



## City of Fort Lauderdale



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

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## Executive Summary

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The City of Fort Lauderdale (the “City”) OPEB Trust returned 0.78% (net of mutual fund fees) in the 3rd quarter of 2019, underperforming its policy benchmark return of 1.33% by 0.55%. Year-to-date, the portfolio returned 11.85%, underperforming its 14.63% benchmark return by 2.78%. Over the past year, the portfolio’s return of 3.27% has underperformed its 6.31% benchmark return by 3.04%. In dollar terms, the portfolio gained \$265,716 in return on investment over the quarter, and gained \$2,981,658 year-to-date.

The OPEB Pay Steps Plan was opened during the quarter and does not yet have a full quarter of performance. However, during the quarter the portfolio gained 4,331 in return on investment.

The S&P 500 Index (S&P) posted a return of 1.7%, in a quarter marked by an increase in volatility arising due to concerns around global slowdown as well as trade issues between the U.S. and China. The Fed cut rates twice this quarter, which is seen as a positive tailwind to equity markets. The broad equity markets outside of the United States, as measured by the MSCI ACWI ex U.S. Index, continued to lag their domestic equity counterparts and returned -1.80% for the third quarter with developed non-U.S. equity faring better than emerging markets. The fixed income market, as measured by the Bloomberg-Barclays U.S. Aggregate Index, returned 2.27% for the quarter.

Most importantly, the City’s portfolio continues to be invested in compliance with its investment policy statement guidelines with a focus on the long-term preservation and growth of purchasing power.



# Executive Summary

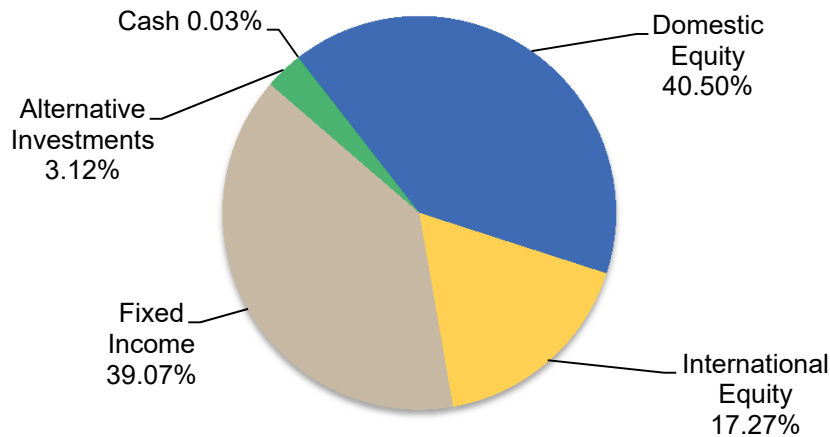
## Current Asset Allocation

Asset Class	Market Value	Pct (%)
Cash	\$11,934	0.0%
Domestic Equity	14,320,219	40.5%
International Equity	6,106,746	17.3%
Fixed Income	13,816,037	39.1%
Alternative Investments	1,103,345	3.1%
<b>Total</b>	<b>\$35,358,281</b>	<b>100.0%</b>

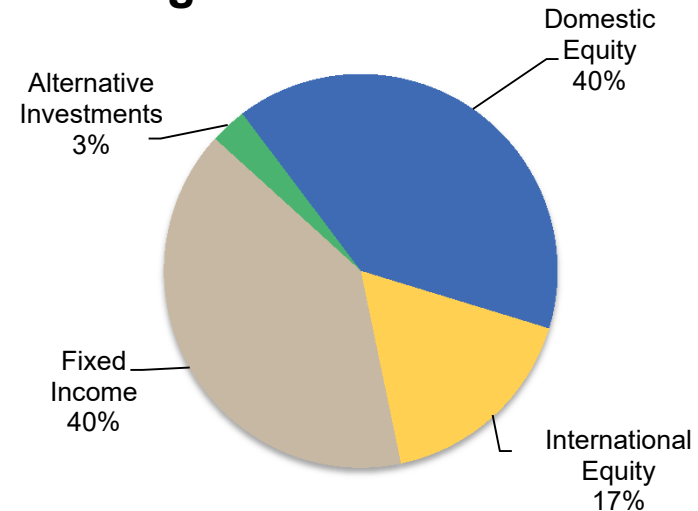
## \*Sample Target Allocation

Asset Class	Market Value	Pct (%)
Cash	-	0.0%
Domestic Equity	14,143,312	40.0%
International Equity	6,010,908	17.0%
Fixed Income	14,143,312	40.0%
Alternative Investments	1,060,748	3.0%
<b>Total</b>	<b>\$35,358,281</b>	<b>100%</b>

## Current Asset Allocation



## Target Asset Allocation



0.2 Data as of September 30, 2019. \*Based on the City's Benchmark: 40% Russell 3000 Index, 17% MSCI AC World ex USA Index, 3% FTSE NAREIT Equity REIT Index, and 40% Bloomberg Barclay's U.S Aggregate Index.



## **Markets & Economy**



## QUARTERLY MARKET SUMMARY

## Market Index Performance

As of September 30, 2019

	QTD	YTD	1 Year	3 Years	5 Years	7 Years	10 Years
<b>DOMESTIC EQUITY</b>							
S&P 500	1.70%	20.55%	4.25%	13.39%	10.84%	13.26%	13.24%
Russell 3000 Index	1.16%	20.09%	2.92%	12.83%	10.44%	13.00%	13.08%
Russell 1000 Value Index	1.36%	17.81%	4.00%	9.43%	7.79%	11.30%	11.46%
Russell 1000 Growth Index	1.49%	23.30%	3.71%	16.89%	13.39%	15.02%	14.94%
Russell Midcap Index	0.48%	21.93%	3.19%	10.69%	9.10%	12.57%	13.07%
Russell 2500 Index	-1.28%	17.72%	-4.04%	9.51%	8.57%	11.43%	12.22%
Russell 2000 Value Index	-0.57%	12.82%	-8.24%	6.54%	7.17%	9.35%	10.06%
Russell 2000 Index	-2.40%	14.18%	-8.89%	8.23%	8.19%	10.43%	11.19%
Russell 2000 Growth Index	-4.17%	15.34%	-9.63%	9.79%	9.08%	11.43%	12.25%
<b>INTERNATIONAL EQUITY</b>							
MSCI EAFE (Net)	-1.07%	12.80%	-1.34%	6.48%	3.27%	6.12%	4.90%
MSCI AC World Index (Net)	-0.03%	16.20%	1.38%	9.71%	6.65%	8.83%	8.35%
MSCI AC World ex USA (Net)	-1.80%	11.56%	-1.23%	6.33%	2.90%	5.01%	4.46%
MSCI AC World ex USA Small Cap (Net)	-1.19%	10.28%	-5.63%	4.64%	3.98%	6.22%	6.13%
MSCI EM (Net)	-4.25%	5.90%	-2.02%	5.97%	2.33%	2.41%	3.37%
<b>ALTERNATIVES</b>							
FTSE NAREIT Equity REIT Index	7.80%	26.96%	18.42%	7.36%	10.26%	10.03%	13.03%
FTSE EPRA/NAREIT Developed Index	4.87%	20.69%	14.11%	6.62%	7.78%	8.07%	9.50%
Bloomberg Commodity Index Total Return	-1.84%	3.13%	-6.57%	-1.50%	-7.18%	-8.15%	-4.32%
<b>FIXED INCOME</b>							
Blmbg. Barc. U.S. Aggregate	2.27%	8.52%	10.30%	2.92%	3.38%	2.72%	3.75%
Blmbg. Barc. U.S. Government/Credit	2.64%	9.72%	11.32%	3.16%	3.61%	2.86%	3.94%
Blmbg. Barc. Intermed. U.S. Government/Credit	1.37%	6.41%	8.17%	2.40%	2.68%	2.15%	3.05%
Blmbg. Barc. U.S. Treasury: 1-3 Year	0.58%	3.07%	4.43%	1.52%	1.33%	1.07%	1.18%
Blmbg. Barc. U.S. Corp: High Yield	1.33%	11.41%	6.36%	6.07%	5.37%	5.88%	7.94%
Credit Suisse Leveraged Loan index	0.92%	6.39%	3.10%	4.68%	4.11%	4.38%	5.38%
ICE BofAML Global High Yield Constrained (USD)	0.38%	9.99%	5.78%	5.57%	4.69%	5.48%	7.41%
Blmbg. Barc. Global Aggregate Ex USD	-0.58%	4.38%	5.34%	0.43%	0.88%	0.01%	1.28%
JPM EMBI Global Diversified	1.50%	12.99%	11.57%	4.61%	5.74%	4.83%	6.88%
<b>CASH EQUIVALENT</b>							
90 Day U.S. Treasury Bill	0.56%	1.81%	2.38%	1.54%	0.96%	0.70%	0.52%

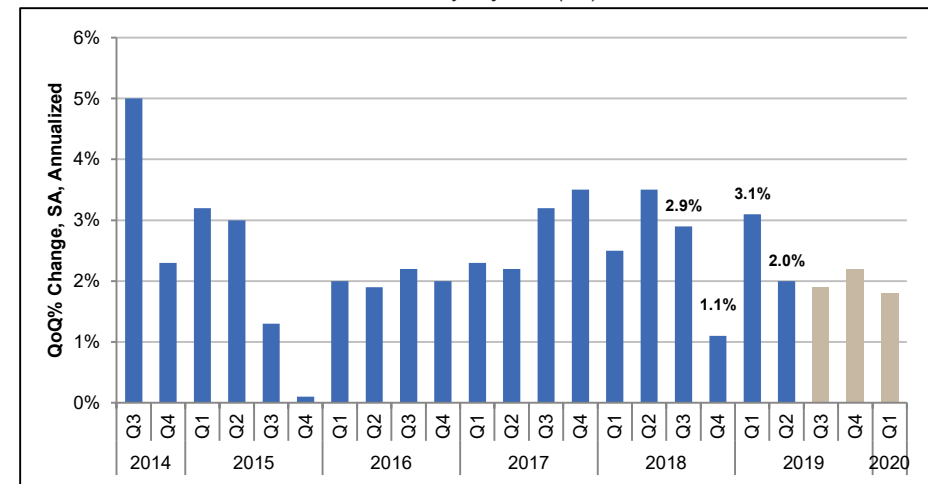
Source: Investment Metrics. Returns are expressed as percentages. Please refer to the last page of this document for important disclosures relating to this material.



## THE ECONOMY

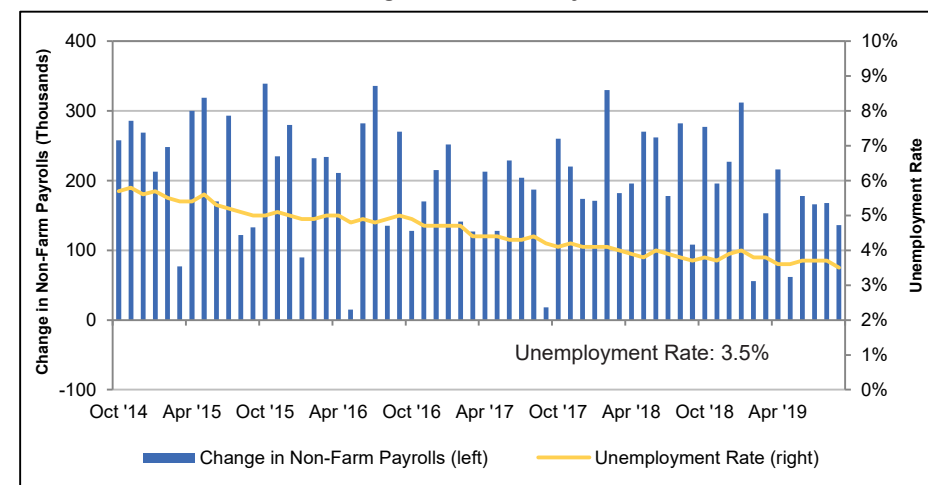
- In line with slowing growth expectations, U.S. Gross Domestic Product (GDP) for the third quarter of 2019 is projected to grow at an annual rate of 1.9% according to the Federal Reserve Bank of Atlanta GDPNow Forecast. This is down slightly from 2.0% in the second quarter of 2019.
- The U.S. labor market added 136,000 jobs in September, and July and August payrolls were revised up by a combined 45,000 for an average of 157,000 new jobs per month in the quarter. The unemployment rate dropped to 3.5% during the last month of the quarter, the lowest rate in 50 years. Hourly earnings rose a seasonally adjusted 2.9% from September 2018, down from 3.2% in the first two months of the quarter, but still higher than inflation. The labor-force participation rate held steady at 63.2%.
- U.S. manufacturing data was mixed in September, with contradictory readings from two major purchasing managers' index (PMI) surveys. The Institute for Supply Management (ISM) factory index slipped to 47.8 from 49.1 the previous month, while the IHS Markit U.S. Manufacturing PMI rose slightly to 51.1 from 50.3 in August. However, ISM and IHS Markit surveys agreed that the Services sector, which represents nearly 80% of the economy, is still expanding albeit at a slower rate than the previous two months.
- Inflation saw an uptick in the third quarter of 2019, although readings remain under the Federal Reserve's (Fed) 2% target. The core personal consumption expenditures (PCE) price index, the Fed's preferred measure of inflation, rose 1.8% over the 12 months ending in August 2019.
- The global economy in 2019 is set to grow at the slowest pace since the financial crisis according to the Organization for Economic Cooperation and Development (OECD). The OECD forecasts growth of 2.9% compared with earlier estimates of 4% for the year. The primary issue driving the downgraded forecast is continued uncertainty surrounding trade tensions highlighted by U.S. and China trade negotiations and Brexit.

**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**



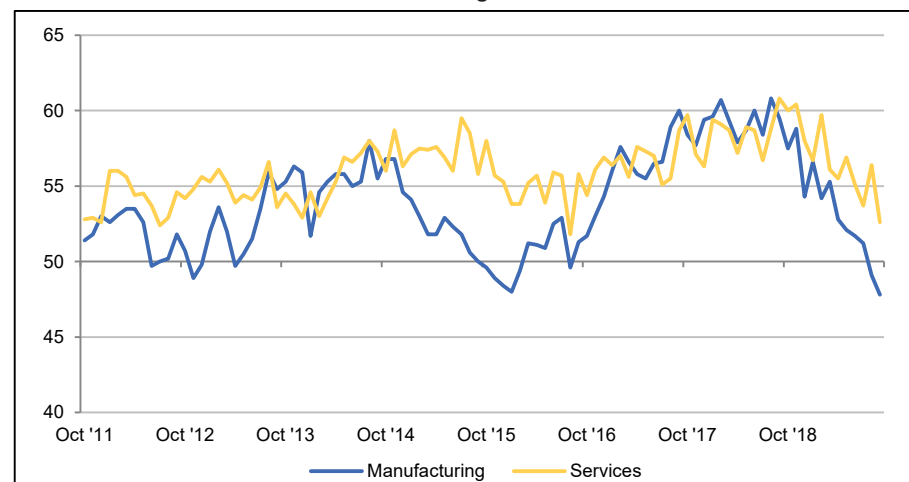
Source: Bloomberg.



