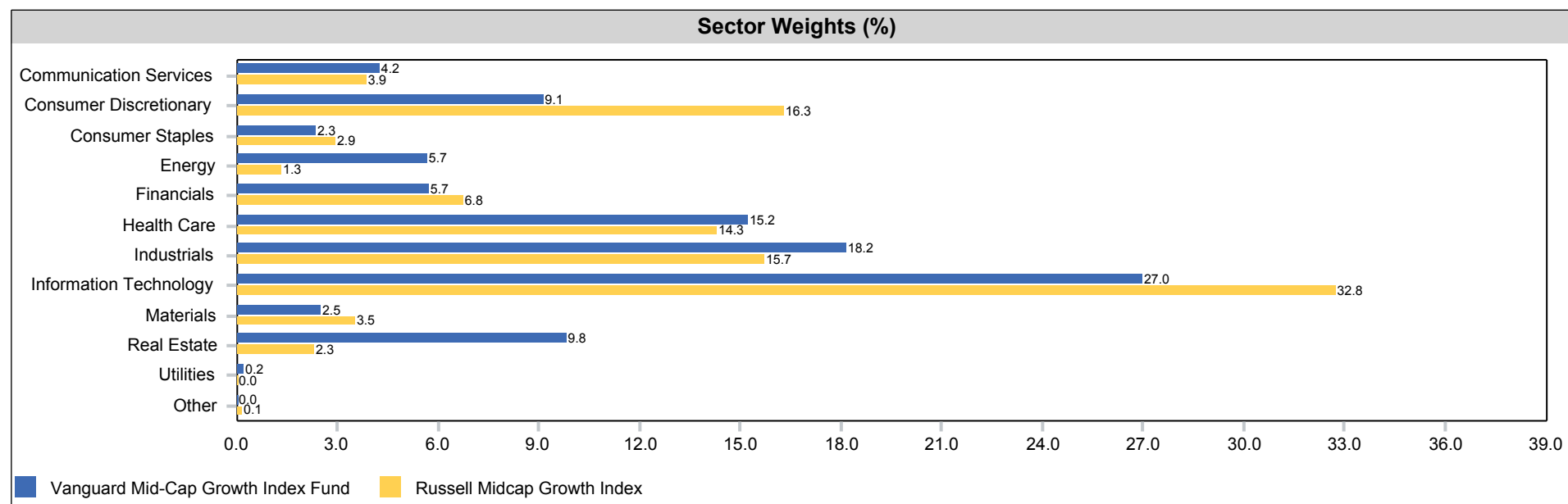
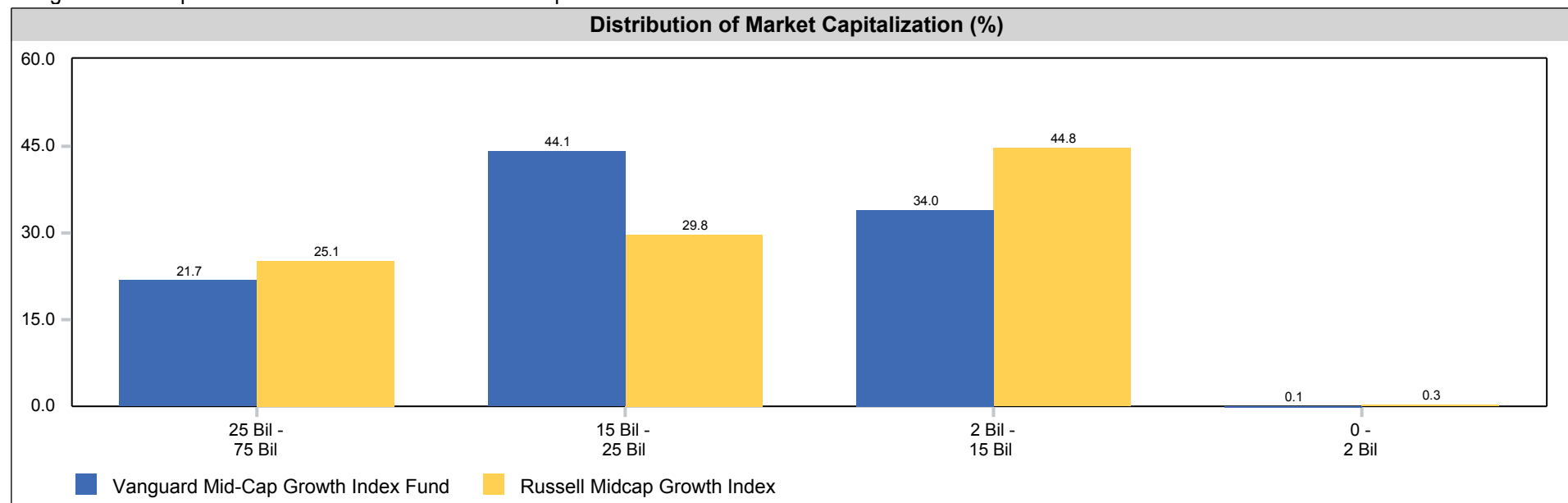
<u>Top Ten Equity Holdings</u>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Fiserv Inc.	1.63	1.11	0.52	3.26
Red Hat Inc	1.44	1.02	0.42	2.77
Xilinx Inc.	1.36	0.92	0.44	-6.70
Advanced Micro Devices Inc	1.34	0.87	0.47	19.00
Amphenol Corp	1.30	0.87	0.43	1.84
ONEOK Inc.	1.29	0.36	0.93	-0.24
Iqvia Holdings Inc	1.23	0.00	1.23	11.85
Dollar Tree Inc	1.16	0.13	1.03	2.24
Twitter Inc	1.16	0.77	0.39	6.14
SBA Communications Corp	1.16	0.77	0.39	12.61
% of Portfolio	13.07	6.82	6.25	

<u>Ten Best Performers</u>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Okta Inc	0.29	0.33	-0.04	49.29
HEICO Corp	0.12	0.16	-0.04	41.12
EXACT Sciences Corp	0.34	0.43	-0.09	36.27
Total System Services Inc.	0.93	0.71	0.22	35.14
SNAP INC	0.45	0.00	0.45	29.76
Cerner Corp	1.03	0.31	0.72	28.45
Veeva Systems Inc	0.94	0.62	0.32	27.79
DexCom Inc	0.62	0.40	0.22	25.81
CarMax Inc	0.33	0.27	0.06	24.40
Broadridge Financial Solutions Inc	0.67	0.45	0.22	23.59
% of Portfolio	5.72	3.68	2.04	

<u>Ten Worst Performers</u>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Alkermes Plc	0.00	0.11	-0.11	-38.23
Alnylam Pharmaceuticals Inc	0.35	0.19	0.16	-22.35
Arista Networks Inc	0.63	0.46	0.17	-17.44
NRG Energy Inc	0.20	0.00	0.20	-17.26
Palo Alto Networks Inc	0.84	0.57	0.27	-16.11
Lyft Inc	0.12	0.00	0.12	-16.07
Apache Corp	0.49	0.02	0.47	-15.83
CDK Global Inc	0.14	0.19	-0.05	-15.69
Lamb Weston Holdings Inc	0.42	0.00	0.42	-15.20
Cimarex Energy Co.	0.14	0.02	0.12	-14.87
% of Portfolio	3.33	1.56	1.77	



## Vanguard Mid-Cap Growth Index Fund vs. Russell Midcap Growth Index



## Buy and Hold Sector Attribution

1 Quarter Ending June 30, 2019

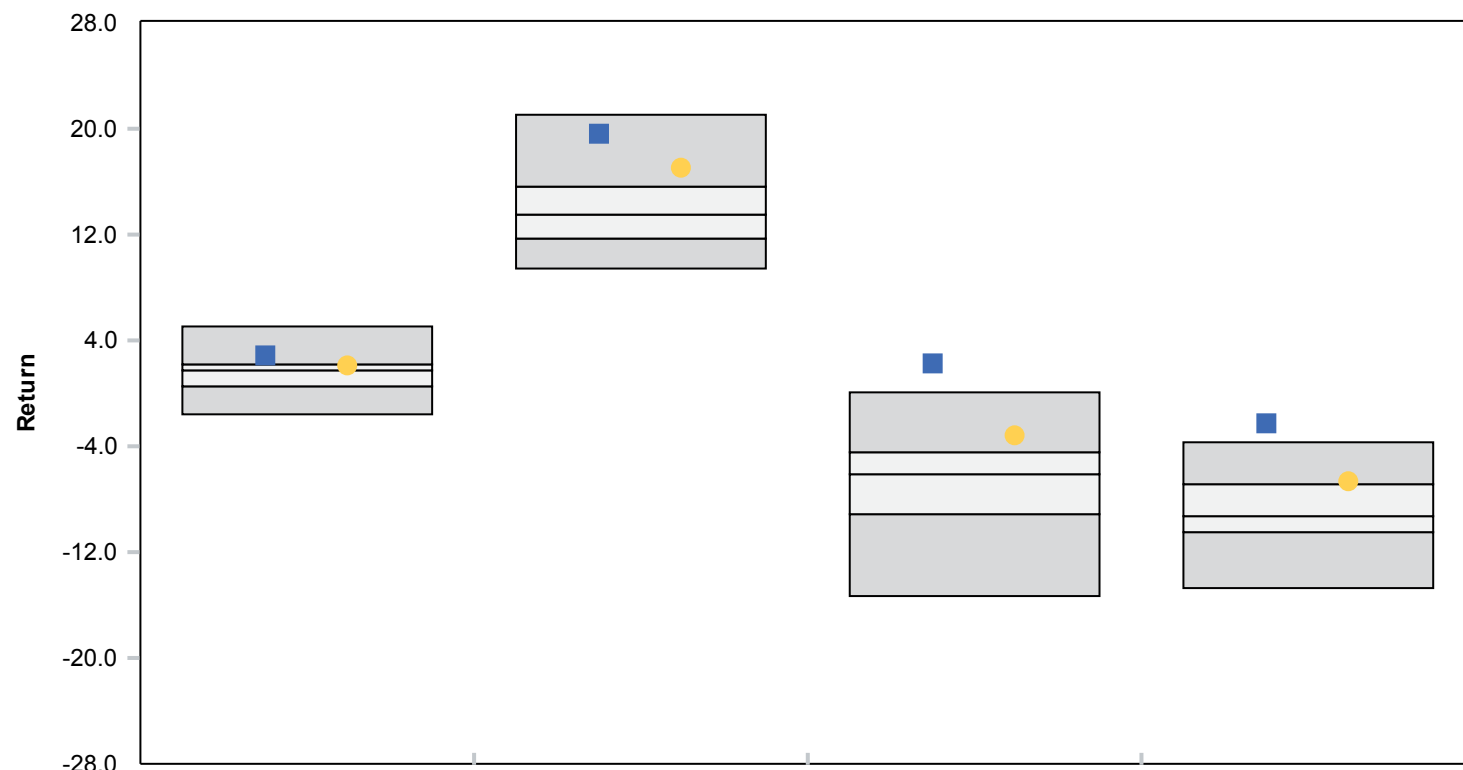
Vanguard Mid-Cap Growth Index Fund vs. Russell Midcap Growth Index