## WHAT WE'RE WATCHING

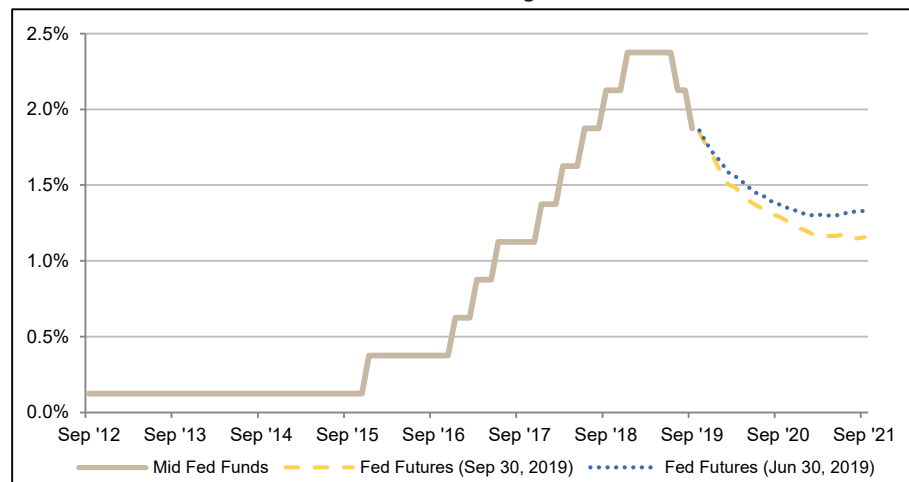
- Uncertainty surrounding the U.S. and China trade talks, and to a lesser degree Brexit, dominate the outlook for the fourth quarter of 2019. U.S. officials are set to resume negotiations with their Chinese counterparts in October, days before 30% tariffs are imposed on \$250 billion worth of Chinese goods as scheduled by the White House. Investors are hopeful of some resolution, although a broad trade deal is unexpected.
- In Europe, UK Prime Minister Boris Johnson has vowed to deliver Brexit by October 31, 2019. However, challenges in parliament to Johnson's approach have likely limited his options to reaching a deal by October 19, 2019, or requesting an extension from the European Union (EU). Recent developments indicate a deal may be nearly impossible because of firm demands on both sides pertaining to the Irish border, the most controversial element of negotiations thus far.
- Policy stimulus is ramping up with central banks around the world cutting interest rates. The European Central Bank (ECB) restarted Quantitative Easing (QE) in September and extended negative interest rates. China has continued its aggressive fiscal and monetary stimulus with cuts to banks' reserve ratios and the largest tax cuts in the country's history. Similar moves are being made by emerging central banks, with interest rate moves across a group of 37 developing economies showing net cuts each month of the third quarter.
- The Fed twice voted to decrease its benchmark interest rate by 0.25% in the third quarter, making a cut for the first time since the financial crisis. The Fed Funds target range now stands at 2.00%-2.25%. The Fed will make another decision on rates at its October 29-30 meeting. Investors have ramped up their expectations of a rate cut in October following the release of mixed economic data at the end of the third quarter. The market implied probability of a quarter-percentage point reduction sometime during the fourth quarter is over 90% in early October.

ISM Manufacturing & Services PMI



Source: Bloomberg.

Federal Funds Target Rate



Source: Bloomberg.



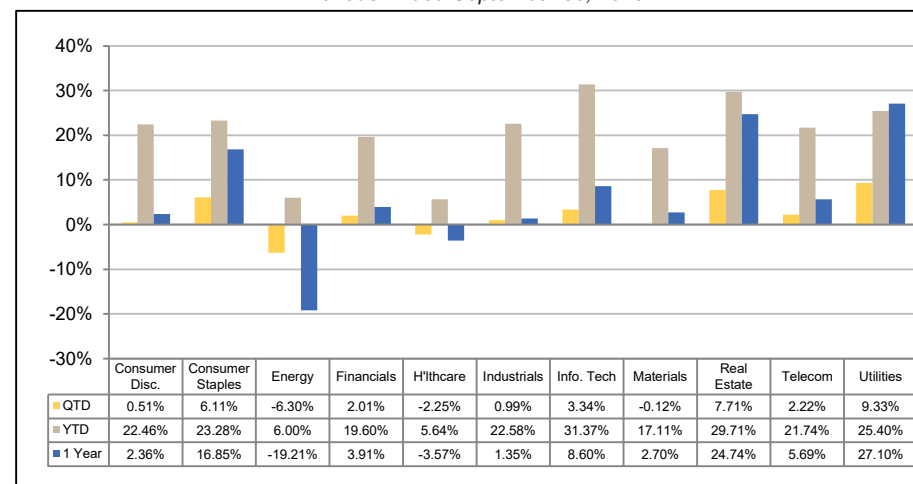


## DOMESTIC EQUITY

- The S&P 500 Index (S&P) posted a return of 1.7%, in a quarter marked by an increase in volatility arising due to concerns around global slowdown as well as trade issues between the U.S. and China. The Fed cut rates twice this quarter, which is seen as a positive tailwind to equity markets.
- Within the S&P, Utilities and Real Estate were the best performing sectors, returning 9.3% and 7.7% respectively, as investors chased dividend-yielding stocks for yield in light of lower rates. Energy was the worst performing sector, returning -6.3%, as the uncertainty of global demand and geopolitical risks weighed on the sector.
- Value stocks, as represented by the Russell 1000 Value Index, returned 1.4% and slightly underperformed Growth stocks, as represented by the Russell 1000 Growth Index, which returned 1.5%. During the month of September, Value stocks outperformed Growth stocks, resulting in outperformance of Value stocks within mid- and small-caps.
- Small-caps, as represented by the Russell 2000 Index, returned -2.4% during the quarter and lagged mid- and large-caps. Large-caps were the best performers for the quarter returning 1.4%, as represented by Russell 1000 Index, followed by mid-caps that returned 0.5%, as represented by the Russell Mid-Cap Index.
- For the quarter, according to FactSet Earnings Insight (as of October 4, 2019), the expected earnings growth for the third quarter of 2019 for the S&P 500 is -4.1%. This marks another quarter of expected decline in earnings growth following the negative earnings growth reported for the first and second quarters of 2019. The estimated revenue growth for the third quarter remains positive at 2.8%.

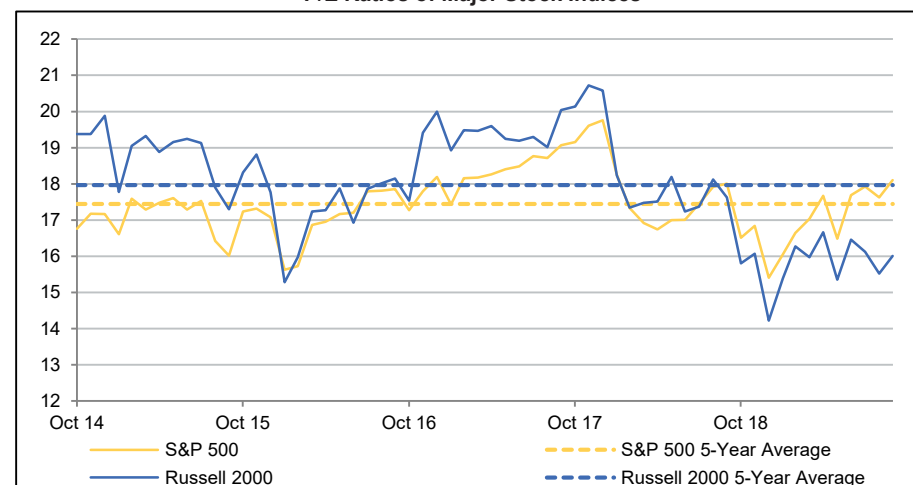
### S&P 500 Index Performance by Sector

Periods Ended September 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.



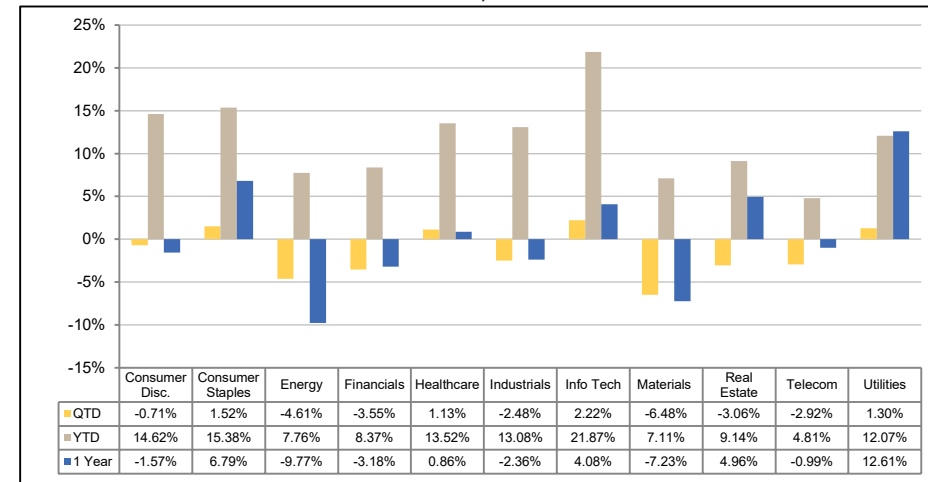
## QUARTERLY MARKET SUMMARY

## 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 -1.80% for the third quarter. Seven out of the 11 sectors returned negative returns with Materials leading the way at -6.48%, and followed by Energy and Financials returning -4.61% and -3.55%, respectively. Information Technology and Consumer Staples were the best performers returning 2.22% and 1.52%, respectively.
- Emerging markets, as represented by MSCI Emerging Market Index, lagged behind Developed ex U.S. markets, represented by MSCI EAFE Index, returning -4.3% versus -1.1% for the quarter. Emerging Market EMEA (Europe, Middle East and Africa) was the worst performer returning -7.0%, while Japan performed the best, returning 3.1%.
- Weak economic data coming out of Eurozone and China along with concerns of global slowdown have been headwinds to the performance of international equities this quarter. Recent strengthening of the U.S. dollar has also been a headwind to international equity performance.
- The ECB announced that it would restart the quantitative easing measures that it ended in December 2018. In addition, the ECB also announced a further rate cut of 10 basis points (bps) bringing the deposit rate to -0.5%. These actions are expected to stimulate economic growth in the Eurozone area where inflation has remained below ECB's target and its largest member, Germany, is heading into a recession.

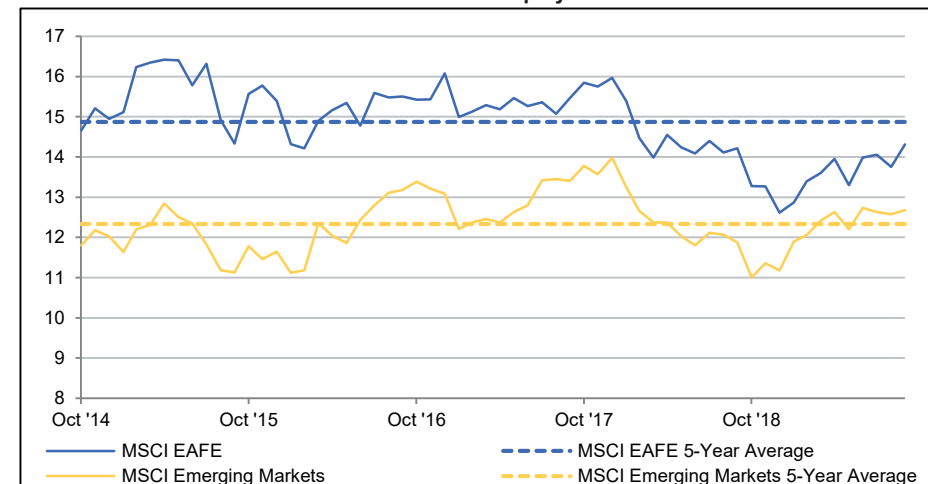
## MSCI ACWI ex-U.S. Sectors

Periods Ended September 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.

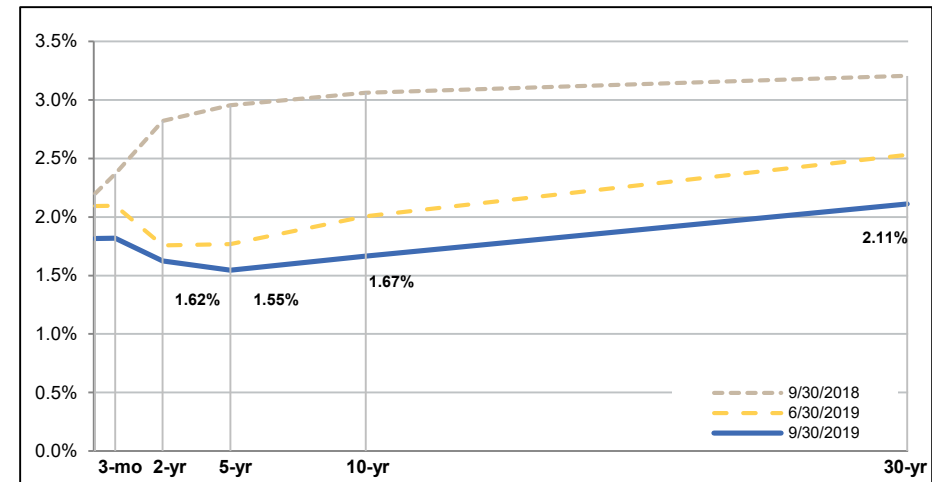


## QUARTERLY MARKET SUMMARY

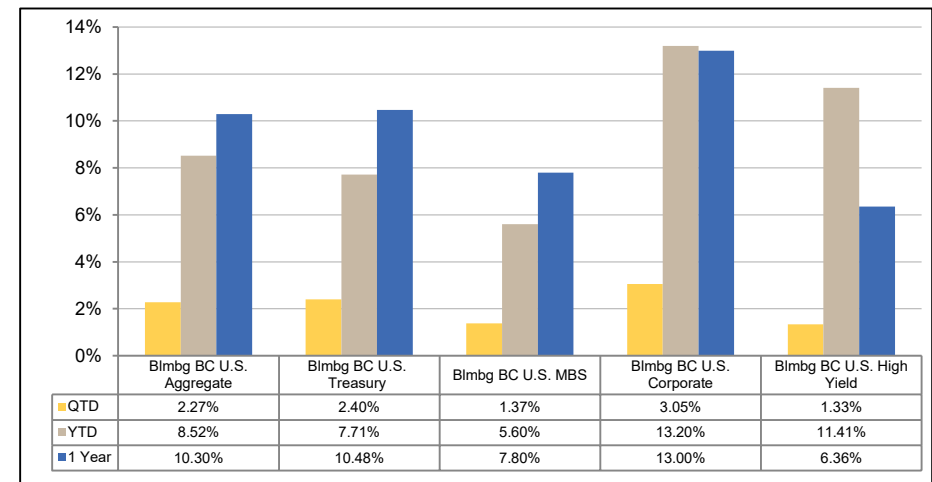
## FIXED INCOME

- The U.S. bond market, represented by the Bloomberg Barclays U.S. Aggregate (Aggregate) Index, rose 2.3% in the third quarter.
- Rates fell sharply during the quarter, particularly in August, on heightened concerns regarding the state of the economy and trade war impact. The front end dropped 0.3% on three- and six-month bills while 10 and 30 year maturity yields declined 0.3% and 0.4%, respectively.
- Investment-grade (IG) corporate spreads remained flat during the quarter. The Bloomberg Barclays U.S. Corporate Index rose 3.1%, bringing a year-to-date return just over 13%. High yield bonds, as represented by the Bloomberg Barclays U.S. Corporate High Yield (HY) Index, also performed well at 1.3% but lagged IG counterparts as CCC-rated continued to drag on returns. The Barclays index covering that quality was actually negative for the quarter at -1.8%.
- The fixed-rate mortgage market, as measured by the Bloomberg Barclays U.S. Mortgage-Backed Securities (MBS) Index, gained 1.4%, while the Bloomberg Barclays U.S. Agency CMBS Index (measuring commercial MBS) gained 1.8%.
- 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 Global Diversified index, rose 1.5%.

U.S. Treasury Yield Curve



Source: Bloomberg.

Returns for Fixed-Income Segments  
Periods Ended September 30, 2019

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



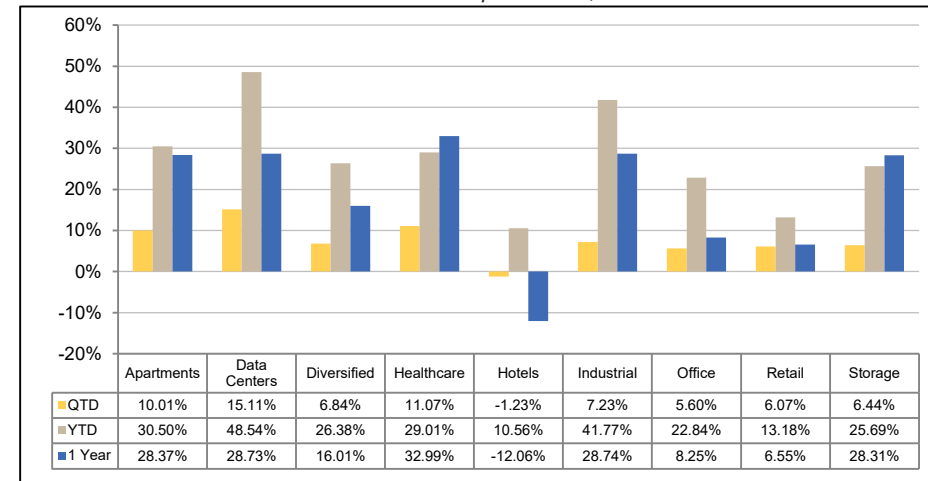
## QUARTERLY MARKET SUMMARY

## ALTERNATIVES

- REITs, as measured by the FTSE NAREIT Equity REITs Index, returned 7.8% in the third quarter, extending year-to-date gains to 27.0% as of the end of the quarter. Sector returns were largely positive with eight of nine sectors posting gains. Data Centers, Healthcare, and Apartments generated the strongest returns of 15.1%, 11.1%, and 10.0% respectively. Hotels was the only sector to post a loss over the quarter, returning -1.2%.
- Private real estate, as measured by the NCREIF Property Index, generated a total return of 1.5% in the second quarter, down from the 1.8% return generated during the first quarter. Industrial properties continue to be the top performing sector with a return of 3.4%. Retail properties continue to struggle with a return of -0.1% in the second quarter, down from 1.7% the previous quarter.
- Hedge funds generated negative returns in the third quarter with the HFRI Fund Weighted Composite Index returning -0.5%. The HFRI Equity Hedge (Total) Index returned -1.1% and the HFRI Fund of Funds Index returned -1.1%. Although HFRI Macro (Total) Index generated a positive return of 1.5%.
- In the second quarter, private equity funds led private capital fundraising by closing on \$109 billion, followed by \$29 billion by private real estate funds, \$25 billion raised by private debt funds, and \$19 billion raised by infrastructure funds. Private equity dry powder, which accounts for the bulk of private capital dry powder, has reached \$1.24 trillion in the second quarter. As of September 2018, private equity funds generated an average one-year initial rate of return (IRR) of 18.2% IRR and a five-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 Total Return Index, returned -1.8% in the third quarter, extending negative returns after the -1.2% return in the second quarter. The U.S. Dollar Index (DXY), posted a gain of 3.4% in the third quarter, following a loss of 1.2% in second quarter. Gold spot price ended the quarter at \$1,472 per ounce, up from \$1,409 per ounce at the end of the second quarter. The strength of the U.S. dollar has had the large negative impact on the spot performance of soft commodities, while trade tensions between the U.S. and China have had a positive impact on precious metals prices. West Texas Intermediate (WTI) Crude Oil spot price ended the quarter at \$54.07, down from \$58.20 at the end of the second quarter primarily due to strong supply and lowering global growth expectations.

## FTSE NAREIT Sectors

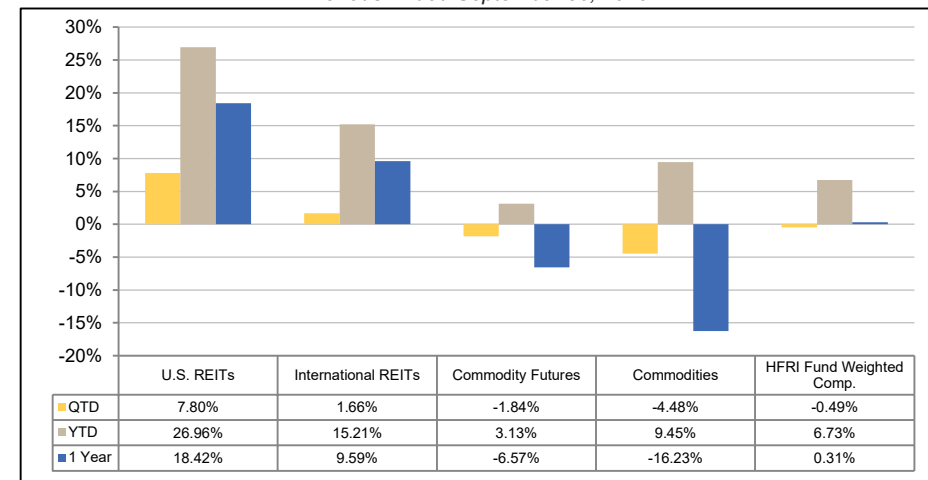
Periods Ended September 30, 2019



Source: Bloomberg.

## Returns for Alternative Assets

Periods Ended September 30, 2019



Sources: Bloomberg and Hedge Fund Research, Inc.



## **Total Fund - OPEB Trust**



## 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>33,896,318</b>	<b>100.00</b>	<b>0.78</b>	<b>11.85</b>	<b>3.27</b>	<b>3.27</b>
<b>Blended Benchmark</b>			<b>1.33</b>	<b>14.63</b>	<b>6.31</b>	<b>6.31</b>
<b>Domestic Equity</b>	<b>13,734,268</b>	<b>40.52</b>	<b>1.37</b>	<b>20.62</b>	<b>3.67</b>	<b>3.67</b>
Vanguard Total Stock Mkt Index Fund	1,225,000	3.61	N/A	N/A	N/A	N/A
<i>Russell 3000 Index</i>			1.16	20.09	2.92	2.92
Fidelity 500 Index Fund	5,157,678	15.22	1.69	20.55	4.24	4.24
Vanguard 500 Index Fund	5,156,708	15.21	1.69	20.54	4.22	4.22
<i>S&amp;P 500</i>			1.70	20.55	4.25	4.25
Vanguard Mid-Cap Value Index Fund	699,295	2.06	1.88	20.43	2.30	2.30
<i>Russell Midcap Value Index</i>			1.22	19.47	1.60	1.60
Vanguard Mid-Cap Growth Index Fund	787,392	2.32	-0.61	24.55	4.85	4.85
<i>Russell Midcap Growth Index</i>			-0.67	25.23	5.20	5.20
Vanguard Small Cap Index Fund	708,195	2.09	-1.45	17.78	-3.81	-3.81
<i>Russell 2000 Index</i>			-2.40	14.18	-8.89	-8.89
<b>International Equity</b>	<b>5,858,667</b>	<b>17.28</b>	<b>-2.59</b>	<b>9.83</b>	<b>-4.68</b>	<b>-4.68</b>
Vanguard Total Intl Stock Index Fund	650,000	1.92	N/A	N/A	N/A	N/A
<i>MSCI AC World ex USA (Net)</i>			-1.80	11.56	-1.23	-1.23
Vanguard Developed Markets Index Fund	2,838,174	8.37	-0.99	12.63	-2.08	-2.08
<i>MSCI EAFE (net)</i>			-1.07	12.80	-1.34	-1.34
iShares MSCI EAFE Small-Cap ETF	1,144,600	3.38	-0.30	12.26	-5.39	-5.39
<i>MSCI EAFE Small Cap (net)</i>			-0.44	12.05	-5.93	-5.93
Fidelity Emerging Markets Index Fund	1,225,893	3.62	-4.45	5.77	-2.00	-2.00
<i>MSCI EM (net)</i>			-4.25	5.90	-2.02	-2.02
<b>Real Estate</b>	<b>1,059,531</b>	<b>3.13</b>	<b>7.43</b>	<b>28.18</b>	<b>19.92</b>	<b>19.92</b>
Vanguard Real Estate Index Fund	1,059,531	3.13	7.40	28.14	19.89	19.89
<i>FTSE NAREIT Equity REIT Index</i>			7.80	26.96	18.42	18.42

Returns are net of fees.

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

Returns are expressed as percentages.

2.1



## Asset Allocation &amp; Performance

	Allocation		Performance(%)			
	Market Value (\$)	%	Current Quarter	Year To Date	Trailing 12-months	Fiscal Year To Date
<b>Fixed Income</b>	<b>13,232,431</b>	<b>39.04</b>	<b>1.60</b>	<b>6.64</b>	<b>7.70</b>	<b>7.70</b>
Vanguard Total Bond Mkt Index Fund	8,739,447	25.78	N/A	N/A	N/A	N/A
<i>Blmbg. Barc. U.S. Aggregate</i>			2.27	8.52	10.30	10.30
U.S. Government Securities	2,122,122	6.26	1.18	5.74	7.62	7.62
<i>Blmbg. Barc. U.S. Treasury: 1-3 Year</i>			0.58	3.07	4.43	4.43
Vanguard Short-Term Corporate Bond Index Fund	1,334,087	3.94	1.18	5.93	6.72	6.72
<i>Blmbg. Barc. U.S. Corporate 1-5 Year Index</i>			1.17	5.98	6.78	6.78
Vanguard High-Yield Corporate Fund	1,036,776	3.06	1.86	13.05	8.13	8.13
<i>Blmbg. Barc. U.S. Corp: High Yield</i>			1.33	11.41	6.36	6.36
<b>Cash Equivalent</b>	<b>11,420</b>	<b>0.03</b>	<b>0.46</b>	<b>1.71</b>	<b>2.35</b>	<b>2.35</b>
Wells Fargo 100% Treasury Money Market	11,420	0.03	0.47	1.85	2.41	2.41

Returns are net of fees.

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

Returns are expressed as percentages.



## Financial Reconciliation

Current Quarter	Market Value As of 07/01/2019	Net Flows	Return On Investment	Market Value As of 09/30/2019
Total Fund	27,342,180	6,288,422	265,716	33,896,318

YTD	Market Value As of 01/01/2019	Net Flows	Return On Investment	Market Value As of 09/30/2019
Total Fund	24,632,281	6,282,379	2,981,658	33,896,318

Fiscal Year To Date	Market Value As of 10/01/2018	Net Flows	Return On Investment	Market Value As of 09/30/2019
Total Fund	26,677,176	6,279,318	939,824	33,896,318

1 Year	Market Value As of 10/01/2018	Net Flows	Return On Investment	Market Value As of 09/30/2019
Total Fund	26,677,176	6,279,318	939,824	33,896,318





## Historical Hybrid Composition

Benchmark Allocation	Weight (%)
<b>Oct-2017</b>	
Russell 3000 Index	55.0
Blmbg. Barc. U.S. Aggregate	45.0
<b>Jul-2019</b>	
Russell 3000 Index	40.0
MSCI AC World ex USA (Net)	17.0
FTSE NAREIT Equity REIT Index	3.0
Blmbg. Barc. U.S. Aggregate	40.0



## **Total Fund - OPEB Post Retirement Pay Steps Plan**



## 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>1,461,963</b>	<b>100.00</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
Blended Benchmark			N/A	N/A	N/A	N/A
<b>Domestic Equity</b>	<b>585,951</b>	<b>40.08</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
Vanguard Total Stock Market Index	585,951	40.08	N/A	N/A	N/A	N/A
<i>Russell 3000 Index</i>			1.16	20.09	2.92	2.92
<b>International Equity</b>	<b>248,079</b>	<b>16.97</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
Vanguard Total International Stock Index Fund	248,079	16.97	N/A	N/A	N/A	N/A
<i>MSCI AC World ex USA (Net)</i>			-1.80	11.56	-1.23	-1.23
<b>Real Estate</b>	<b>43,814</b>	<b>3.00</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
Vanguard Real Estate Index Fund	43,814	3.00	N/A	N/A	N/A	N/A
<i>FTSE NAREIT Equity REIT Index</i>			7.80	26.96	18.42	18.42
<b>Fixed Income</b>	<b>583,606</b>	<b>39.92</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
Vanguard Total Bond Market Index	583,606	39.92	N/A	N/A	N/A	N/A
<i>Blmbg. Barc. U.S. Aggregate</i>			2.27	8.52	10.30	10.30
<b>Cash Equivalent</b>	<b>514</b>	<b>0.04</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
Wells Fargo 100% Treasury Money Market	514	0.04	N/A	N/A	N/A	N/A
<i>ICE BofAML 3 Month U.S. T-Bill</i>			0.56	1.81	2.38	2.38

Returns are net of fees.

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

Returns are expressed as percentages.