Buy-and-Hold Portfolio	4.78
Portfolio Trading	0.02
Actual Return	4.80
Benchmark Return	5.40
Actual Active Return	-0.61
Stock Selection	0.11
Sector Selection	-0.52
Interaction	-0.21
Total Selection	-0.63
Portfolio Trading	0.02
Benchmark Trading	-0.01
Active Trading Impact	0.02
Buy & Hold Active Return	-0.61

	Allocation-04/01/2019		Performance-1 Quarter Ending June 30, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	3.58	3.76	10.03	7.70	0.09	0.00	0.00	0.08
Consumer Discretionary	9.14	16.12	5.75	6.57	-0.13	-0.08	0.06	-0.16
Consumer Staples	2.43	3.03	-2.06	2.59	-0.14	0.02	0.03	-0.10
Energy	6.30	1.47	-4.42	-4.49	0.00	-0.48	0.00	-0.47
Financials	6.11	6.44	7.57	10.54	-0.19	-0.02	0.01	-0.20
Health Care	15.29	14.42	5.78	3.94	0.27	-0.01	0.02	0.27
Industrials	17.63	15.72	8.15	6.24	0.30	0.02	0.04	0.35
Information Technology	26.41	33.20	4.04	4.53	-0.16	0.06	0.03	-0.07
Materials	2.70	3.55	10.06	4.93	0.18	0.00	-0.04	0.14
Real Estate	9.66	2.28	1.52	6.20	-0.11	0.06	-0.35	-0.39
Utilities	0.27	0.00	-17.26	0.00	0.00	-0.06	0.00	-0.06
Cash	0.47	0.00	0.00	0.00	0.00	-0.03	0.00	-0.03
Total	100.00	100.00	4.78	5.41	0.11	-0.52	-0.21	-0.63



IM U.S. Small Cap Core Equity (MF)



■ Vanguard Small Cap Index Fund

● Russell 2000 Index

	Current Quarter	Year To Date	Trailing 12-months	Fiscal Year To Date
	2.87 (16)	19.51 (8)	2.26 (2)	-2.40 (3)
	2.10 (30)	16.98 (21)	-3.31 (15)	-6.65 (22)
5th Percentile	5.02	21.03	0.12	-3.63
1st Quartile	2.26	15.62	-4.53	-6.93
Median	1.67	13.47	-6.11	-9.22
3rd Quartile	0.59	11.63	-9.09	-10.50
95th Percentile	-1.61	9.41	-15.36	-14.65
Population	165	165	162	163

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.  
Returns are net of fees and are expressed as percentages.



## Vanguard Small Cap Index Fund vs. Russell 2000 Index

<b>Portfolio Characteristics</b>		
	<b>Portfolio</b>	<b>Benchmark</b>
Wtd. Avg. Mkt. Cap (\$M)	4,779	2,569
Median Mkt. Cap (\$M)	2,314	787
Price/Earnings ratio	19.24	18.12
Price/Book ratio	2.70	2.44
5 Yr. EPS Growth Rate (%)	14.11	13.91
Current Yield (%)	1.61	1.42
Number of Stocks	1,402	1,977

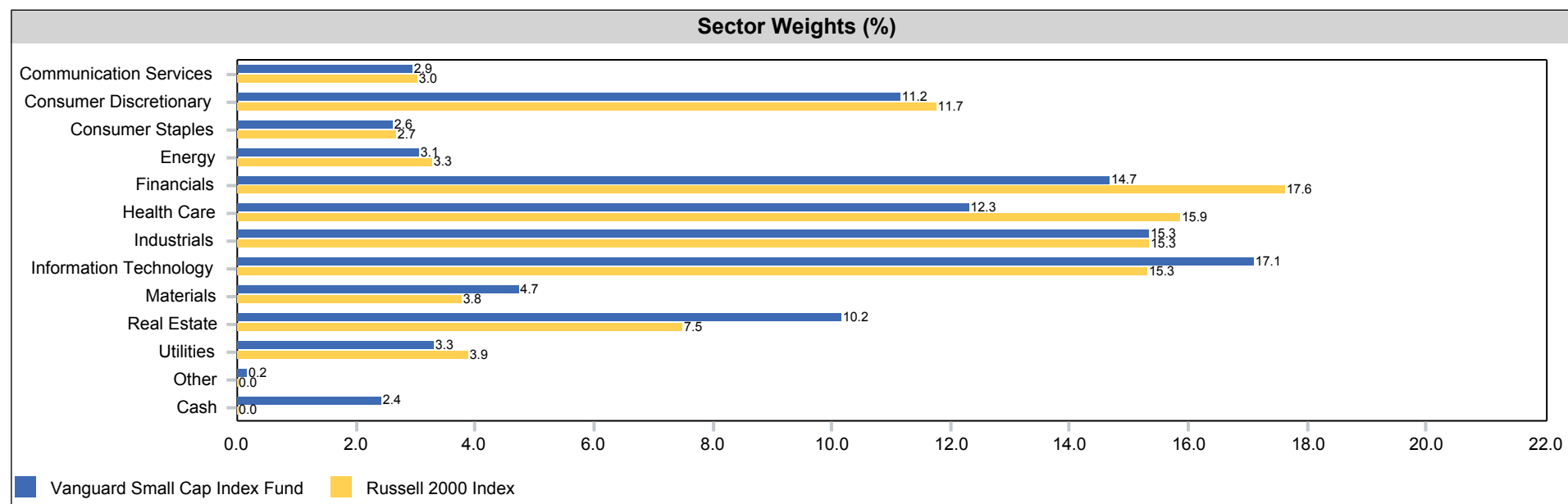
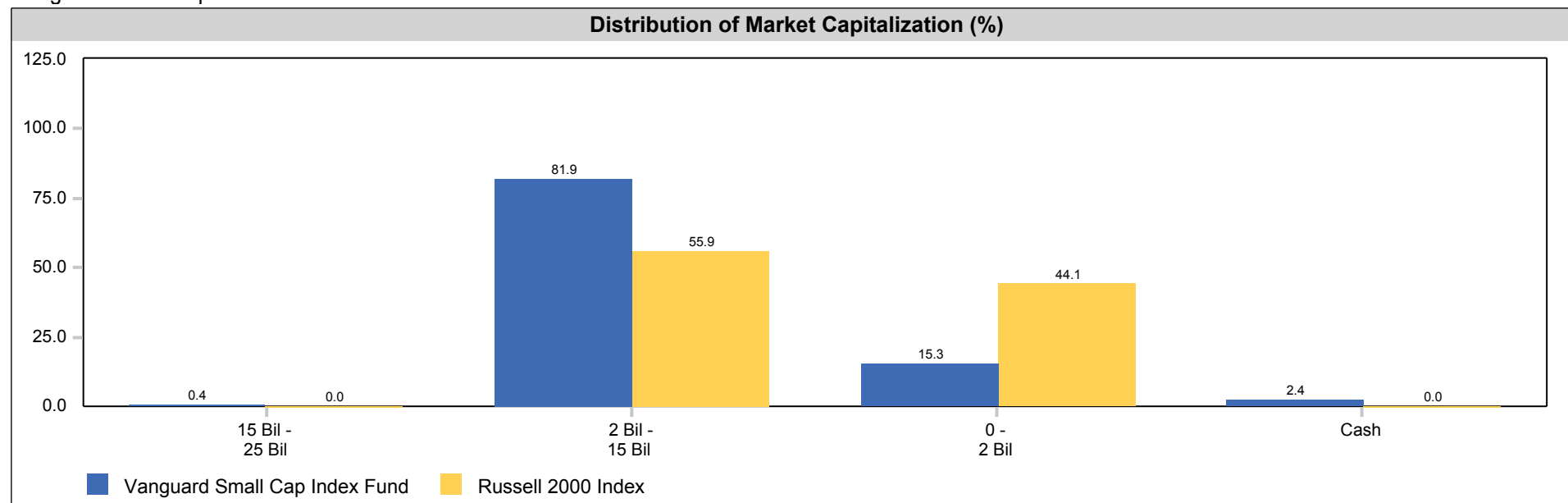
<b>Top Ten Equity Holdings</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
CASH	2.44	0.00	2.44	N/A
IDEX Corp	0.35	0.00	0.35	13.81
Steris Plc	0.34	0.00	0.34	16.57
Tableau Software Inc	0.34	0.00	0.34	30.44
Atmos Energy Corp	0.34	0.00	0.34	3.08
Leidos Holdings Inc	0.31	0.00	0.31	25.10
MarketAxess Holdings Inc	0.31	0.00	0.31	30.85
Zebra Technologies Corp.	0.31	0.00	0.31	-0.02
Burlington Stores Inc	0.31	0.00	0.31	8.60
Sun Communities Inc.	0.30	0.00	0.30	8.80
% of Portfolio	5.35	0.00	5.35	

<b>Ten Best Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Iovance Biotherapeutics Inc	0.04	0.13	-0.09	157.83
Maxar Technologies Inc	0.01	0.02	-0.01	94.84
Array BioPharma Inc	0.28	0.48	-0.20	90.03
G1 Therapeutics Inc	0.01	0.03	-0.02	84.70
ShockWave Medical Inc	0.01	0.00	0.01	70.57
SunPower Corp	0.02	0.03	-0.01	64.21
Sonic Automotive Inc.	0.01	0.03	-0.02	58.34
Sotheby's	0.06	0.09	-0.03	53.99
ZIOPHARM Oncology Inc	0.01	0.04	-0.03	51.43
Cypress Semiconductor Corp	0.22	0.00	0.22	49.80
% of Portfolio	0.67	0.85	-0.18	

<b>Ten Worst Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Insys Therapeutics Inc	0.00	0.00	0.00	-93.51
Superior Energy Services Inc.	0.00	0.01	-0.01	-72.16
Roan Resources Inc	0.00	0.00	0.00	-71.52
Dean Foods Co	0.00	0.00	0.00	-69.51
Puma Biotechnology Inc	0.01	0.02	-0.01	-67.23
Covia Holdings Corp	0.00	0.00	0.00	-64.94
At Home Group Inc	0.01	0.01	0.00	-62.71
R.R. Donnelley & Sons Co	0.00	0.01	-0.01	-57.86
Mallinckrodt Plc	0.02	0.04	-0.02	-57.77
Five Prime Therapeutics Inc	0.00	0.01	-0.01	-55.00
% of Portfolio	0.04	0.10	-0.06	