3.1



## Financial Reconciliation

Current Quarter	Market Value As of 07/01/2019	Net Flows	Return On Investment	Market Value As of 09/30/2019
Total Fund	-	1,457,632	4,331	1,461,963

YTD	Market Value As of 01/01/2019	Net Flows	Return On Investment	Market Value As of 09/30/2019
Total Fund	-	1,457,632	4,331	1,461,963

Fiscal Year To Date	Market Value As of 10/01/2018	Net Flows	Return On Investment	Market Value As of 09/30/2019
Total Fund	-	1,457,632	4,331	1,461,963

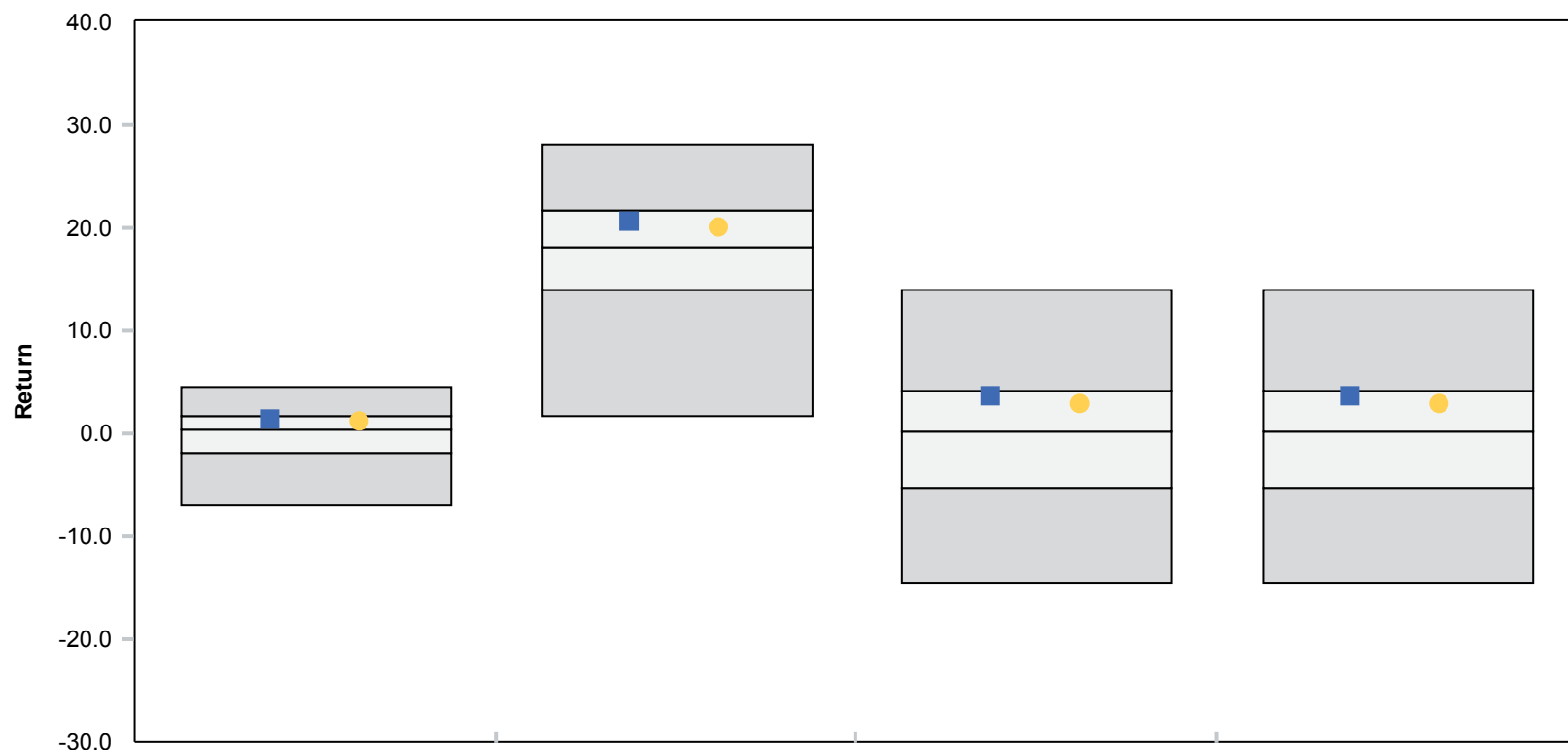
1 Year	Market Value As of 10/01/2018	Net Flows	Return On Investment	Market Value As of 09/30/2019
Total Fund	-	1,457,632	4,331	1,461,963



## **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	1.37 (33)	20.62 (32)	3.67 (29)	3.67 (29)
Russell 3000 Index	1.16 (37)	20.09 (37)	2.92 (34)	2.92 (34)
5th Percentile	4.55	28.20	13.98	13.98
1st Quartile	1.75	21.70	4.18	4.18
Median	0.37	18.14	0.13	0.13
3rd Quartile	-1.87	13.97	-5.27	-5.27
95th Percentile	-7.02	1.76	-14.49	-14.49
Population	9,357	9,188	9,074	9,074

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)	205,112	209,668
Median Mkt. Cap (\$M)	1,012	1,604
Price/Earnings ratio	20.55	20.43
Price/Book ratio	3.38	3.35
5 Yr. EPS Growth Rate (%)	15.41	15.73
Current Yield (%)	1.92	1.90
Number of Stocks	3,594	3,005

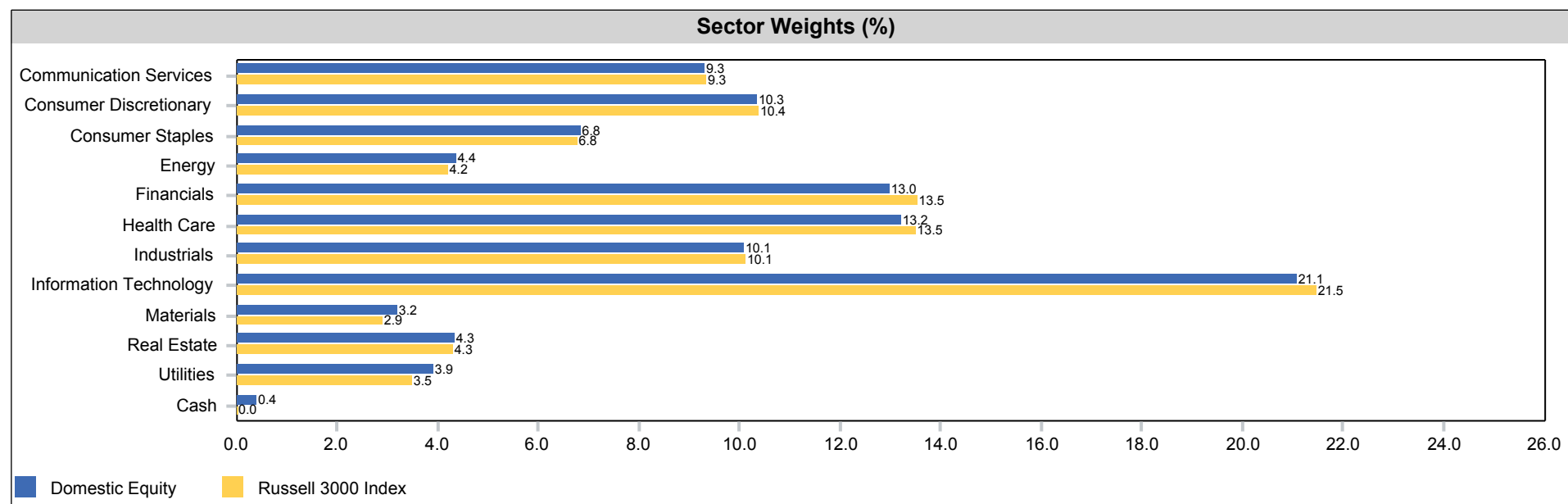
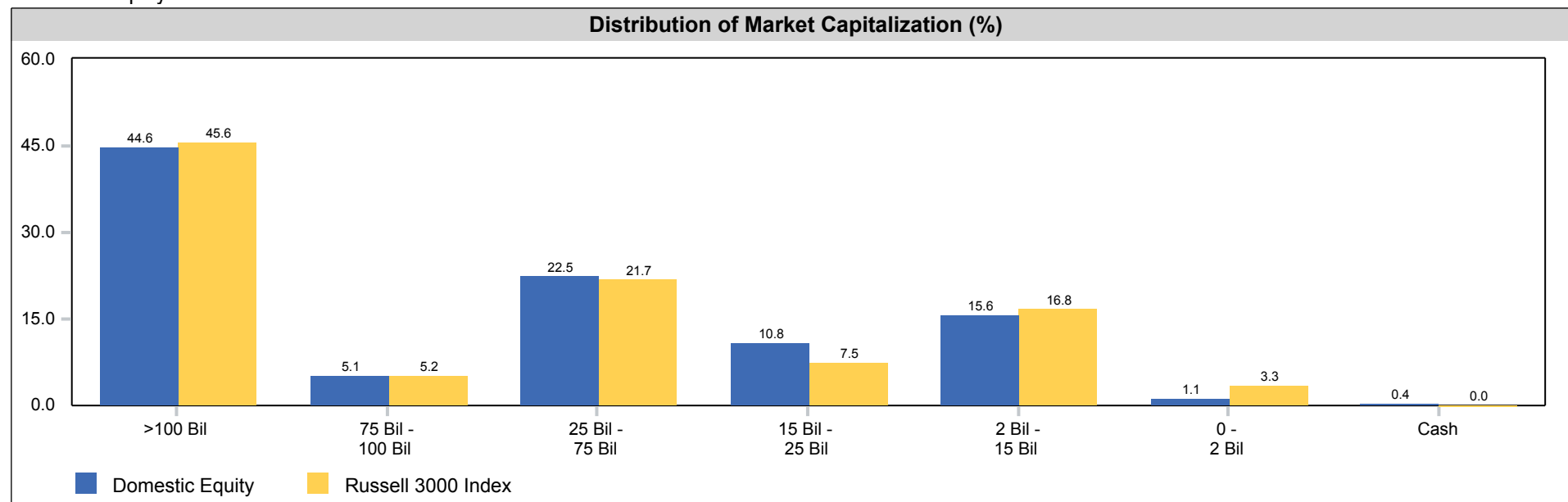
<b>Top Ten Equity Holdings</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Microsoft Corp	3.54	3.58	-0.04	4.14
Apple Inc	3.16	3.44	-0.28	13.59
Amazon.com Inc	2.41	2.44	-0.03	-8.33
Facebook Inc	1.43	1.45	-0.02	-7.73
Berkshire Hathaway Inc	1.34	1.38	-0.04	-2.42
JPMorgan Chase & Co	1.25	1.27	-0.02	6.01
Alphabet Inc	1.23	1.26	-0.03	12.78
Alphabet Inc	1.22	1.24	-0.02	12.78
Johnson & Johnson	1.14	1.17	-0.03	-6.42
Procter & Gamble Co (The)	1.04	1.05	-0.01	14.17
% of Portfolio	17.76	18.28	-0.52	

<b>Ten Best Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Direct Corp	0.00	0.00	0.00	182.21
Castle Brands Inc	0.00	0.00	0.00	171.61
Taronis Technologies Inc	0.00	0.00	0.00	157.33
Impac Mortgage Holdings Inc.	0.00	0.00	0.00	153.87
Hovnanian Enterprises Inc.	0.00	0.00	0.00	153.29
Stage Stores Inc	0.00	0.00	0.00	144.15
Dixie Group Inc (The)	0.00	0.00	0.00	137.93
Francescas Holdings Corp	0.00	0.00	0.00	135.67
Milestone Scientific Inc.	0.00	0.00	0.00	131.84
Infrastructure and Energy Alts Inc	0.00	0.00	0.00	128.43
% of Portfolio	0.00	0.00	0.00	

<b>Ten Worst Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Tocagen Inc	0.00	0.00	0.00	-90.08
Neurotrope Inc	0.00	0.00	0.00	-89.90
Viveve Medical Inc	0.00	0.00	0.00	-88.39
iPic Entertainment Inc	0.00	0.00	0.00	-86.25
American Res Corp	0.00	0.00	0.00	-80.00
Waitr Holdings Inc	0.00	0.00	0.00	-79.57
McDermott International Inc.	0.00	0.00	0.00	-79.09
Titan Pharmaceuticals Inc	0.00	0.00	0.00	-78.98
Pioneer Energy Services Corp	0.00	0.00	0.00	-78.25
Sonim Technologies Inc	0.00	0.00	0.00	-76.98
% of Portfolio	0.00	0.00	0.00	



## Domestic Equity vs. Russell 3000 Index





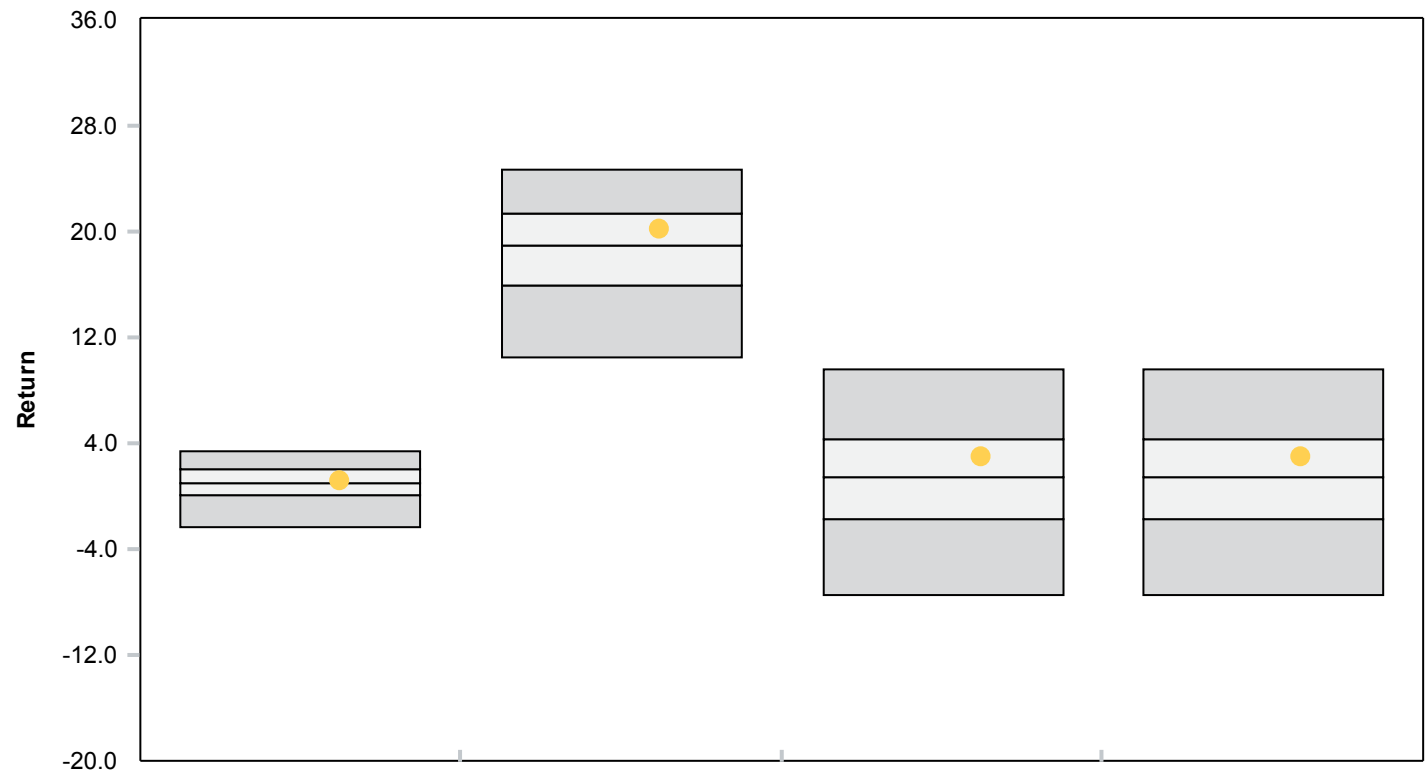
Domestic Equity vs. Russell 3000 Index

Buy-and-Hold Portfolio	1.39
Portfolio Trading	-0.01
Actual Return	1.37
Benchmark Return	1.16
Actual Active Return	0.21
Stock Selection	0.11
Sector Selection	0.01
Interaction	0.00
Total Selection	0.13
Portfolio Trading	-0.01
Benchmark Trading	-0.10
Active Trading Impact	0.08
Buy & Hold Active Return	0.21

	Allocation-07/01/2019		Performance-1 Quarter Ending September 30, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	9.07	9.12	2.09	2.01	0.01	0.00	0.00	0.01
Consumer Discretionary	10.38	10.44	0.29	0.59	-0.03	0.00	0.00	-0.03
Consumer Staples	6.50	6.46	5.99	5.94	0.00	0.00	0.00	0.00
Energy	4.85	4.66	-7.25	-7.54	0.01	-0.02	0.00	0.00
Financials	13.02	13.62	1.84	1.83	0.00	0.00	0.00	0.00
Health Care	13.67	14.00	-3.00	-3.16	0.02	0.01	0.00	0.04
Industrials	10.19	10.16	1.02	0.73	0.03	0.00	0.00	0.03
Information Technology	20.92	21.39	2.75	2.65	0.02	-0.01	0.00	0.01
Materials	3.21	2.99	-0.19	-0.63	0.01	0.00	0.00	0.01
Real Estate	4.02	3.94	7.70	7.42	0.01	0.01	0.00	0.02
Utilities	3.65	3.21	8.67	8.05	0.02	0.03	0.00	0.05
Other	0.01	0.02	7.28	7.61	0.00	0.00	0.00	0.00
Cash	0.50	0.00	0.00	0.00	0.00	-0.01	0.00	-0.01
Total	100.00	100.00	1.39	1.26	0.11	0.01	0.00	0.13



IM U.S. Multi-Cap Core Equity (MF)



■ Vanguard Total Stock Mkt Index Fund

● Russell 3000 Index

5th Percentile

3.37

24.69

9.65

9.65

1st Quartile

2.02

21.31

4.30

4.30

Median

1.00

18.99

1.47

1.47

3rd Quartile

0.10

15.91

-1.77

-1.77

95th Percentile

-2.32

10.56

-7.45

-7.45

Population

778

766

757

757

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



## Vanguard Total Stock Mkt Index Fund vs. Russell 3000 Index

<b>Portfolio Characteristics</b>		
	<b>Portfolio</b>	<b>Benchmark</b>
Wtd. Avg. Mkt. Cap (\$M)	205,124	209,668
Median Mkt. Cap (\$M)	1,010	1,604
Price/Earnings ratio	20.43	20.43
Price/Book ratio	3.35	3.35
5 Yr. EPS Growth Rate (%)	15.74	15.73
Current Yield (%)	1.91	1.90
Number of Stocks	3,591	3,005

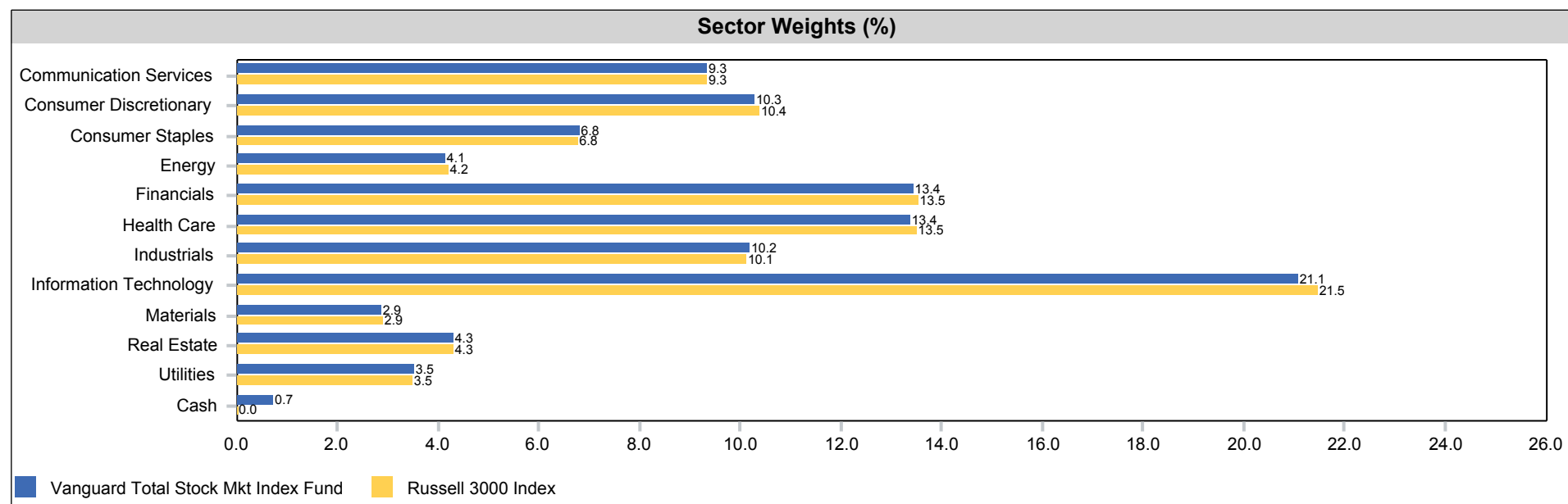
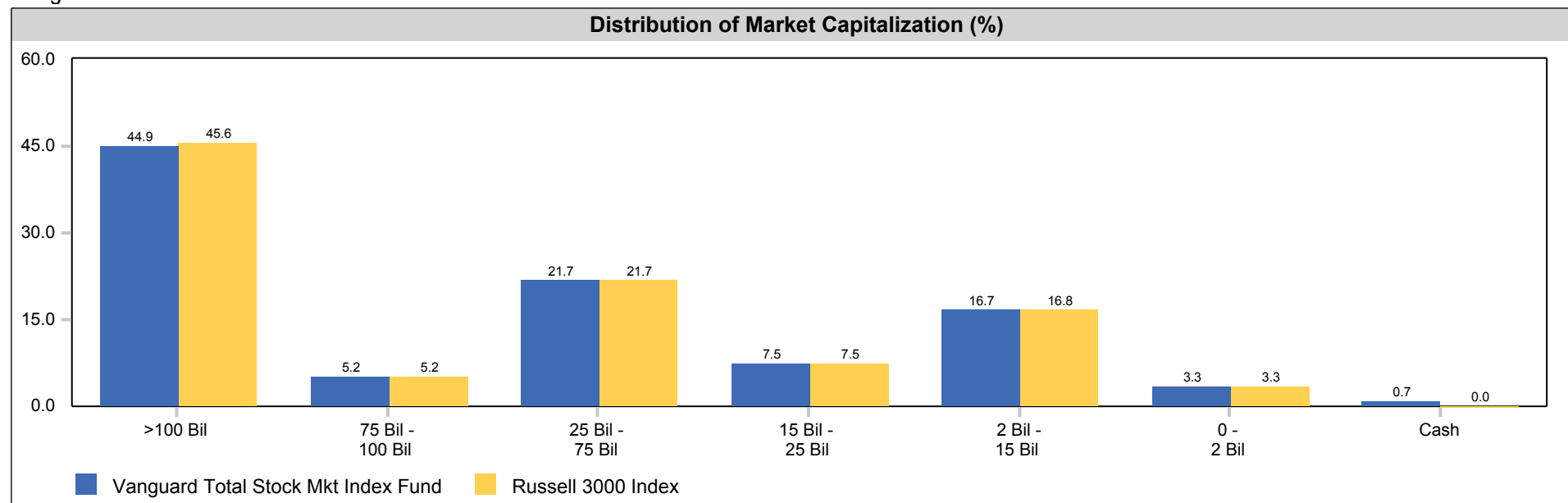
<b>Top Ten Equity Holdings</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Microsoft Corp	3.59	3.58	0.01	4.14
Apple Inc	3.08	3.44	-0.36	13.59
Amazon.com Inc	2.47	2.44	0.03	-8.33
Facebook Inc	1.45	1.45	0.00	-7.73
Berkshire Hathaway Inc	1.33	1.38	-0.05	-2.42
Alphabet Inc	1.23	1.24	-0.01	12.78
Alphabet Inc	1.22	1.26	-0.04	12.78
JPMorgan Chase & Co	1.21	1.27	-0.06	6.01
Johnson & Johnson	1.15	1.17	-0.02	-6.42
Procter & Gamble Co (The)	1.05	1.05	0.00	14.17
% of Portfolio	17.78	18.28	-0.50	

<b>Ten Best Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Direct Corp	0.00	0.00	0.00	182.21
Castle Brands Inc	0.00	0.00	0.00	171.61
Taronis Technologies Inc	0.00	0.00	0.00	157.33
Impac Mortgage Holdings Inc.	0.00	0.00	0.00	153.87
Hovnanian Enterprises Inc.	0.00	0.00	0.00	153.29
Stage Stores Inc	0.00	0.00	0.00	144.15
Dixie Group Inc (The)	0.00	0.00	0.00	137.93
Francescas Holdings Corp	0.00	0.00	0.00	135.67
Milestone Scientific Inc.	0.00	0.00	0.00	131.84
Infrastructure and Energy Alts Inc	0.00	0.00	0.00	128.43
% of Portfolio	0.00	0.00	0.00	

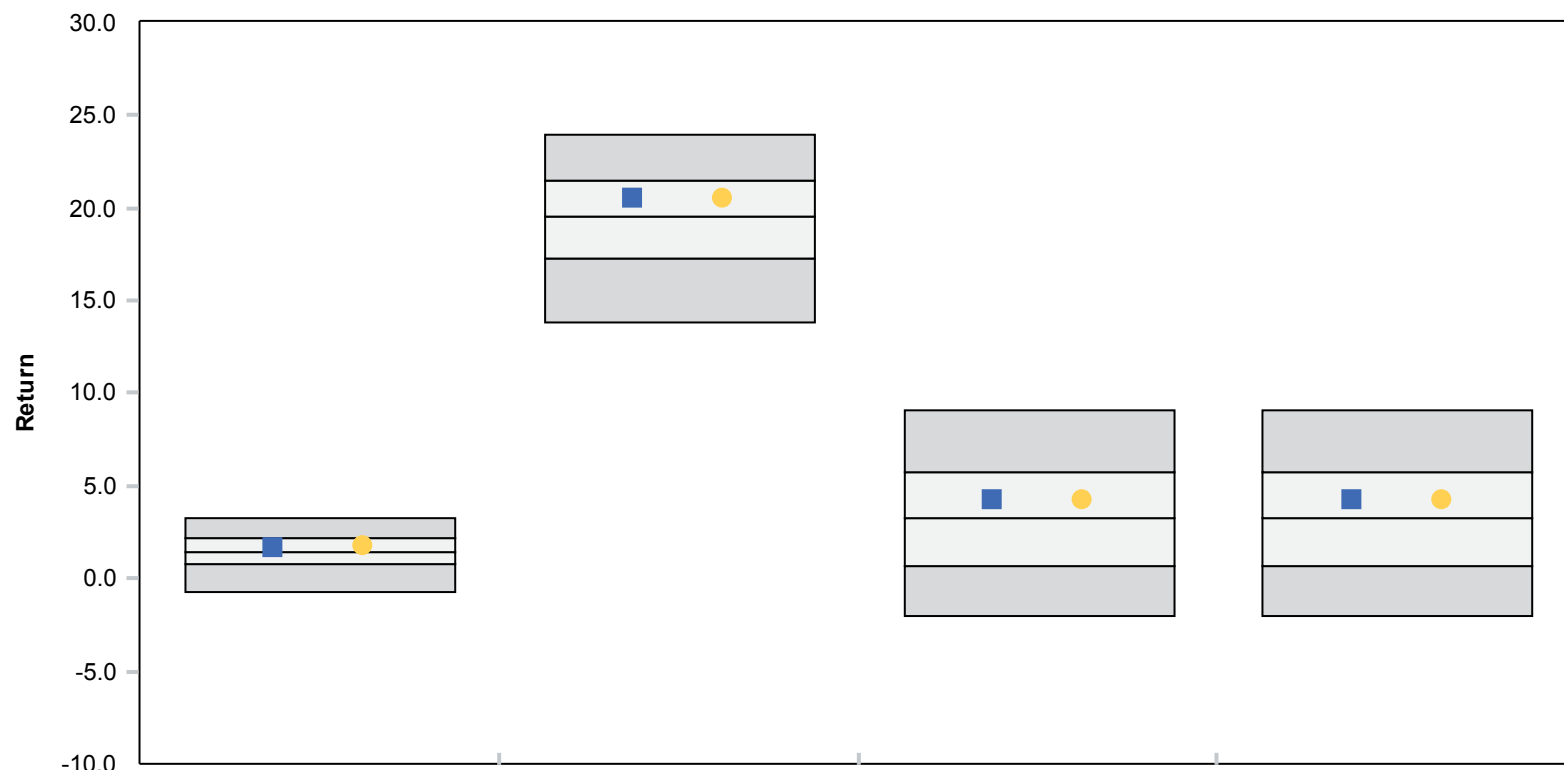
<b>Ten Worst Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Tocagen Inc	0.00	0.00	0.00	-90.08
Neurotrope Inc	0.00	0.00	0.00	-89.90
Viveve Medical Inc	0.00	0.00	0.00	-88.39
iPic Entertainment Inc	0.00	0.00	0.00	-86.25
American Res Corp	0.00	0.00	0.00	-80.00
Waitr Holdings Inc	0.00	0.00	0.00	-79.57
McDermott International Inc.	0.00	0.00	0.00	-79.09
Titan Pharmaceuticals Inc	0.00	0.00	0.00	-78.98
Pioneer Energy Services Corp	0.00	0.00	0.00	-78.25
Sonim Technologies Inc	0.00	0.00	0.00	-76.98
% of Portfolio	0.00	0.00	0.00	



## Vanguard Total Stock Mkt Index Fund vs. Russell 3000 Index



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



■ Fidelity 500 Index Fund  
● S&P 500

5th Percentile	3.31	23.95	9.06	9.06
1st Quartile	2.17	21.47	5.76	5.76
Median	1.46	19.49	3.21	3.21
3rd Quartile	0.75	17.24	0.68	0.68
95th Percentile	-0.72	13.83	-2.01	-2.01
Population	778	749	733	733

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)	245,976	246,599
Median Mkt. Cap (\$M)	22,714	22,714
Price/Earnings ratio	20.56	20.56
Price/Book ratio	3.48	3.48
5 Yr. EPS Growth Rate (%)	15.83	15.83
Current Yield (%)	1.98	1.98
Number of Stocks	506	505