## Vanguard Small Cap Index Fund vs. Russell 2000 Index





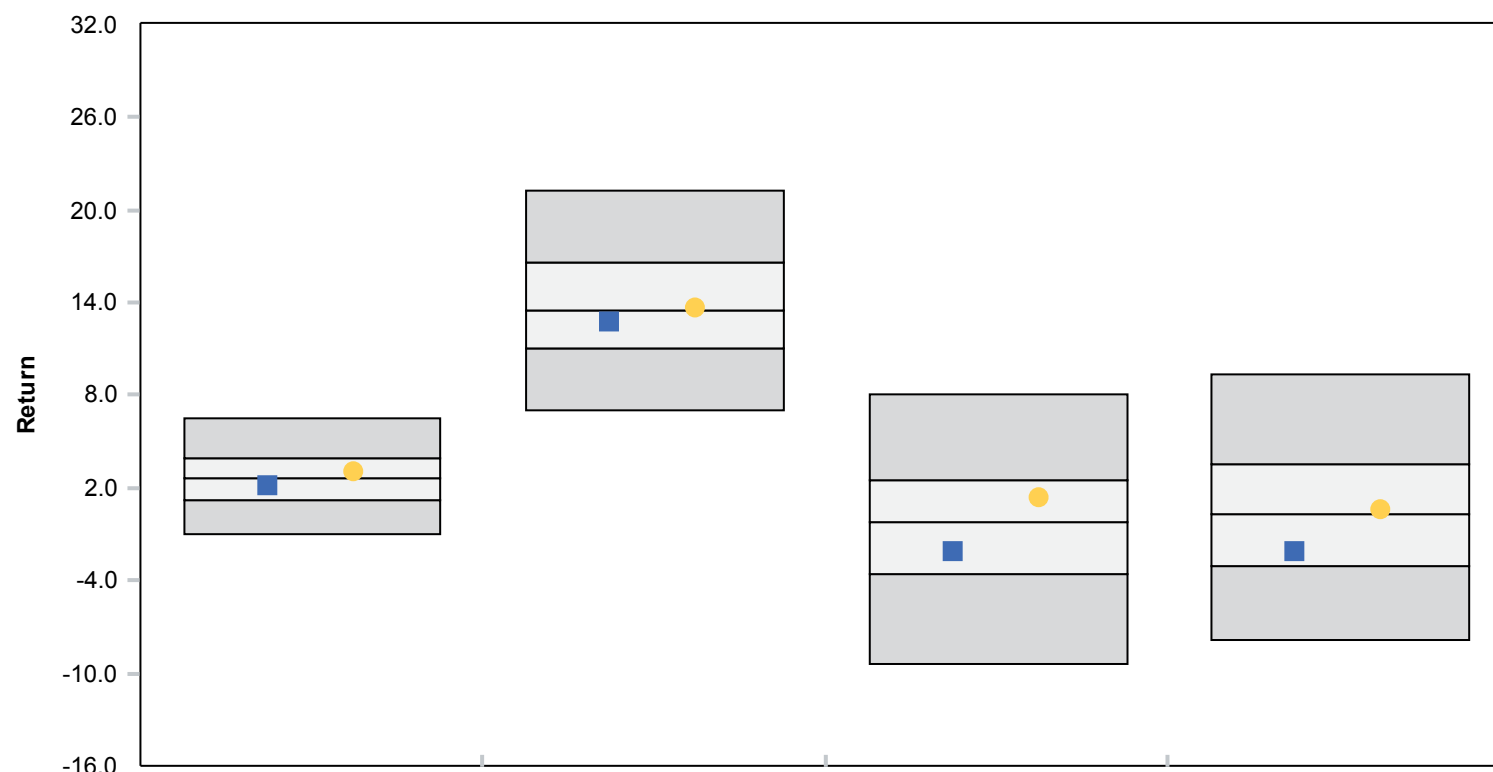
Vanguard Small Cap Index Fund vs. Russell 2000 Index

Buy-and-Hold Portfolio	2.77
Portfolio Trading	0.09
Actual Return	2.87
Benchmark Return	2.10
Actual Active Return	0.77
Stock Selection	0.83
Sector Selection	0.01
Interaction	-0.15
Total Selection	0.69
Portfolio Trading	0.09
Benchmark Trading	0.01
Active Trading Impact	0.08
Buy & Hold Active Return	0.77

	Allocation-04/01/2019		Performance-1 Quarter Ending June 30, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	3.02	3.25	1.11	-5.91	0.23	0.02	-0.02	0.23
Consumer Discretionary	10.95	12.01	2.28	-0.65	0.35	0.03	-0.03	0.35
Consumer Staples	2.69	2.79	-3.51	-3.18	-0.01	0.01	0.00	0.00
Energy	3.50	3.71	-14.65	-8.56	-0.23	0.02	0.01	-0.19
Financials	14.43	17.10	5.90	5.15	0.13	-0.08	-0.02	0.03
Health Care	12.17	15.98	2.22	-0.19	0.39	0.09	-0.09	0.38
Industrials	15.00	14.41	8.11	8.73	-0.09	0.04	0.00	-0.05
Information Technology	17.08	15.60	4.02	2.54	0.23	0.01	0.02	0.26
Materials	4.86	3.84	-0.38	-0.68	0.01	-0.03	0.00	-0.01
Real Estate	10.53	7.56	-0.04	1.14	-0.09	-0.03	-0.03	-0.15
Utilities	3.35	3.76	2.87	5.25	-0.09	-0.01	0.01	-0.09
Cash	2.43	0.00	0.00	0.00	0.00	-0.05	0.00	-0.05
Total	100.00	100.00	2.77	2.08	0.83	0.01	-0.15	0.69



IM International Equity (MF)



■ International Equity  
● MSCI AC World ex USA (Net)

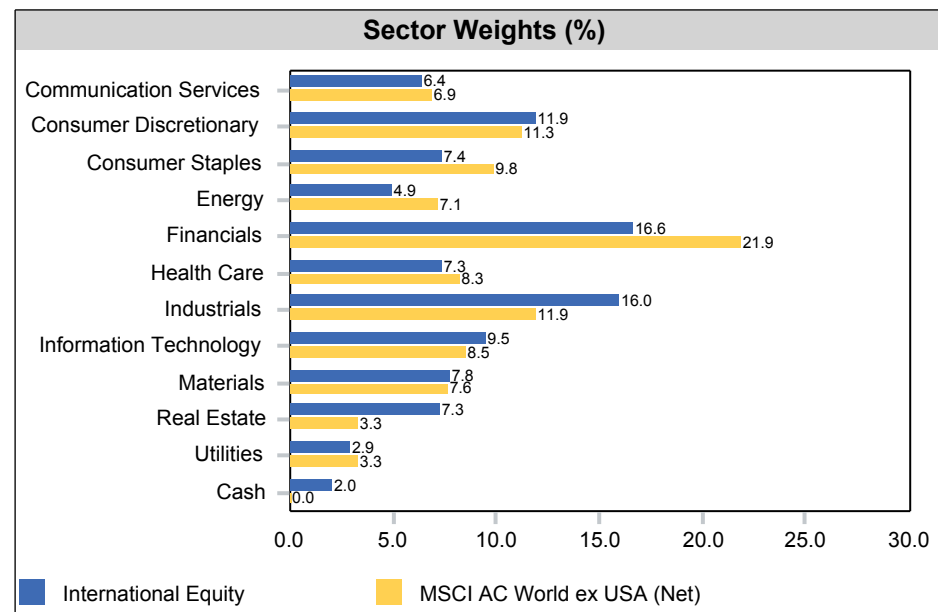
5th Percentile	6.48	21.22	8.02	9.40
1st Quartile	3.92	16.55	2.56	3.60
Median	2.58	13.47	-0.27	0.31
3rd Quartile	1.20	11.08	-3.64	-3.00
95th Percentile	-1.04	6.98	-9.42	-7.91
Population	3,253	3,209	3,089	3,145

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.  
Returns are net of fees and are expressed as percentages.  
3.25

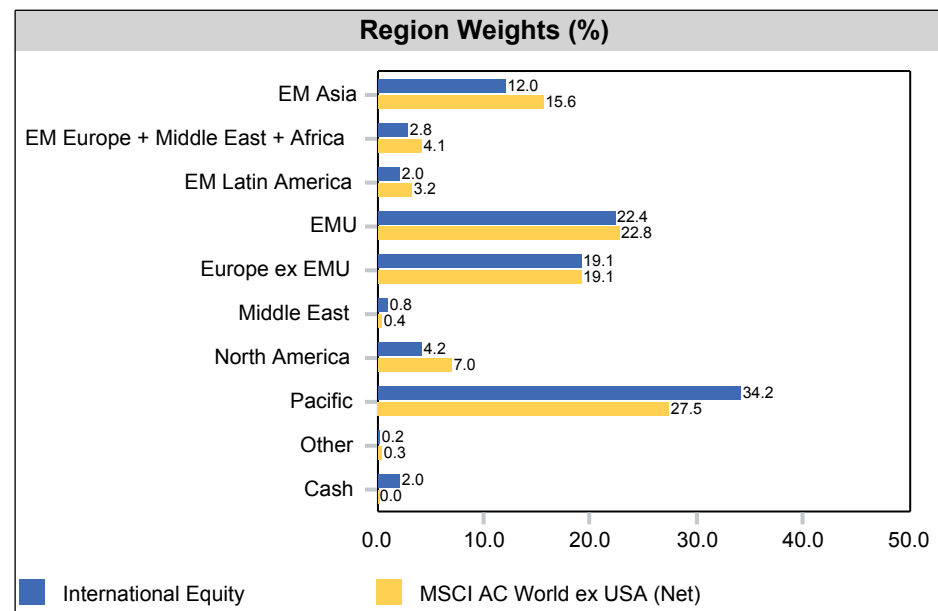


International Equity vs. MSCI AC World ex USA (Net)

Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	36,981	67,766
Median Mkt. Cap (\$M)	2,062	7,982
Price/Earnings ratio	13.91	13.96
Price/Book ratio	2.18	2.23
5 Yr. EPS Growth Rate (%)	10.61	9.73
Current Yield (%)	3.12	3.40
Number of Stocks	5,274	2,206



Top Ten Equity Holdings			
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)
CASH	2.05	0.00	2.05
Samsung Electronics Co Ltd	1.04	0.93	0.11
Tencent Holdings LTD	0.80	1.23	-0.43
Alibaba Group Holding Ltd	0.75	1.15	-0.40
Nestle SA, Cham Und Vevey	0.75	1.52	-0.77
Taiwan Semicon Manufctrng Co Ltd	0.59	0.91	-0.32
Novartis AG	0.48	0.95	-0.47
Roche Holding AG	0.47	0.95	-0.48
Toyota Motor Corp	0.38	0.68	-0.30
Royal Dutch Shell PLC	0.35	0.69	-0.34
% of Portfolio	7.66	9.01	-1.35