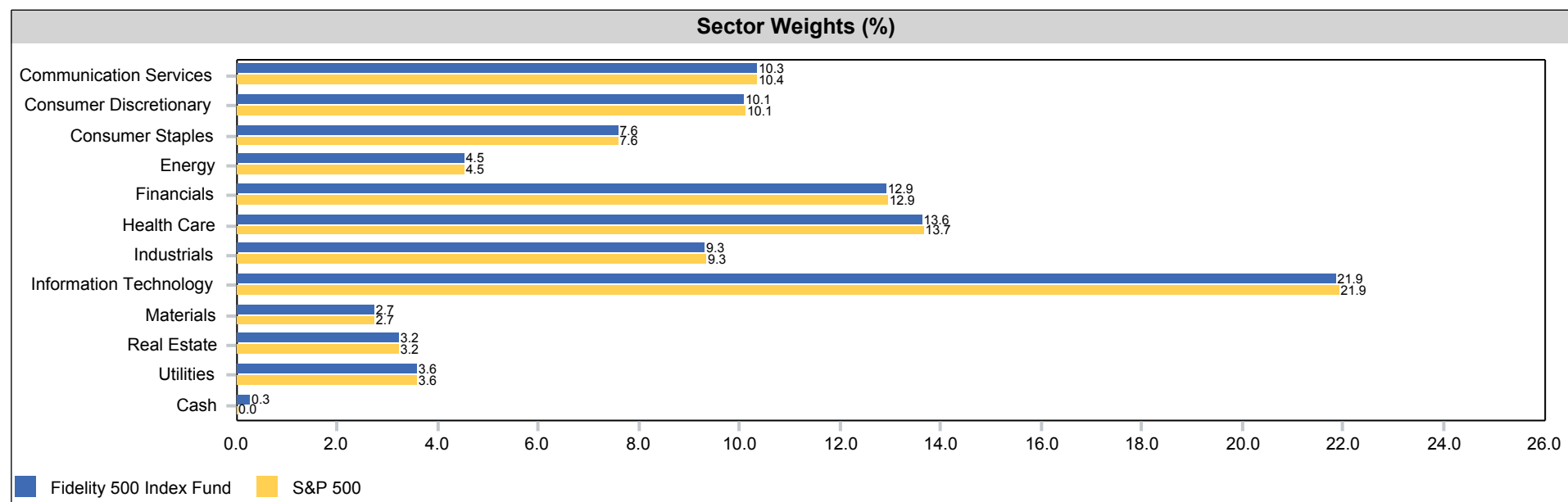
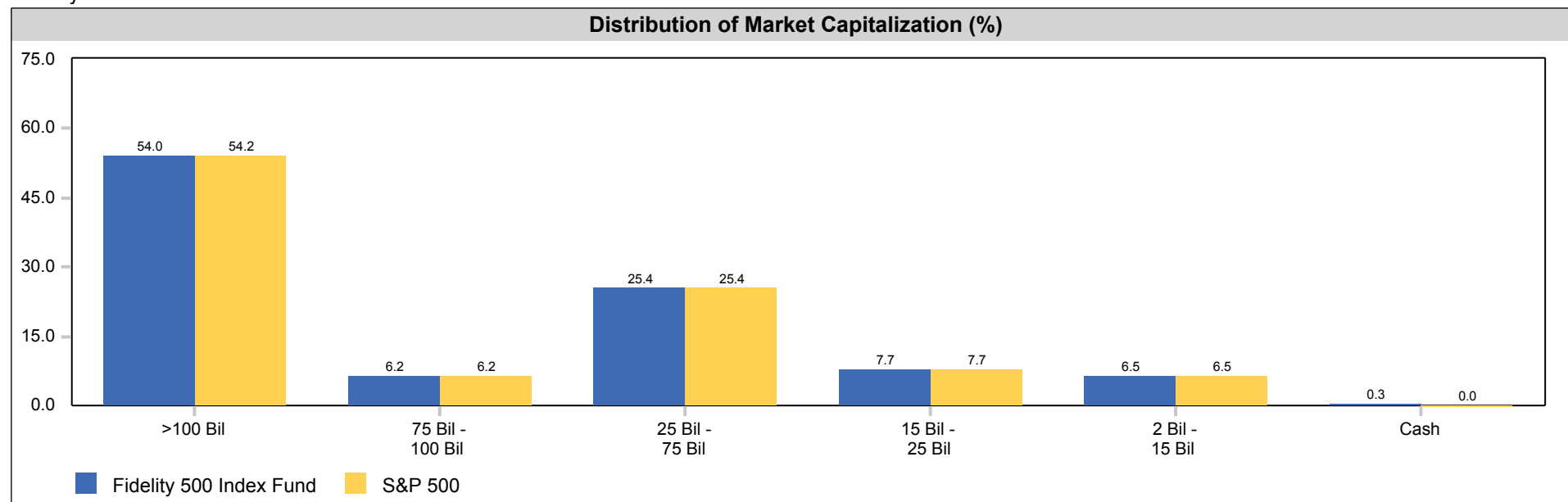
<b>Top Ten Equity Holdings</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Microsoft Corp	4.29	4.30	-0.01	4.14
Apple Inc	3.84	3.85	-0.01	13.59
Amazon.com Inc	2.91	2.92	-0.01	-8.33
Facebook Inc	1.73	1.73	0.00	-7.73
Berkshire Hathaway Inc	1.65	1.65	0.00	-2.42
JPMorgan Chase & Co	1.52	1.52	0.00	6.01
Alphabet Inc	1.49	1.49	0.00	12.78
Alphabet Inc	1.48	1.48	0.00	12.78
Johnson & Johnson	1.38	1.38	0.00	-6.42
Procter & Gamble Co (The)	1.26	1.26	0.00	14.17
% of Portfolio	21.55	21.58	-0.03	

<b>Ten Best Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
KLA Corp	0.10	0.10	0.00	35.67
Western Digital Corp	0.07	0.07	0.00	25.43
Target Corp	0.22	0.22	0.00	24.39
Lam Research Corp	0.13	0.14	-0.01	23.65
Newell Brands Inc	0.03	0.03	0.00	23.10
D.R. Horton Inc.	0.07	0.07	0.00	22.60
J.B. Hunt Transport Services Inc.	0.04	0.04	0.00	21.36
Kellogg Co	0.06	0.06	0.00	21.21
Sherwin-Williams Co (The)	0.18	0.18	0.00	20.24
Kroger Co. (The)	0.08	0.08	0.00	19.61
% of Portfolio	0.98	0.99	-0.01	

<b>Ten Worst Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Nektar Therapeutics	0.01	0.01	0.00	-48.81
DXC Technology Co	0.03	0.03	0.00	-46.15
Concho Resources Inc	0.06	0.06	0.00	-34.08
Align Technology Inc	0.05	0.05	0.00	-33.90
ABIOMED Inc	0.03	0.03	0.00	-31.71
Ulta Beauty Inc	0.06	0.06	0.00	-27.74
Netflix Inc	0.47	0.47	0.00	-27.14
Macy's Inc	0.02	0.02	0.00	-25.98
Alexion Pharmaceuticals Inc	0.09	0.09	0.00	-25.23
L Brands Inc	0.02	0.02	0.00	-23.78
% of Portfolio	0.84	0.84	0.00	



Fidelity 500 Index Fund vs. S&P 500



## Buy and Hold Sector Attribution

1 Quarter Ending September 30, 2019

Fidelity 500 Index Fund vs. S&P 500

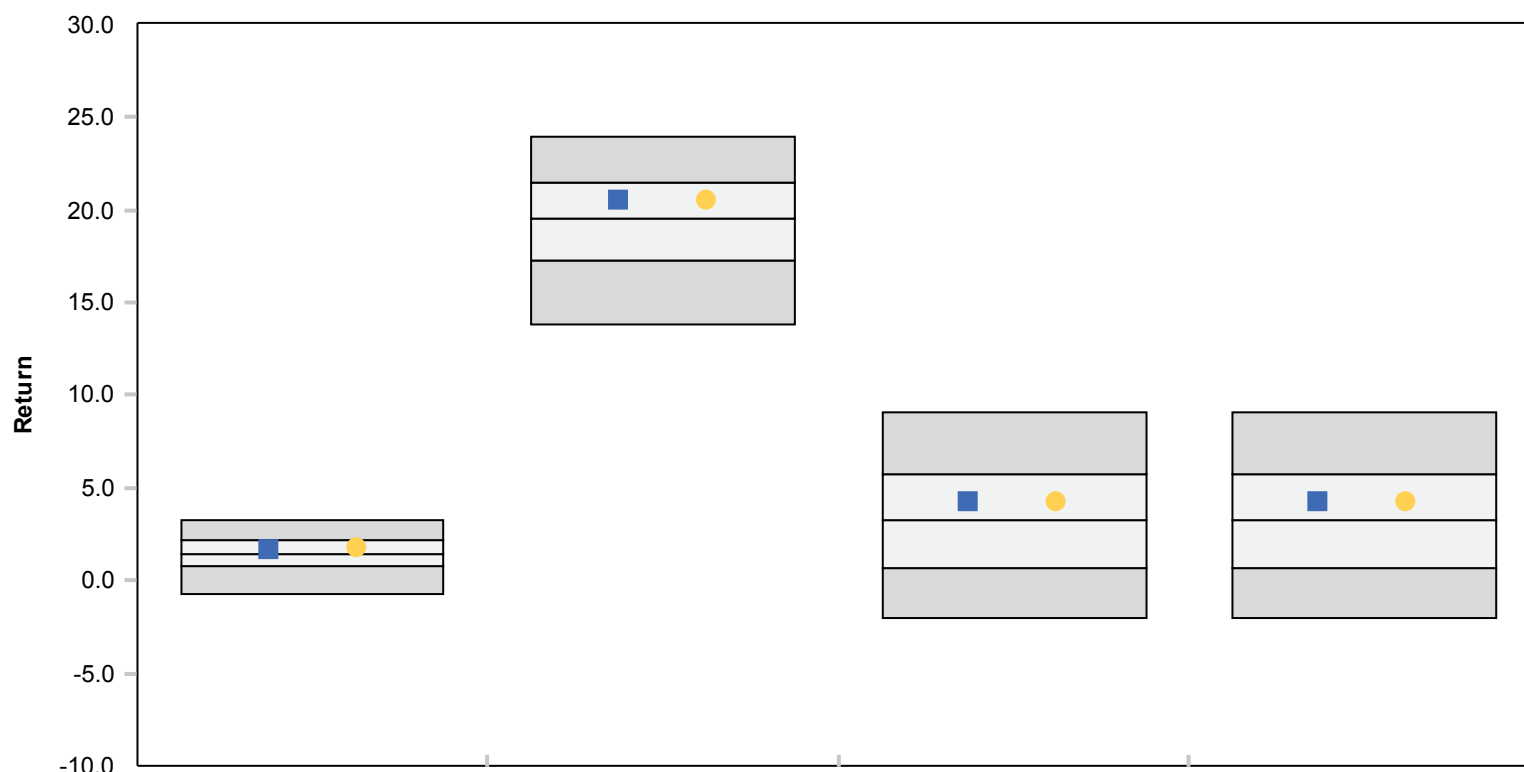
Buy-and-Hold Portfolio	1.70
Portfolio Trading	0.00
Actual Return	1.69
Benchmark Return	1.70
Actual Active Return	0.00
Stock Selection	0.00
Sector Selection	0.00
Interaction	0.00
Total Selection	0.00
Portfolio Trading	0.00
Benchmark Trading	0.00
Active Trading Impact	0.00
Buy & Hold Active Return	0.00

	Allocation-07/01/2019		Performance-1 Quarter Ending September 30, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	10.17	10.19	2.24	2.24	0.00	0.00	0.00	0.00
Consumer Discretionary	10.17	10.19	0.51	0.51	0.00	0.00	0.00	0.00
Consumer Staples	7.26	7.27	6.12	6.12	0.00	0.00	0.00	0.00
Energy	5.04	5.05	-6.35	-6.35	0.00	0.00	0.00	0.00
Financials	13.04	13.07	2.01	2.01	0.00	0.00	0.00	0.00
Health Care	14.17	14.20	-2.25	-2.25	0.00	0.00	0.00	0.00
Industrials	9.36	9.38	0.90	0.90	0.00	0.00	0.00	0.00
Information Technology	21.44	21.48	3.38	3.38	0.00	0.00	0.00	0.00
Materials	2.79	2.80	-0.09	-0.09	0.00	0.00	0.00	0.00
Real Estate	3.05	3.05	7.72	7.72	0.00	0.00	0.00	0.00
Utilities	3.30	3.31	9.36	9.36	0.00	0.00	0.00	0.00
Cash	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	100.00	100.00	1.70	1.70	0.00	0.00	0.00	0.00





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



■ Vanguard 500 Index Fund

● S&amp;P 500

5th Percentile

1st Quartile

Median

3rd Quartile

95th Percentile

Population

1.69 (40)

1.70 (39)

3.31

2.17

1.46

0.75

-0.72

778

Year  
To  
Date

20.54 (36)

20.55 (35)

23.95

21.47

19.49

17.24

13.83

749

Trailing  
12-months

4.22 (39)

4.25 (39)

9.06

5.76

3.21

0.68

-2.01

733

Fiscal Year  
To Date

4.22 (39)

4.25 (39)

9.06

5.76

3.21

0.68

-2.01

733

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

<b>Portfolio Characteristics</b>		
	<b>Portfolio</b>	<b>Benchmark</b>
Wtd. Avg. Mkt. Cap (\$M)	245,999	246,599
Median Mkt. Cap (\$M)	22,702	22,714
Price/Earnings ratio	20.56	20.56
Price/Book ratio	3.48	3.48
5 Yr. EPS Growth Rate (%)	15.83	15.83
Current Yield (%)	1.98	1.98
Number of Stocks	512	505

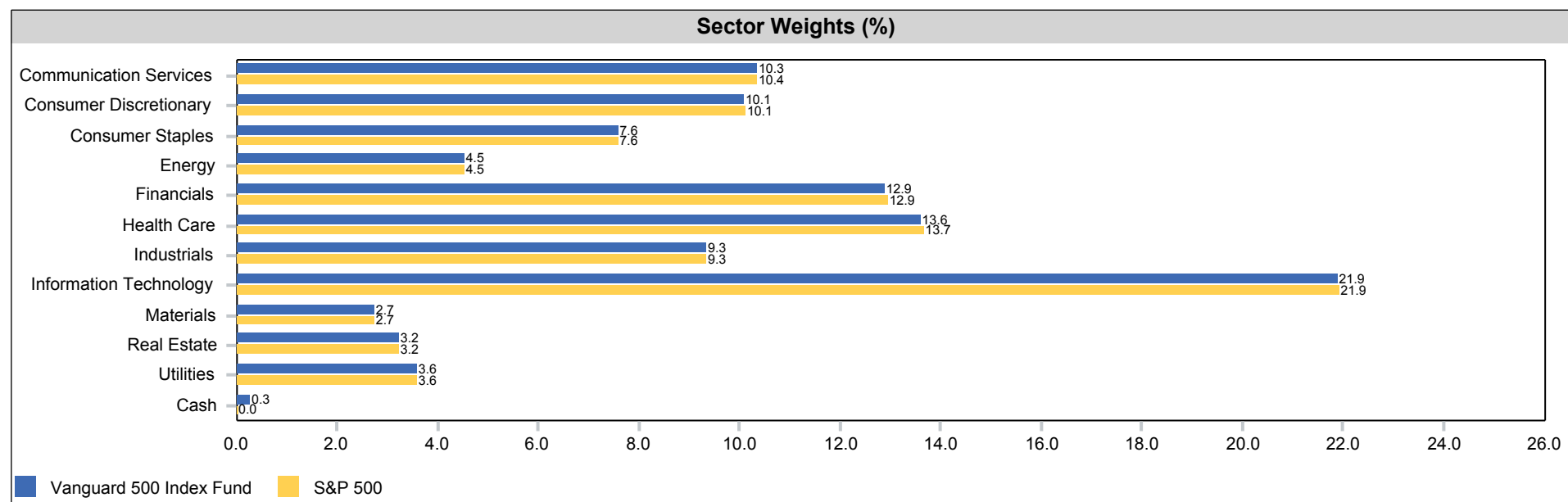
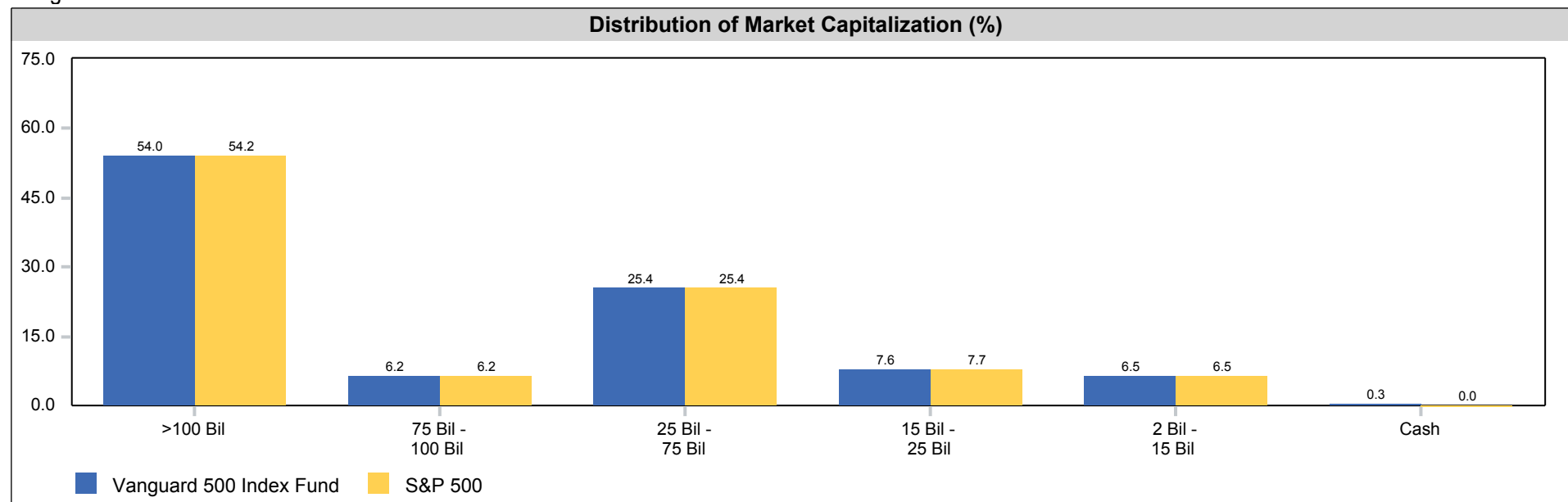
<b>Top Ten Equity Holdings</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Microsoft Corp	4.29	4.30	-0.01	4.14
Apple Inc	3.84	3.85	-0.01	13.59
Amazon.com Inc	2.91	2.92	-0.01	-8.33
Facebook Inc	1.73	1.73	0.00	-7.73
Berkshire Hathaway Inc	1.60	1.65	-0.05	-2.42
JPMorgan Chase & Co	1.52	1.52	0.00	6.01
Alphabet Inc	1.49	1.49	0.00	12.78
Alphabet Inc	1.47	1.48	-0.01	12.78
Johnson & Johnson	1.38	1.38	0.00	-6.42
Procter & Gamble Co (The)	1.26	1.26	0.00	14.17
% of Portfolio	21.49	21.58	-0.09	