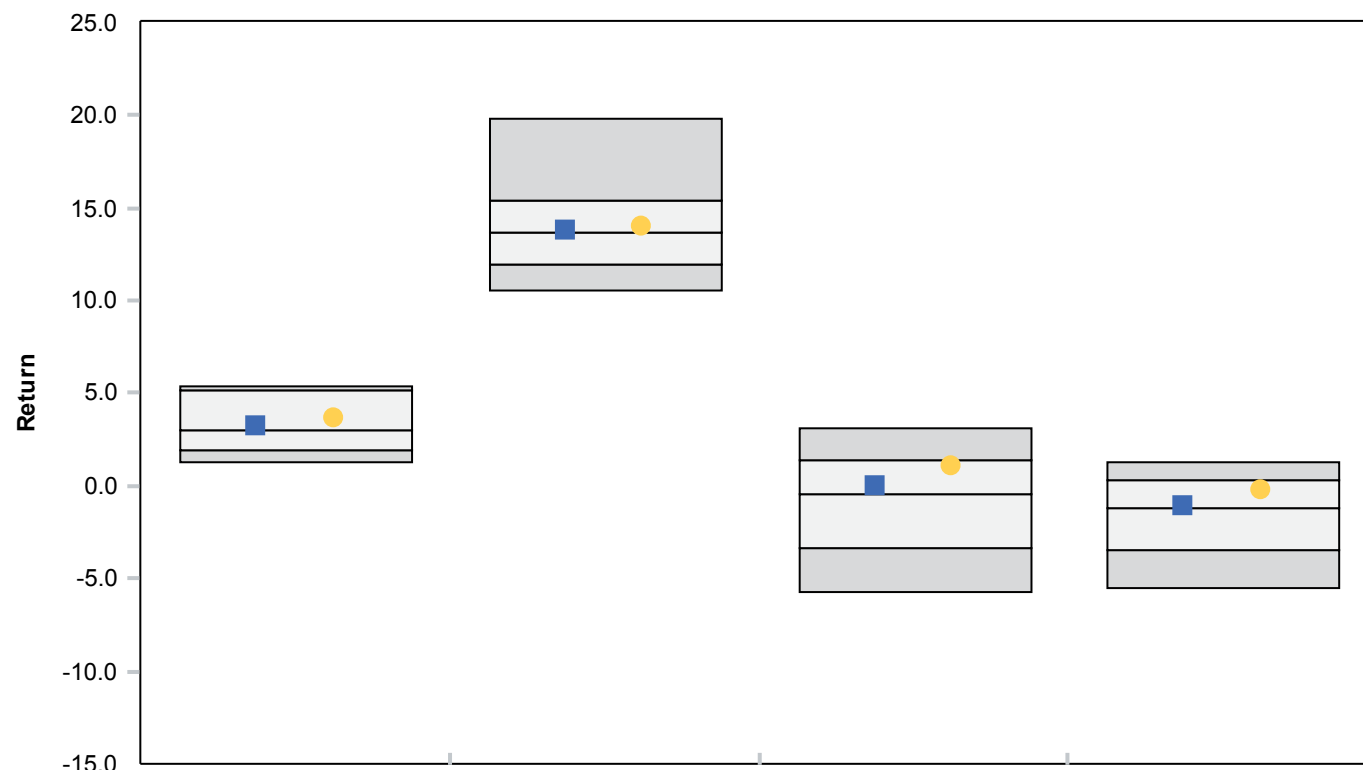
International Equity vs. MSCI AC World ex USA (Net)

Buy-and-Hold Portfolio	2.58
Portfolio Trading	-0.41
Actual Return	2.17
Benchmark Return	2.98
Actual Active Return	-0.81
Stock Selection	-0.68
Sector Selection	-0.03
Interaction	0.13
Total Selection	-0.59
Portfolio Trading	-0.41
Benchmark Trading	-0.18
Active Trading Impact	-0.23
Buy & Hold Active Return	-0.81

	Allocation-04/01/2019		Performance-1 Quarter Ending June 30, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	6.36	7.05	1.22	1.02	0.01	0.01	0.00	0.03
Consumer Discretionary	12.20	11.13	1.16	4.06	-0.32	0.01	-0.03	-0.34
Consumer Staples	7.66	9.92	0.89	2.54	-0.16	0.01	0.04	-0.11
Energy	5.06	7.41	0.22	0.62	-0.03	0.06	0.01	0.04
Financials	16.70	21.61	3.64	4.57	-0.20	-0.07	0.05	-0.22
Health Care	7.44	8.38	1.73	1.24	0.04	0.02	0.00	0.05
Industrials	16.37	11.68	3.81	5.40	-0.19	0.10	-0.07	-0.16
Information Technology	9.69	8.38	5.35	4.20	0.10	0.01	0.01	0.12
Materials	7.75	7.63	2.39	3.06	-0.05	0.00	0.00	-0.05
Real Estate	7.27	3.47	1.92	-1.55	0.12	-0.18	0.13	0.07
Utilities	2.90	3.34	2.62	2.64	0.00	0.00	0.00	0.00
Other	0.03	0.00	1.20	0.00	0.00	0.00	0.00	0.00
Cash	0.57	0.00	0.00	0.00	0.00	-0.02	0.00	-0.02
Total	100.00	100.00	2.58	3.16	-0.68	-0.03	0.13	-0.59



## IM International Large Cap Core Equity (MF)



■ Vanguard Developed Markets Index Fund  
● MSCI EAFE (net)

5th Percentile  
1st Quartile  
Median  
3rd Quartile  
95th Percentile

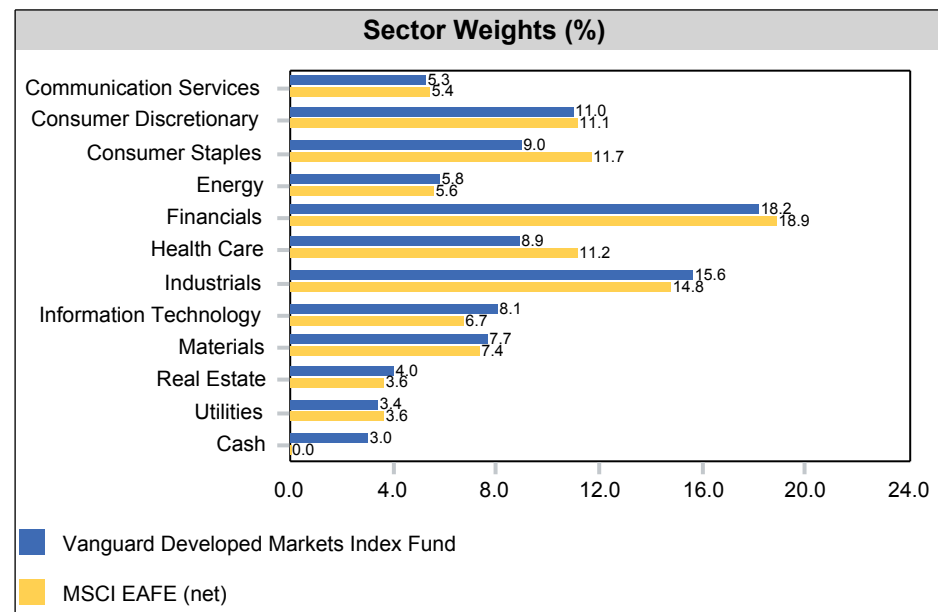
Current Quarter	Year To Date	Trailing 12-months	Fiscal Year To Date
3.27 (40)	13.76 (48)	-0.02 (46)	-1.10 (49)
3.68 (34)	14.03 (46)	1.08 (28)	-0.27 (37)
5.39	19.86	3.13	1.26
5.11	15.36	1.34	0.31
3.03	13.66	-0.39	-1.15
1.96	11.95	-3.35	-3.52
1.26	10.50	-5.71	-5.54
Population	86	81	84

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.  
Returns are net of fees and are expressed as percentages.  
3.28

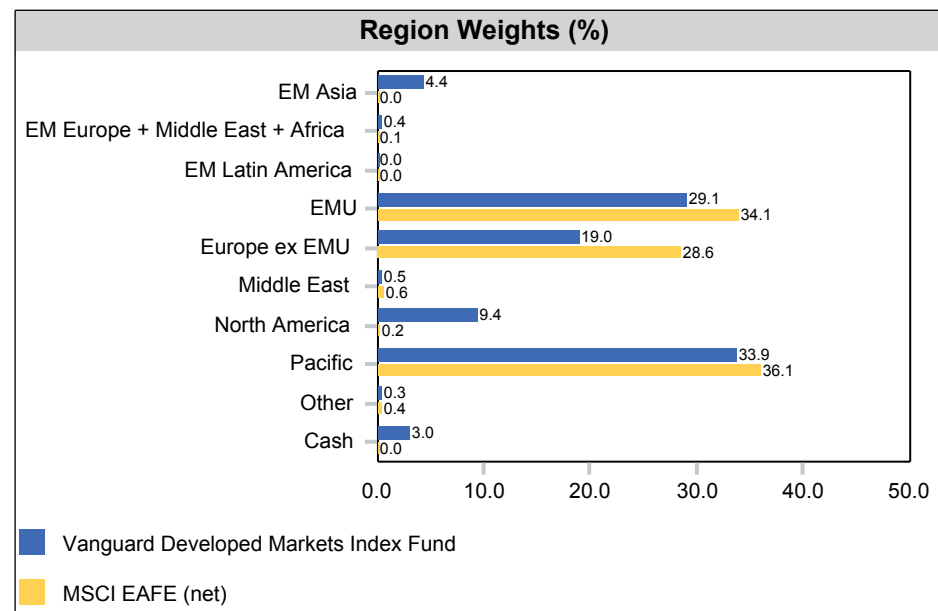


Vanguard Developed Markets Index Fund vs. MSCI EAFE (net)

Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	51,232	64,588
Median Mkt. Cap (\$M)	1,623	10,228
Price/Earnings ratio	14.39	14.84
Price/Book ratio	2.16	2.26
5 Yr. EPS Growth Rate (%)	8.80	8.06
Current Yield (%)	3.32	3.58
Number of Stocks	3,934	923



Top Ten Equity Holdings			
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)
CASH	3.03	0.00	3.03
Nestle SA, Cham Und Vevey	1.73	2.27	-0.54
Novartis AG	1.12	1.42	-0.30
Roche Holding AG	1.10	1.42	-0.32
Samsung Electronics Co Ltd	1.00	0.00	1.00
Toyota Motor Corp	0.87	1.01	-0.14
Royal Dutch Shell PLC	0.81	1.04	-0.23
TOTAL SA	0.76	0.95	-0.19
SAP SE	0.75	0.97	-0.22
AIA Group Ltd	0.73	0.93	-0.20
% of Portfolio	11.90	10.01	1.89



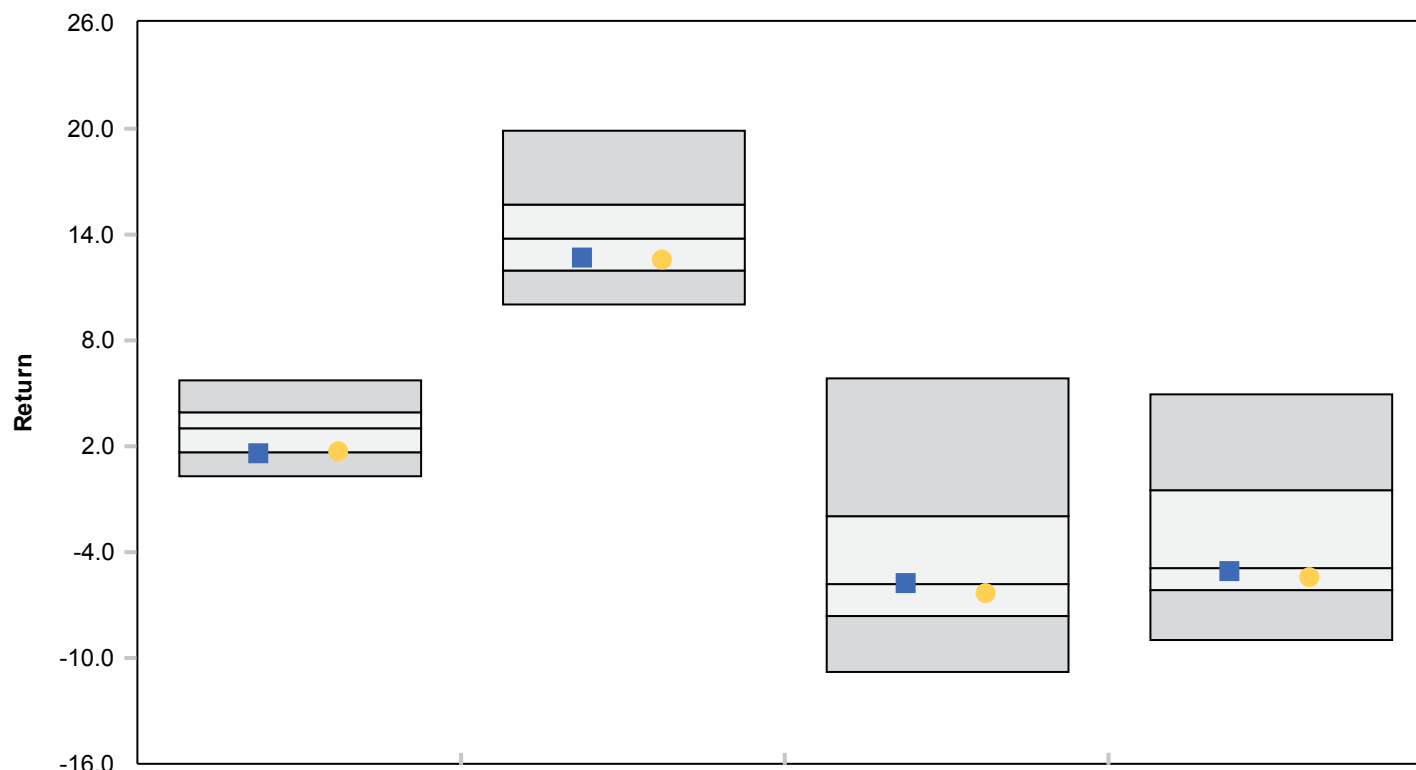
Vanguard Developed Markets Index Fund vs. MSCI EAFE (net)