<b>Ten Best Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
KLA Corp	0.10	0.10	0.00	35.67
Western Digital Corp	0.07	0.07	0.00	25.43
Target Corp	0.22	0.22	0.00	24.39
Lam Research Corp	0.13	0.14	-0.01	23.65
Newell Brands Inc	0.03	0.03	0.00	23.10
D.R. Horton Inc.	0.07	0.07	0.00	22.60
J.B. Hunt Transport Services Inc.	0.04	0.04	0.00	21.36
Kellogg Co	0.06	0.06	0.00	21.21
Sherwin-Williams Co (The)	0.18	0.18	0.00	20.24
Kroger Co. (The)	0.08	0.08	0.00	19.61
% of Portfolio	0.98	0.99	-0.01	

<b>Ten Worst Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Nektar Therapeutics	0.01	0.01	0.00	-48.81
DXC Technology Co	0.03	0.03	0.00	-46.15
Concho Resources Inc	0.06	0.06	0.00	-34.08
Align Technology Inc	0.05	0.05	0.00	-33.90
ABIOMED Inc	0.03	0.03	0.00	-31.71
Ulta Beauty Inc	0.06	0.06	0.00	-27.74
Netflix Inc	0.47	0.47	0.00	-27.14
Macy's Inc	0.02	0.02	0.00	-25.98
Alexion Pharmaceuticals Inc	0.09	0.09	0.00	-25.23
L Brands Inc	0.02	0.02	0.00	-23.78
% of Portfolio	0.84	0.84	0.00	



Vanguard 500 Index Fund vs. S&P 500



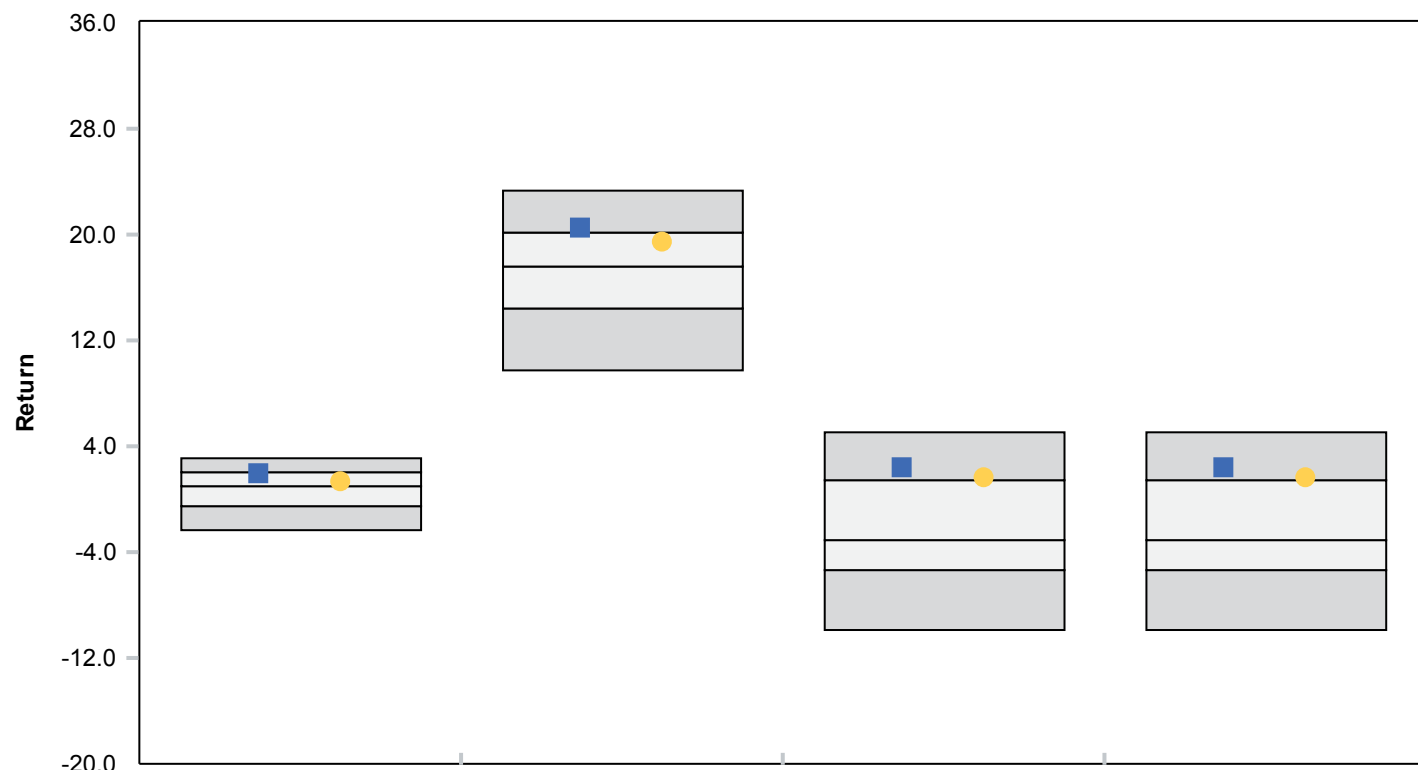
Vanguard 500 Index Fund vs. S&amp;P 500

Buy-and-Hold Portfolio	1.70
Portfolio Trading	-0.01
Actual Return	1.69
Benchmark Return	1.70
Actual Active Return	-0.01
Stock Selection	0.00
Sector Selection	-0.01
Interaction	0.00
Total Selection	-0.01
Portfolio Trading	-0.01
Benchmark Trading	0.00
Active Trading Impact	0.00
Buy & Hold Active Return	-0.01

	Allocation-07/01/2019		Performance-1 Quarter Ending September 30, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	10.13	10.19	2.24	2.24	0.00	0.00	0.00	0.00
Consumer Discretionary	10.13	10.19	0.51	0.51	0.00	0.00	0.00	0.00
Consumer Staples	7.23	7.27	6.13	6.12	0.00	0.00	0.00	0.00
Energy	5.02	5.05	-6.35	-6.35	0.00	0.00	0.00	0.00
Financials	13.02	13.07	2.01	2.01	0.00	0.00	0.00	0.00
Health Care	14.08	14.20	-2.23	-2.25	0.00	0.00	0.00	0.01
Industrials	9.32	9.38	0.90	0.90	0.00	0.00	0.00	0.00
Information Technology	21.36	21.48	3.38	3.38	0.00	0.00	0.00	0.00
Materials	2.78	2.80	-0.09	-0.09	0.00	0.00	0.00	0.00
Real Estate	3.04	3.05	7.72	7.72	0.00	0.00	0.00	0.00
Utilities	3.29	3.31	9.35	9.36	0.00	0.00	0.00	0.00
Cash	0.60	0.00	0.00	0.00	0.00	-0.01	0.00	-0.01
Total	100.00	100.00	1.70	1.70	0.00	-0.01	0.00	-0.01



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



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

5th Percentile	3.05	23.26	5.04	5.04
1st Quartile	1.97	20.21	1.51	1.51
Median	0.99	17.64	-3.11	-3.11
3rd Quartile	-0.59	14.47	-5.35	-5.35
95th Percentile	-2.41	9.78	-9.84	-9.84
Population	183	181	181	181

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)	15,421	15,281
Median Mkt. Cap (\$M)	12,233	7,626
Price/Earnings ratio	16.27	17.56
Price/Book ratio	2.28	2.18
5 Yr. EPS Growth Rate (%)	7.77	9.45
Current Yield (%)	2.39	2.44
Number of Stocks	201	633

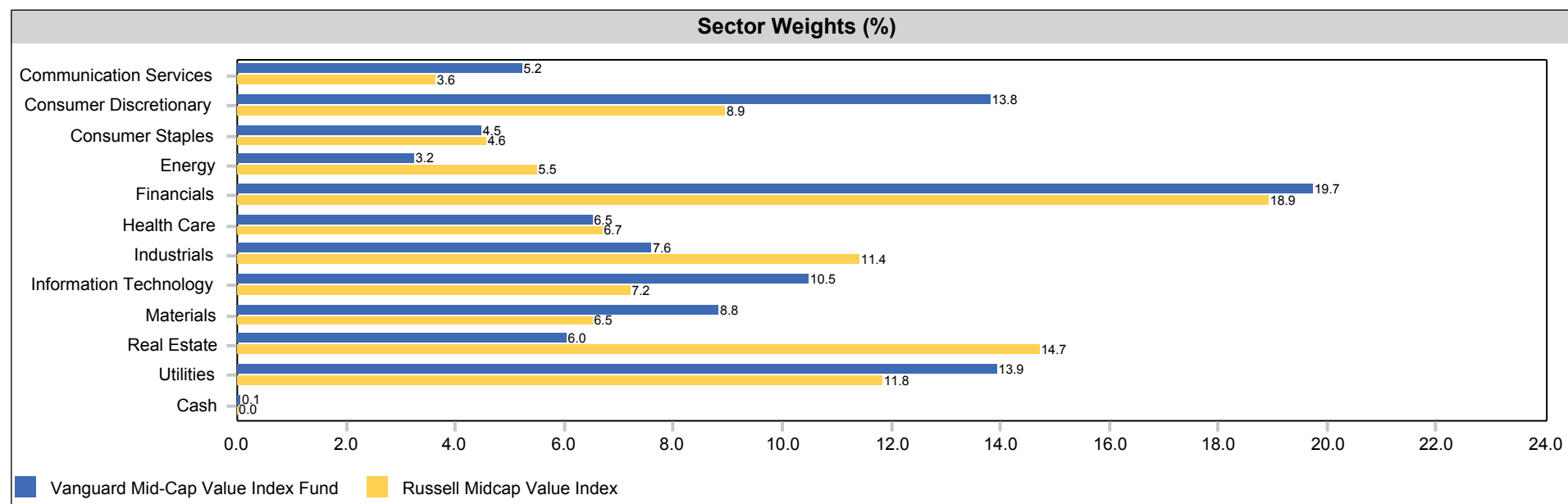
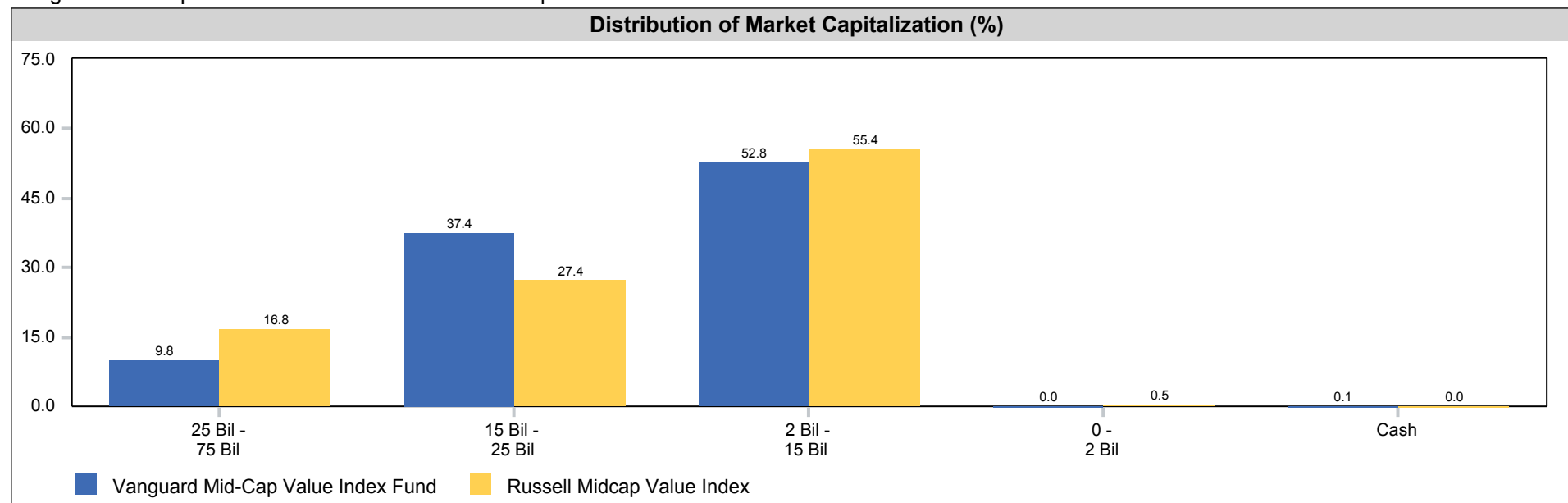
<b>Top Ten Equity Holdings</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Newmont Goldcorp Corp	1.48	0.67	0.81	-1.07
WEC Energy Group Inc	1.42	0.65	0.77	14.82
Motorola Solutions Inc	1.34	0.16	1.18	2.56
Eversource Energy	1.31	0.60	0.71	13.54
FirstEnergy Corp.	1.22	0.56	0.66	13.65
Willis Towers Watson plc	1.18	0.54	0.64	1.09
DTE Energy Co	1.16	0.53	0.63	4.74
Entergy Corp.	1.11	0.51	0.60	15.00
American Water Works Co Inc	1.06	0.49	0.57	7.54
Hartford Financial Svcs Grp Inc.	1.04	0.47	0.57	9.34
% of Portfolio	12.32	5.18	7.14	