Buy-and-Hold Portfolio	3.74
Portfolio Trading	-0.47
Actual Return	3.27
Benchmark Return	3.68
Actual Active Return	-0.41
Stock Selection	-0.28
Sector Selection	0.13
Interaction	-0.03
Total Selection	-0.18
Portfolio Trading	-0.47
Benchmark Trading	-0.24
Active Trading Impact	-0.24
Buy & Hold Active Return	-0.41

	Allocation-04/01/2019		Performance-1 Quarter Ending June 30, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	5.46	5.42	3.36	4.04	-0.04	0.00	0.00	-0.04
Consumer Discretionary	11.30	10.96	5.09	6.31	-0.13	0.01	0.00	-0.13
Consumer Staples	9.37	11.84	3.00	2.30	0.08	0.04	-0.02	0.11
Energy	6.22	5.85	0.39	0.52	-0.01	-0.01	0.00	-0.02
Financials	18.77	18.91	4.68	4.68	0.00	0.00	0.00	0.00
Health Care	9.26	11.27	1.68	2.11	-0.05	0.04	0.01	0.00
Industrials	15.76	14.36	5.13	6.08	-0.14	0.03	-0.01	-0.12
Information Technology	8.09	6.33	6.28	6.62	-0.02	0.05	-0.01	0.02
Materials	7.96	7.46	3.59	4.05	-0.03	0.00	0.00	-0.04
Real Estate	4.28	3.87	-0.80	-2.07	0.05	-0.02	0.01	0.03
Utilities	3.52	3.73	2.05	1.83	0.01	0.00	0.00	0.01
Other	0.01	0.00	1.20	0.00	0.00	0.00	0.00	0.00
Total	100.00	100.00	3.74	3.92	-0.28	0.13	-0.03	-0.18



IM International Small Cap Core Equity (SA+CF)



■ iShares MSCI EAFE Small-Cap ETF  
● MSCI EAFE Small Cap (net)

	Current Quarter	Year To Date	Trailing 12-months	Fiscal Year To Date
	1.57 (79)	12.59 (63)	-5.80 (51)	-5.11 (55)
	1.71 (74)	12.55 (64)	-6.35 (62)	-5.52 (66)
5th Percentile	5.77	19.86	5.89	4.96
1st Quartile	3.87	15.75	-1.92	-0.49
Median	3.04	13.77	-5.80	-4.92
3rd Quartile	1.64	11.97	-7.62	-6.17
95th Percentile	0.32	9.99	-10.75	-8.94
Population	42	42	41	42

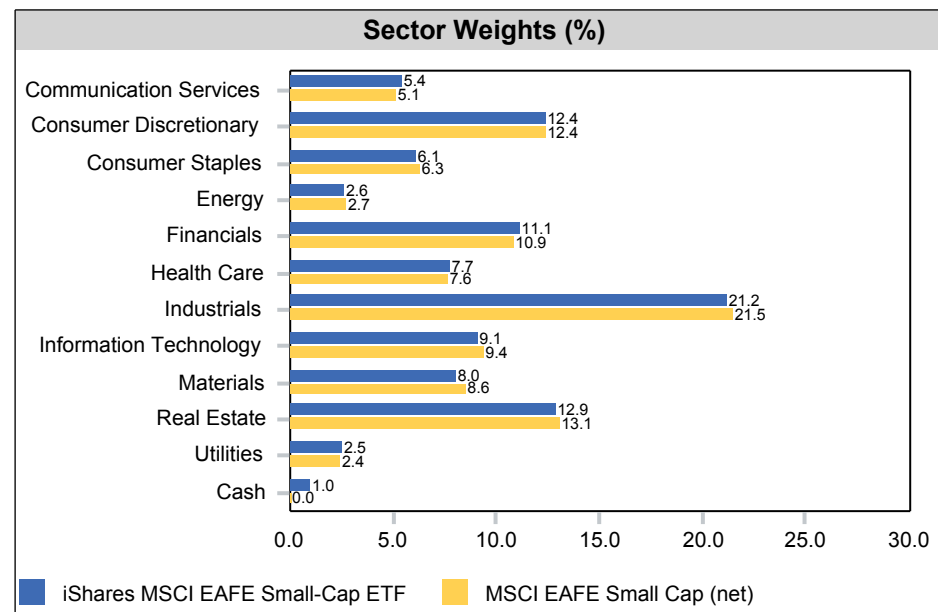
Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.  
Returns are net of fees and are expressed as percentages.  
3.31



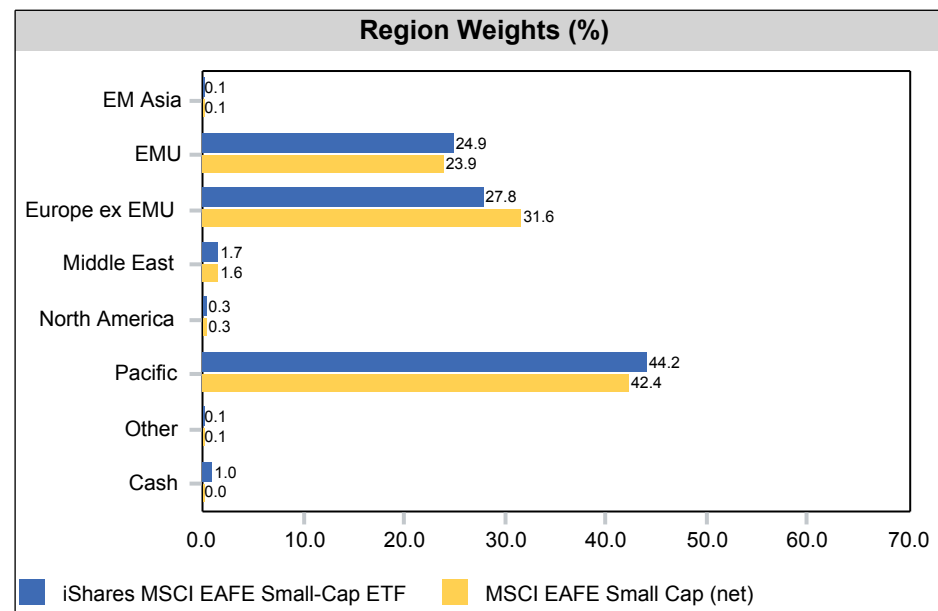


iShares MSCI EAFE Small-Cap ETF vs. MSCI EAFE Small Cap (net)

Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	2,600	2,573
Median Mkt. Cap (\$M)	1,354	1,016
Price/Earnings ratio	14.31	14.42
Price/Book ratio	2.16	2.15
5 Yr. EPS Growth Rate (%)	11.35	10.93
Current Yield (%)	2.96	2.97
Number of Stocks	1,661	2,352



Top Ten Equity Holdings			
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)
CASH	0.97	0.00	0.97
LEG Immobilien AG	0.34	0.31	0.03
Rightmove PLC	0.32	0.26	0.06
Logitech International SA, Apples	0.31	0.28	0.03
Hiscox Ltd	0.29	0.27	0.02
GN Store Nord A/S	0.29	0.26	0.03
Galapagos NV	0.26	0.24	0.02
InterXion Holding NV	0.26	0.24	0.02
Orpea, Puteaux	0.26	0.24	0.02
Intermediate Capital Group PLC	0.26	0.22	0.04
% of Portfolio	3.56	2.32	1.24



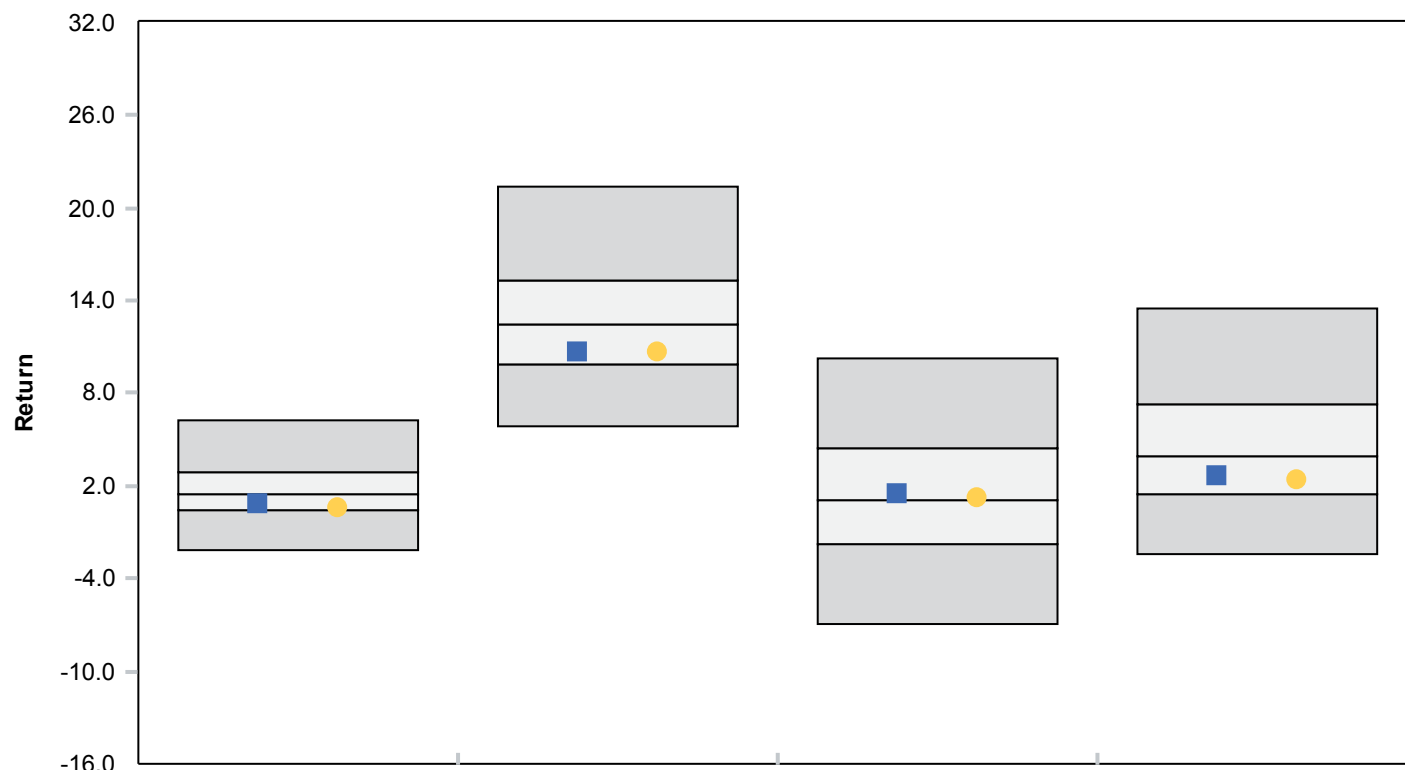
iShares MSCI EAFE Small-Cap ETF vs. MSCI EAFE Small Cap (net)

Buy-and-Hold Portfolio	2.15
Portfolio Trading	-0.57
Actual Return	1.57
Benchmark Return	1.71
Actual Active Return	-0.13
Stock Selection	0.07
Sector Selection	-0.01
Interaction	0.00
Total Selection	0.06
Portfolio Trading	-0.57
Benchmark Trading	-0.38
Active Trading Impact	-0.19
Buy & Hold Active Return	-0.13

	Allocation-04/01/2019		Performance-1 Quarter Ending June 30, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	4.87	4.74	2.60	3.11	-0.02	0.00	0.00	-0.02
Consumer Discretionary	12.81	12.91	-1.54	-1.66	0.01	0.00	0.00	0.02
Consumer Staples	6.49	6.53	-3.38	-2.56	-0.05	0.00	0.00	-0.05
Energy	2.59	2.69	-1.79	-3.74	0.05	0.01	0.00	0.06
Financials	11.53	11.21	1.57	1.61	-0.01	0.00	0.00	-0.01
Health Care	7.66	7.61	2.97	2.61	0.03	0.00	0.00	0.03
Industrials	21.97	21.30	3.14	2.92	0.05	0.01	0.00	0.05
Information Technology	9.44	9.89	7.82	8.20	-0.04	-0.03	0.00	-0.06
Materials	7.83	8.26	2.31	2.28	0.00	0.00	0.00	0.00
Real Estate	12.32	12.44	3.16	2.71	0.06	0.00	0.00	0.05
Utilities	2.43	2.36	3.08	3.35	-0.01	0.00	0.00	-0.01
Other	0.07	0.07	1.20	1.20	0.00	0.00	0.00	0.00
Cash	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	100.00	100.00	2.15	2.09	0.07	-0.01	0.00	0.06



IM Emerging Markets Equity (SA+CF+MF)



■ Fidelity Emerging Markets Index Fund  
● MSCI EM (net)

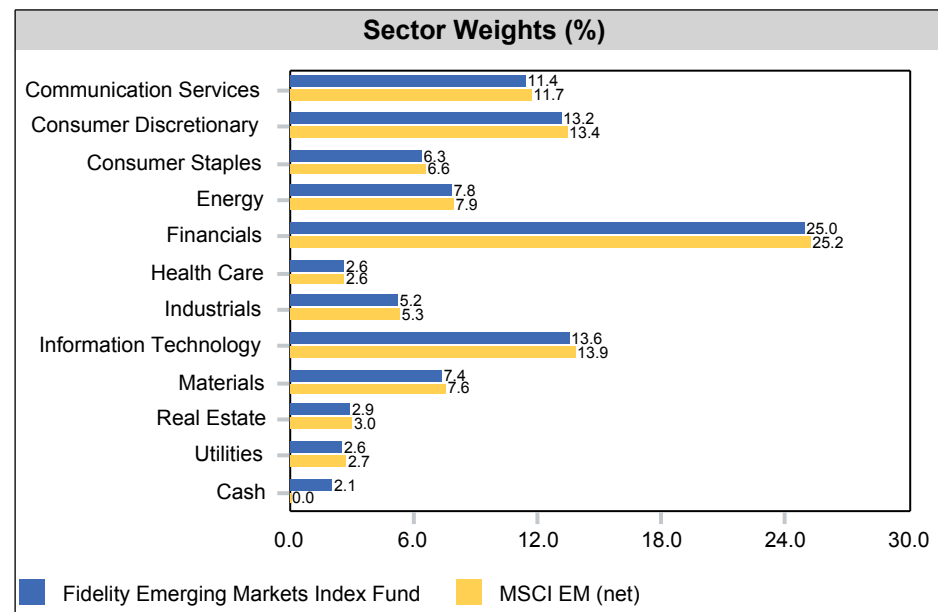
	Current Quarter	Year To Date	Trailing 12-months	Fiscal Year To Date
	0.86 (64)	10.69 (67)	1.41 (47)	2.57 (63)
	0.61 (72)	10.59 (68)	1.21 (50)	2.33 (66)
5th Percentile	6.23	21.33	10.20	13.49
1st Quartile	2.85	15.30	4.50	7.24
Median	1.41	12.41	1.11	3.96
3rd Quartile	0.47	9.81	-1.71	1.42
95th Percentile	-2.12	5.85	-6.94	-2.36
Population	1,314	1,301	1,250	1,269

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.  
Returns are net of fees and are expressed as percentages.  
3.34

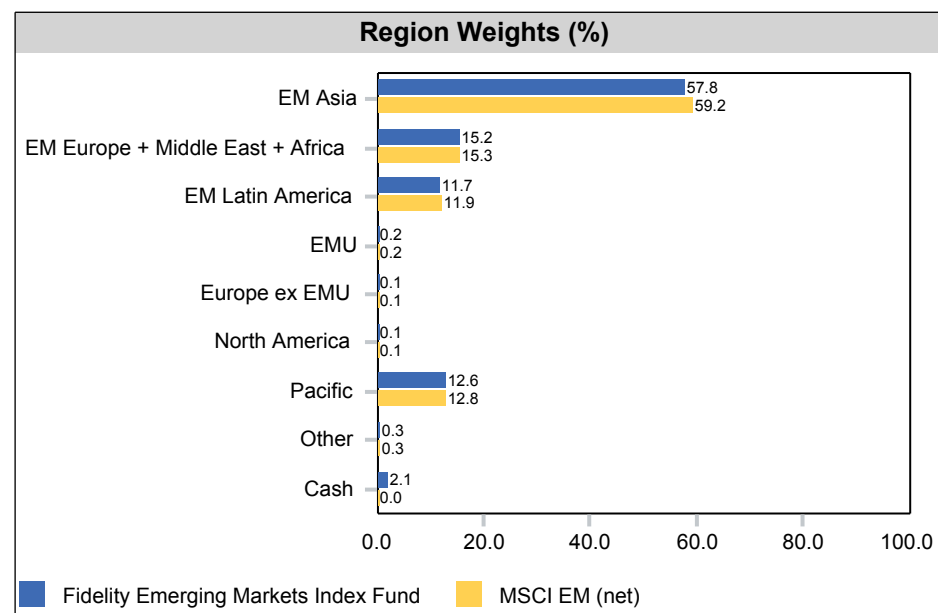


Fidelity Emerging Markets Index Fund vs. MSCI EM (net)

Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	78,971	81,469
Median Mkt. Cap (\$M)	5,426	5,440
Price/Earnings ratio	12.10	12.00
Price/Book ratio	2.27	2.28
5 Yr. EPS Growth Rate (%)	13.83	14.02
Current Yield (%)	3.01	3.01
Number of Stocks	1,266	1,194



Top Ten Equity Holdings			
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)
Tencent Holdings LTD	4.58	4.67	-0.09
Alibaba Group Holding Ltd	4.28	4.36	-0.08
Samsung Electronics Co Ltd	3.44	3.51	-0.07
Taiwan Semicon Manufctrng Co Ltd	3.37	3.44	-0.07
CASH	2.06	0.00	2.06
Naspers Ltd	1.88	1.92	-0.04
China Construction Bank Corp	1.46	1.50	-0.04
Ping An Insurance Group	1.21	1.21	0.00
China Mobile Ltd	0.99	1.01	-0.02
Housing Development Finance Corp	0.92	0.94	-0.02
% of Portfolio	24.19	22.56	1.63



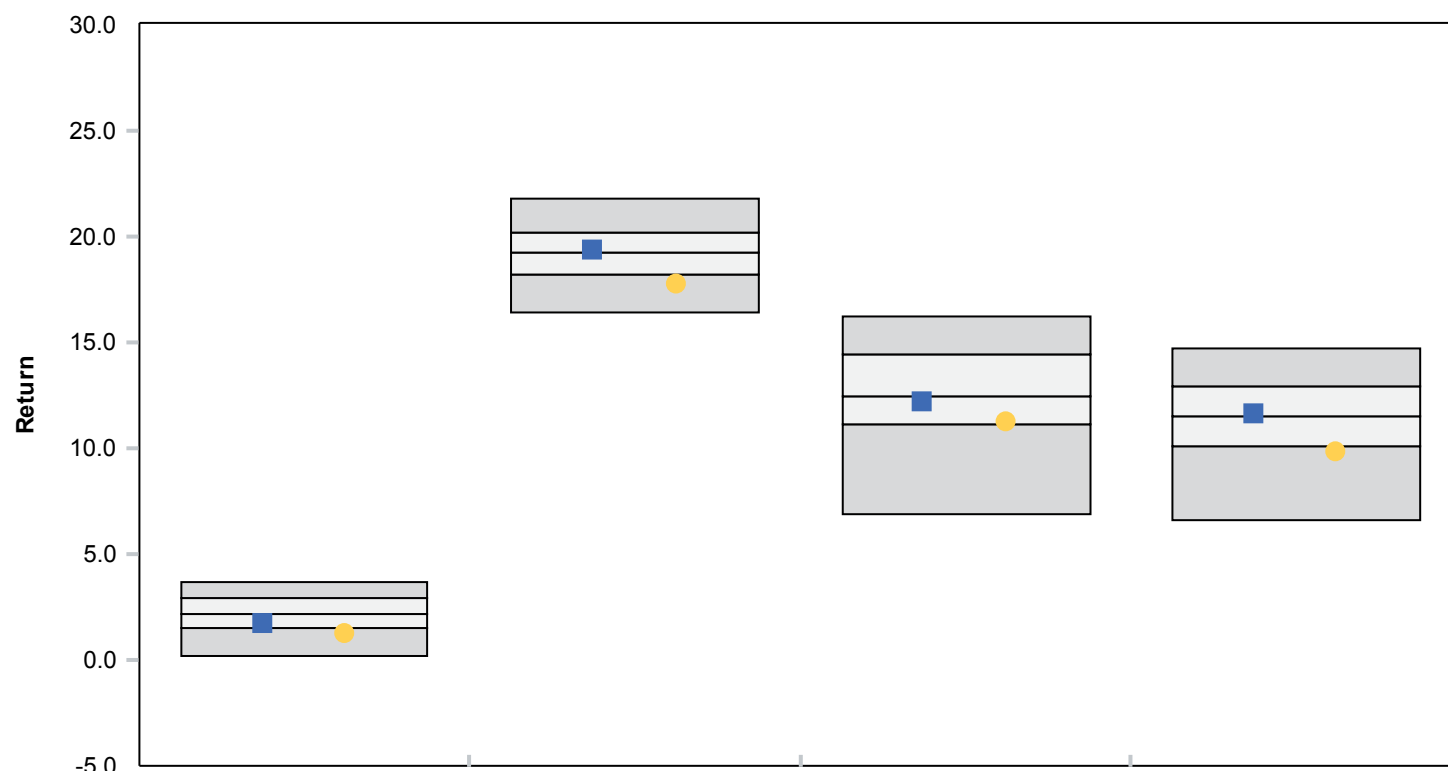
Fidelity Emerging Markets Index Fund vs. MSCI EM (net)

Buy-and-Hold Portfolio	0.76
Portfolio Trading	0.10
Actual Return	0.86
Benchmark Return	0.61
Actual Active Return	0.25
Stock Selection	0.00
Sector Selection	-0.03
Interaction	0.00
Total Selection	-0.03
Portfolio Trading	0.10
Benchmark Trading	-0.18
Active Trading Impact	0.28
Buy & Hold Active Return	0.25

	Allocation-04/01/2019		Performance-1 Quarter Ending June 30, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	11.91	12.28	-2.42	-2.39	0.00	0.01	0.00	0.01
Consumer Discretionary	12.99	13.38	-1.05	-1.07	0.00	0.01	0.00	0.01
Consumer Staples	6.18	6.41	3.37	3.40	0.00	-0.01	0.00	-0.01
Energy	7.84	8.07	1.39	1.31	0.01	0.00	0.00	0.01
Financials	23.43	24.19	3.96	3.97	0.00	-0.02	0.00	-0.03
Health Care	2.56	2.64	-6.28	-6.88	0.02	0.01	0.00	0.02
Industrials	5.20	5.38	0.48	0.31	0.01	0.00	0.00	0.01
Information Technology	14.07	14.56	0.32	0.32	0.00	0.00	0.00	0.00
Materials	7.09	7.36	-0.67	-0.58	-0.01	0.00	0.00	0.00
Real Estate	3.03	3.17	-0.26	-0.14	0.00	0.00	0.00	0.00
Utilities	2.45	2.57	3.52	4.15	-0.02	0.00	0.00	-0.02
Cash	3.26	0.00	0.00	0.00	0.00	-0.03	0.00	-0.03
Total	100.00	100.00	0.76	0.79	0.00	-0.03	0.00	-0.03



IM U.S. REIT (SA+CF)



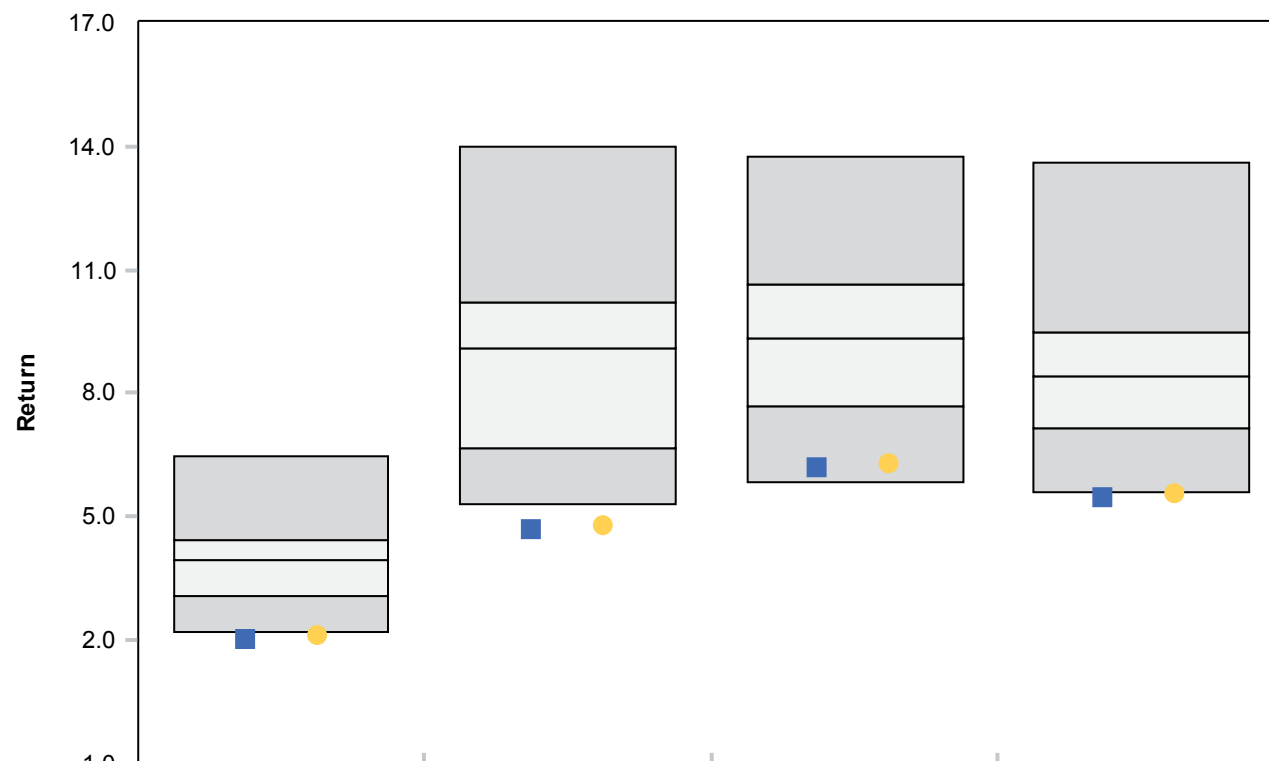
■ Vanguard Real Estate Index Fund  
● FTSE NAREIT Equity REIT Index

	Current Quarter	Year To Date	Trailing 12-months	Fiscal Year To Date
	1.73 (72)	19.31 (48)	12.21 (53)	11.63 (50)
	1.24 (82)	17.78 (77)	11.21 (74)	9.85 (82)
5th Percentile	3.69	21.76	16.23	14.75
1st Quartile	2.88	20.23	14.40	12.88
Median	2.14	19.26	12.41	11.55
3rd Quartile	1.48	18.25	11.16	10.12
95th Percentile	0.23	16.42	6.92	6.61
Population	43	43	43	43

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.  
Returns are net of fees and are expressed as percentages.  
3.37



IM U.S. Corporate Bonds (MF)



■ Vanguard Short-Term Corporate Bond Index Fund  
 ● Blmbg. Barc. U.S. Corporate 1-5 Year Index

5th Percentile  
 1st Quartile  
 Median  
 3rd Quartile  
 95th Percentile

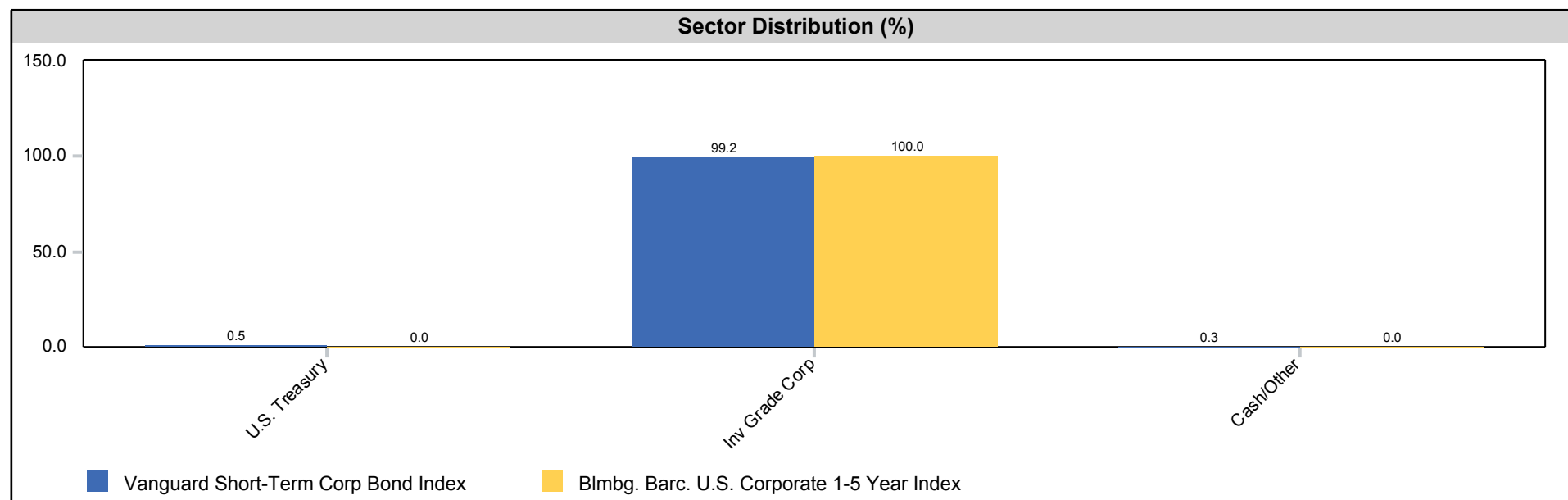
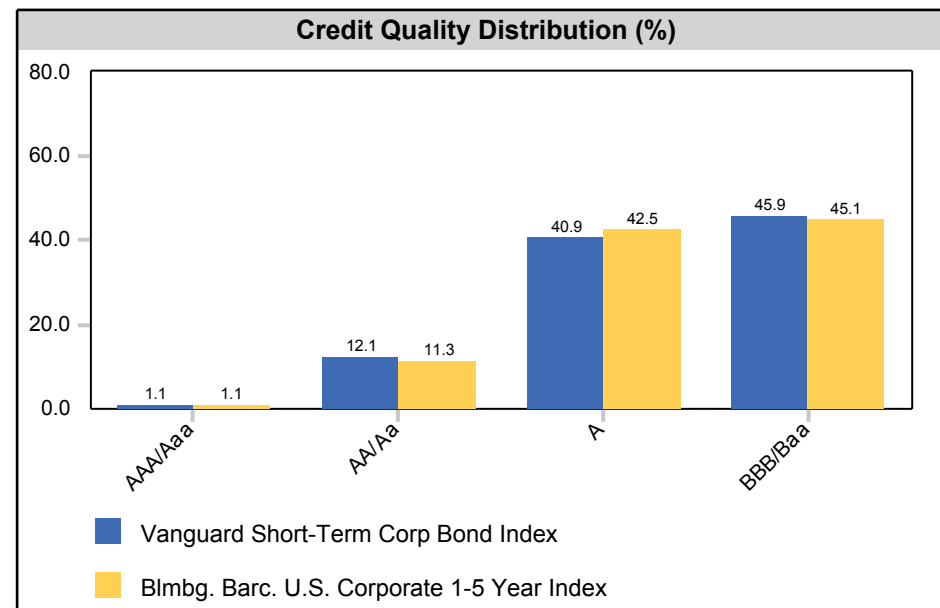
Current Quarter	Year To Date	Trailing 12-months	Fiscal Year To Date
1.99 (97)	4.70 (99)	6.19 (94)	5.47 (96)
2.09 (96)	4.75 (99)	6.30 (92)	5.55 (96)
6.47	14.00	13.74	13.60
4.42	10.23	10.63	9.50
3.96	9.09	9.35	8.41
3.08	6.68	7.66	7.17
2.22	5.31	5.85	5.59
Population	329	321	324

Parentheses contain percentile rankings.  
 Calculation based on monthly periodicity.  
 Returns are net of fees and are expressed as percentages.  
 3.38



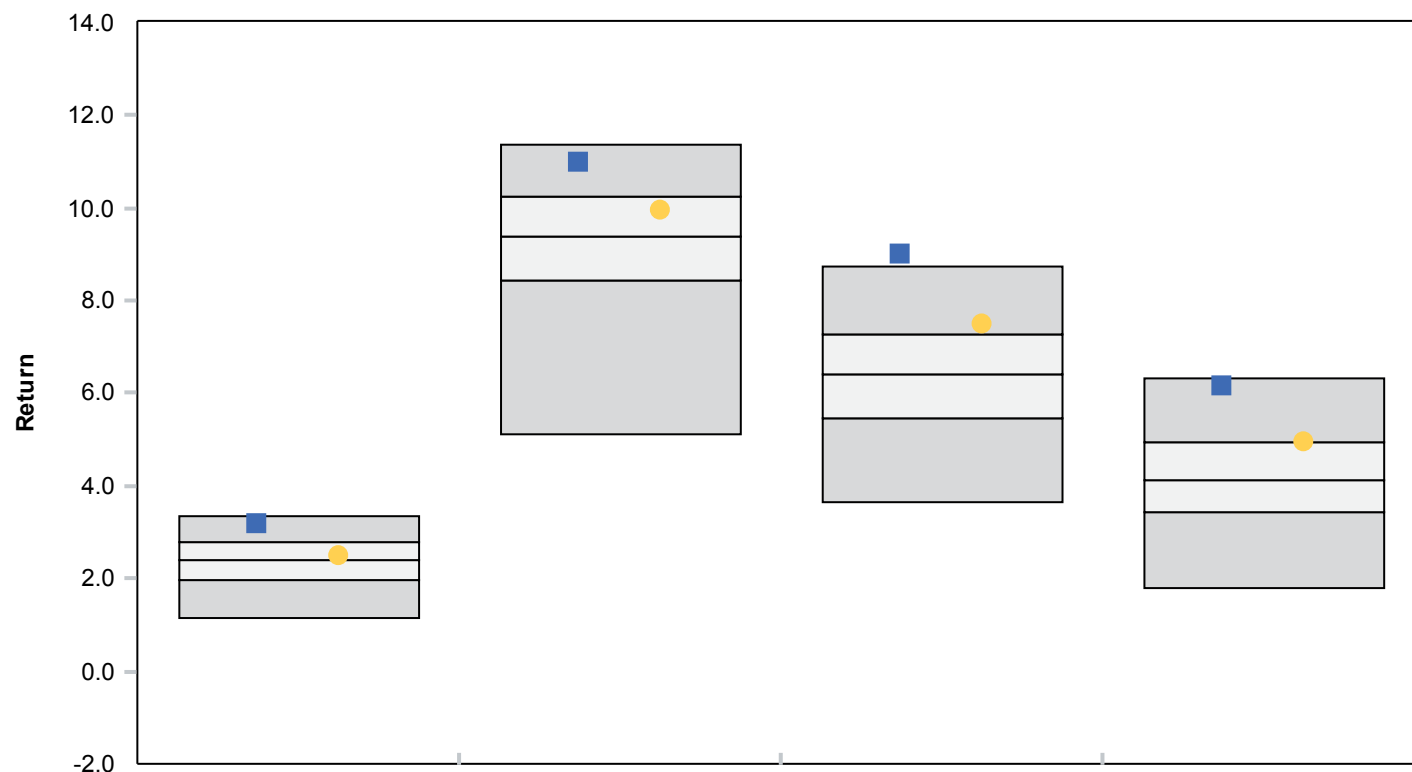
Vanguard Short-Term Corp Bond Index vs. Blmbg. Barc. U.S. Corporate 1-5 Year Index

Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	2.50	2.68
Yield To Maturity (%)	2.52	2.49
Avg. Maturity	3.00	2.93
Avg. Quality	A	A
Coupon Rate (%)	3.35	3.41





IM U.S. High Yield Bonds (MF)



■ Vanguard High-Yield Corporate Fund  
● Blmbg. Barc. U.S. Corp: High Yield

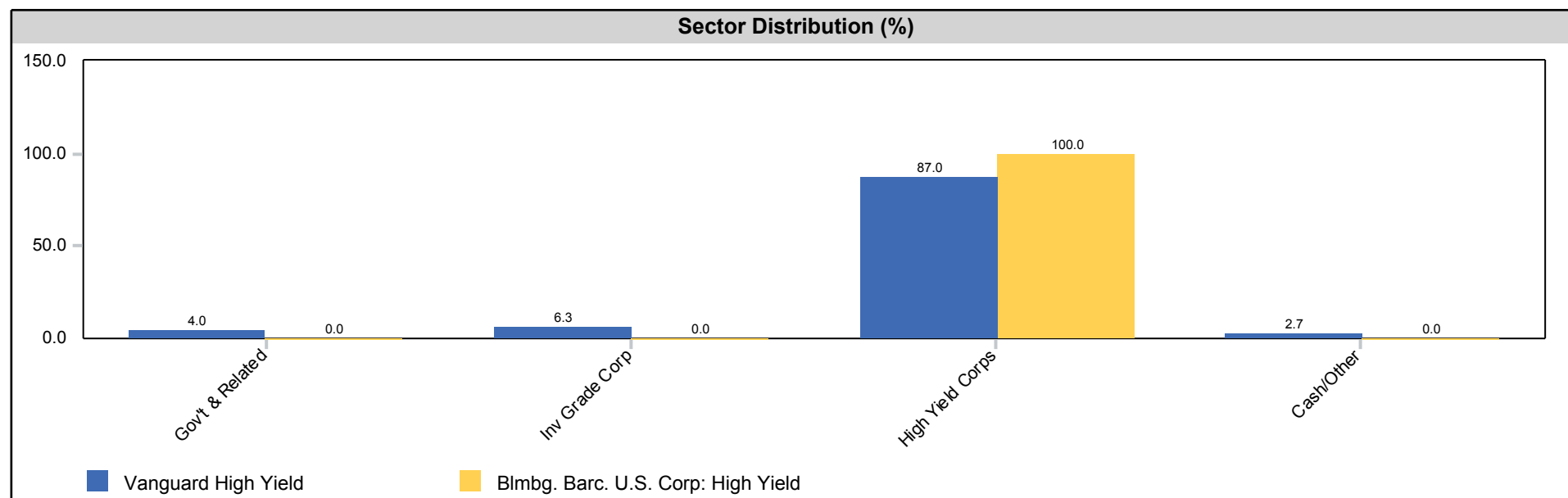
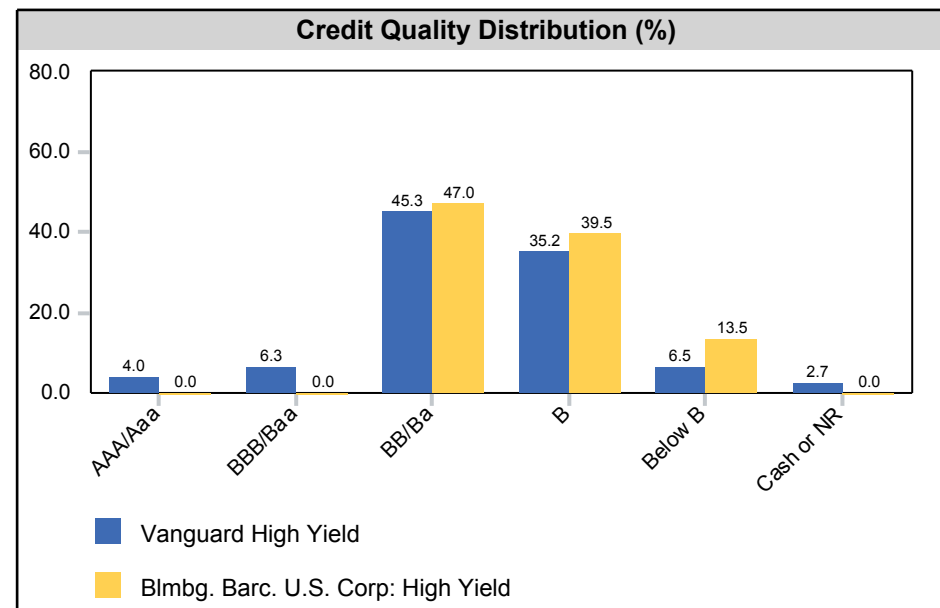
	Current Quarter	Year To Date	Trailing 12-months	Fiscal Year To Date
	3.15 (9)	10.98 (9)	8.98 (4)	6.15 (7)
	2.50 (42)	9.94 (35)	7.48 (22)	4.96 (26)
5th Percentile	3.36	11.35	8.75	6.32
1st Quartile	2.77	10.24	7.26	4.96
Median	2.40	9.37	6.41	4.14
3rd Quartile	1.98	8.46	5.45	3.45
95th Percentile	1.15	5.13	3.65	1.78
Population	702	698	676	684

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.  
Returns are net of fees and are expressed as percentages.  
3.40



Vanguard High Yield vs. Blmbg. Barc. U.S. Corp: High Yield

Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	3.30	3.23
Yield To Maturity (%)	5.40	6.34
Avg. Maturity	4.10	5.78
Avg. Quality	BB	B
Coupon Rate (%)	5.65	6.37



## IMPORTANT DISCLOSURES

---

PFM is the marketing name for a group of affiliated companies providing a range of services. All services are provided through separate agreements with each company. This material is for general information purposes only and is not intended to provide specific advice or a specific recommendation, as it was prepared without regard to any specific objectives or financial circumstances.

Investment advisory services are provided by PFM Asset Management LLC which is registered with the Securities and Exchange Commission under the Investment Advisers Act of 1940. The information contained is not an offer to purchase or sell any securities. Additional applicable regulatory information is available upon request.

PFM asset management professionals have exercised reasonable professional care in the preparation of this performance report. Information in this report is obtained from sources external to PFM's asset management business and is generally believed to be reliable and available to the public; however, we cannot guarantee its accuracy, completeness or suitability. We rely on the client's custodian for security holdings and market values. Transaction dates reported by the custodian may differ from money manager statements. While efforts are made to ensure the data contained herein is accurate and complete, we disclaim all responsibility for any errors that may occur. References to particular issuers are for illustrative purposes only, and are not intended to be recommendations or advice regarding such issuers.

It is not possible to invest directly in an index. The index returns shown throughout this material do not represent the results of actual trading of investor assets. Third-party providers maintain the indices shown and calculate the index levels and performance shown or discussed. Index returns do not reflect payment of any sales charges or fees an investor would pay to purchase the securities they represent. The imposition of these fees and charges would cause investment performance to be lower than the performance shown.

The views expressed within this material constitute the perspective and judgment of PFM's asset management business at the time of distribution and are subject to change. Any forecast, projection, or prediction of the market, the economy, economic trends, and equity or fixed-income markets are based upon certain assumptions and current opinion as of the date of issue, and are also subject to change. Some, but not all assumptions are noted in the report. Assumptions may or may not be proven correct as actual events occur, and results may depend on events outside of your or our control. Changes in assumptions may have a material effect on results. Opinions and data presented are not necessarily indicative of future events or expected performance.

For more information regarding PFM's services or entities, please visit [www.pfm.com](http://www.pfm.com).

© 2019 PFM Asset Management LLC. Further distribution is not permitted without prior written consent.