<b>Ten Best Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
KLA Corp	0.60	0.00	0.60	35.67
Western Digital Corp	0.80	0.38	0.42	25.43
Newell Brands Inc	0.34	0.15	0.19	23.10
D.R. Horton Inc.	0.88	0.39	0.49	22.60
Aramark	0.51	0.23	0.28	21.21
Vistra Energy Corp	0.50	0.25	0.25	18.63
Campbell Soup Co	0.44	0.07	0.37	18.10
Perrigo Co Plc	0.34	0.15	0.19	17.89
Western Union Co	0.47	0.17	0.30	17.49
Alleghany Corp	0.52	0.22	0.30	17.13
% of Portfolio	5.40	2.01	3.39	

<b>Ten Worst Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
PG&E Corp	0.13	0.11	0.02	-56.37
DXC Technology Co	0.18	0.17	0.01	-46.15
Macy's Inc	0.11	0.10	0.01	-25.98
L Brands Inc	0.11	0.08	0.03	-23.78
Viacom Inc	0.01	0.01	0.00	-22.44
Elanco Animal Health Inc	0.47	0.22	0.25	-21.33
Coty Inc	0.15	0.07	0.08	-20.59
Viacom Inc	0.40	0.18	0.22	-18.93
CBS Corp	0.33	0.03	0.30	-18.77
Mosaic Company (The)	0.34	0.16	0.18	-17.87
% of Portfolio	2.23	1.13	1.10	



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



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

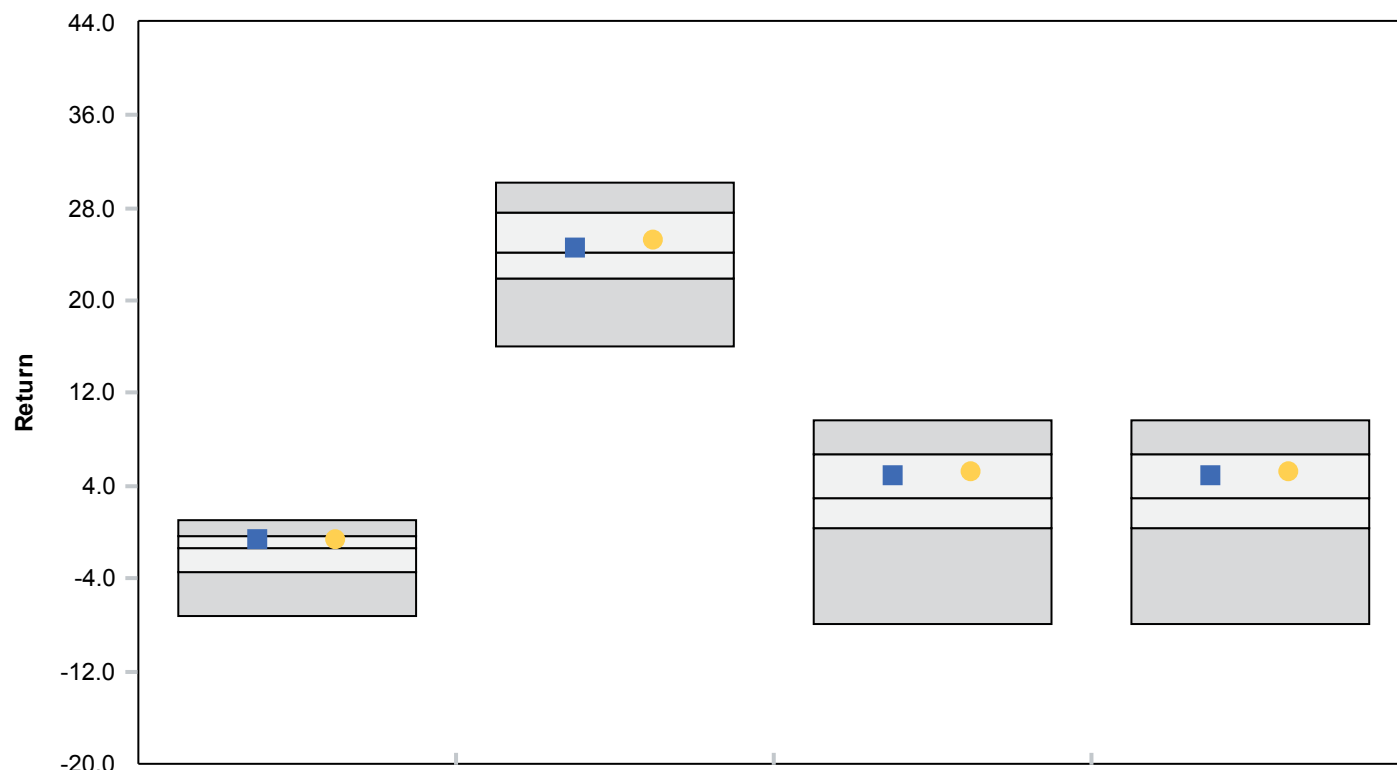
Buy-and-Hold Portfolio	1.76
Portfolio Trading	0.11
Actual Return	1.88
Benchmark Return	1.22
Actual Active Return	0.65
Stock Selection	0.50
Sector Selection	-0.36
Interaction	0.03
Total Selection	0.17
Portfolio Trading	0.11
Benchmark Trading	-0.37
Active Trading Impact	0.48
Buy & Hold Active Return	0.65

	Allocation-07/01/2019		Performance-1 Quarter Ending September 30, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	5.15	3.21	-2.62	-2.80	0.01	-0.09	0.00	-0.08
Consumer Discretionary	14.36	8.43	0.52	0.20	0.03	-0.08	0.02	-0.04
Consumer Staples	4.31	4.73	4.48	6.18	-0.08	-0.02	0.01	-0.09
Energy	3.19	5.38	-5.20	-12.55	0.40	0.31	-0.16	0.55
Financials	19.59	17.84	1.83	2.27	-0.08	0.01	-0.01	-0.07
Health Care	6.62	7.13	-0.74	-1.38	0.05	0.02	0.00	0.06
Industrials	8.16	12.69	-1.13	-0.84	-0.04	0.11	0.01	0.09
Information Technology	10.94	9.04	4.06	0.28	0.34	-0.02	0.07	0.39
Materials	8.72	6.03	-1.98	-2.72	0.04	-0.12	0.02	-0.05
Real Estate	5.41	14.05	7.33	8.23	-0.13	-0.57	0.08	-0.62
Utilities	13.12	11.44	6.94	7.27	-0.04	0.10	-0.01	0.05
Other	0.00	0.01	0.00	7.61	0.00	0.00	0.00	0.00
Cash	0.43	0.00	0.00	0.00	0.00	-0.01	0.00	-0.01
Total	100.00	100.00	1.76	1.59	0.50	-0.36	0.03	0.17





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
	-0.61 (30)	24.55 (46)	4.85 (37)	4.85 (37)
	-0.67 (33)	25.23 (42)	5.20 (33)	5.20 (33)
5th Percentile	1.11	30.24	9.63	9.63
1st Quartile	-0.35	27.64	6.70	6.70
Median	-1.37	24.19	3.02	3.02
3rd Quartile	-3.37	22.01	0.28	0.28
95th Percentile	-7.16	16.03	-7.88	-7.88
Population	391	387	384	384

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



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

<b>Portfolio Characteristics</b>		
	<b>Portfolio</b>	<b>Benchmark</b>
Wtd. Avg. Mkt. Cap (\$M)	18,305	18,176
Median Mkt. Cap (\$M)	13,603	8,704
Price/Earnings ratio	30.63	27.29
Price/Book ratio	4.63	6.25
5 Yr. EPS Growth Rate (%)	16.67	17.89
Current Yield (%)	0.89	0.77
Number of Stocks	173	403

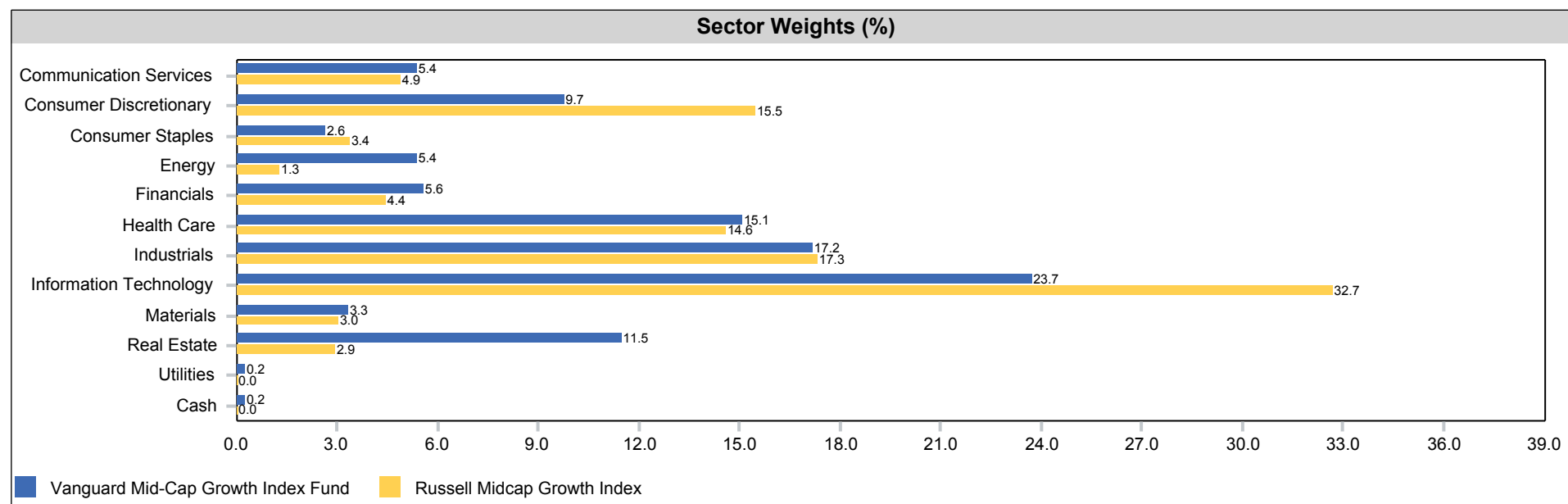
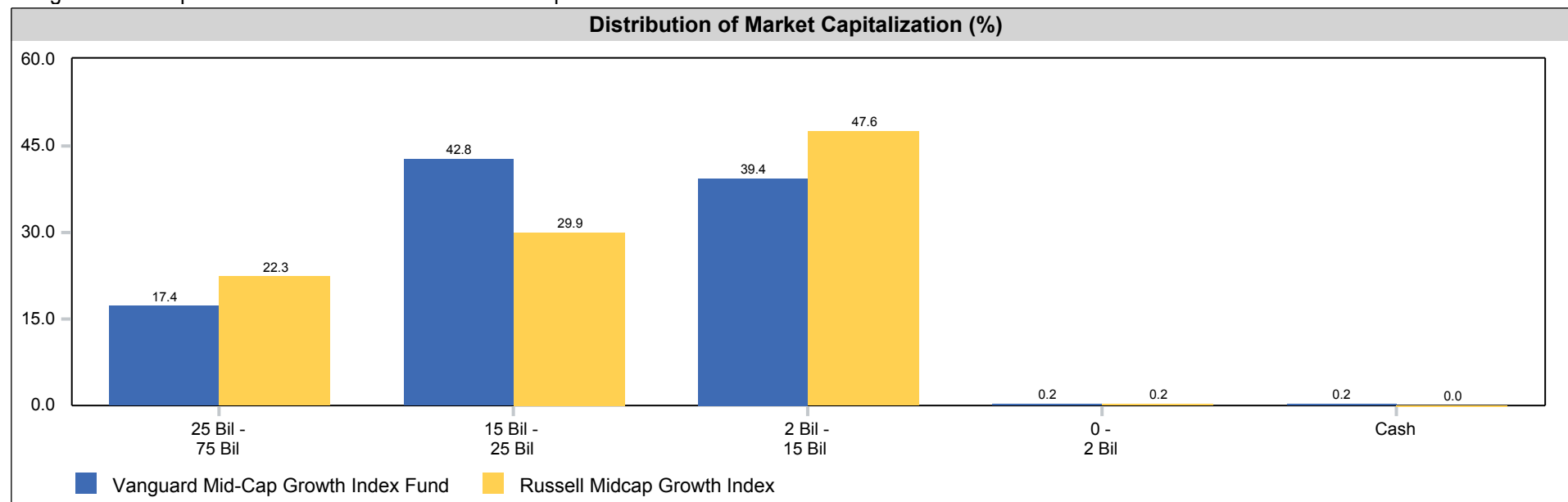
<b>Top Ten Equity Holdings</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Advanced Micro Devices Inc	1.53	0.98	0.55	-4.54
ONEOK Inc.	1.48	0.33	1.15	8.50
Twitter Inc	1.47	1.05	0.42	18.05
Amphenol Corp	1.40	0.95	0.45	0.85
SBA Communications Corp	1.33	0.92	0.41	7.40
Dollar Tree Inc	1.32	0.49	0.83	6.30
Digital Realty Trust Inc	1.32	0.00	1.32	11.15
TransDigm Group Inc	1.28	0.70	0.58	13.88
Iqvia Holdings Inc	1.28	0.39	0.89	-7.16
FleetCor Technologies Inc	1.21	0.83	0.38	2.11
% of Portfolio	13.62	6.64	6.98	

<b>Ten Best Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
KLA Corp	0.62	0.86	-0.24	35.67
XPO Logistics Inc	0.16	0.13	0.03	23.80
Seattle Genetics Inc	0.49	0.33	0.16	23.39
J.B. Hunt Transport Services Inc.	0.46	0.10	0.36	21.36
Martin Marietta Materials Inc.	0.83	0.18	0.65	19.38
LKQ Corp	0.45	0.05	0.40	18.19
Twitter Inc	1.47	1.05	0.42	18.05
Altice usa inc	0.49	0.30	0.19	17.78
Sun Communities Inc.	0.31	0.11	0.20	16.39
Lamb Weston Holdings Inc	0.52	0.09	0.43	15.12
% of Portfolio	5.80	3.20	2.60	

<b>Ten Worst Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Nektar Therapeutics	0.00	0.02	-0.02	-48.81
Lyft Inc	0.39	0.00	0.39	-37.85
Slack Technologies Inc	0.18	0.00	0.18	-36.72
Concho Resources Inc	0.66	0.00	0.66	-34.08
Align Technology Inc	0.63	0.48	0.15	-33.90
ABIOMED Inc	0.37	0.27	0.10	-31.71
Chewy Inc	0.05	0.00	0.05	-29.77
Ulta Beauty Inc	0.68	0.48	0.20	-27.74
Continental Resources Inc	0.11	0.00	0.11	-26.85
EXACT Sciences Corp	0.57	0.39	0.18	-23.44
% of Portfolio	3.64	1.64	2.00	



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



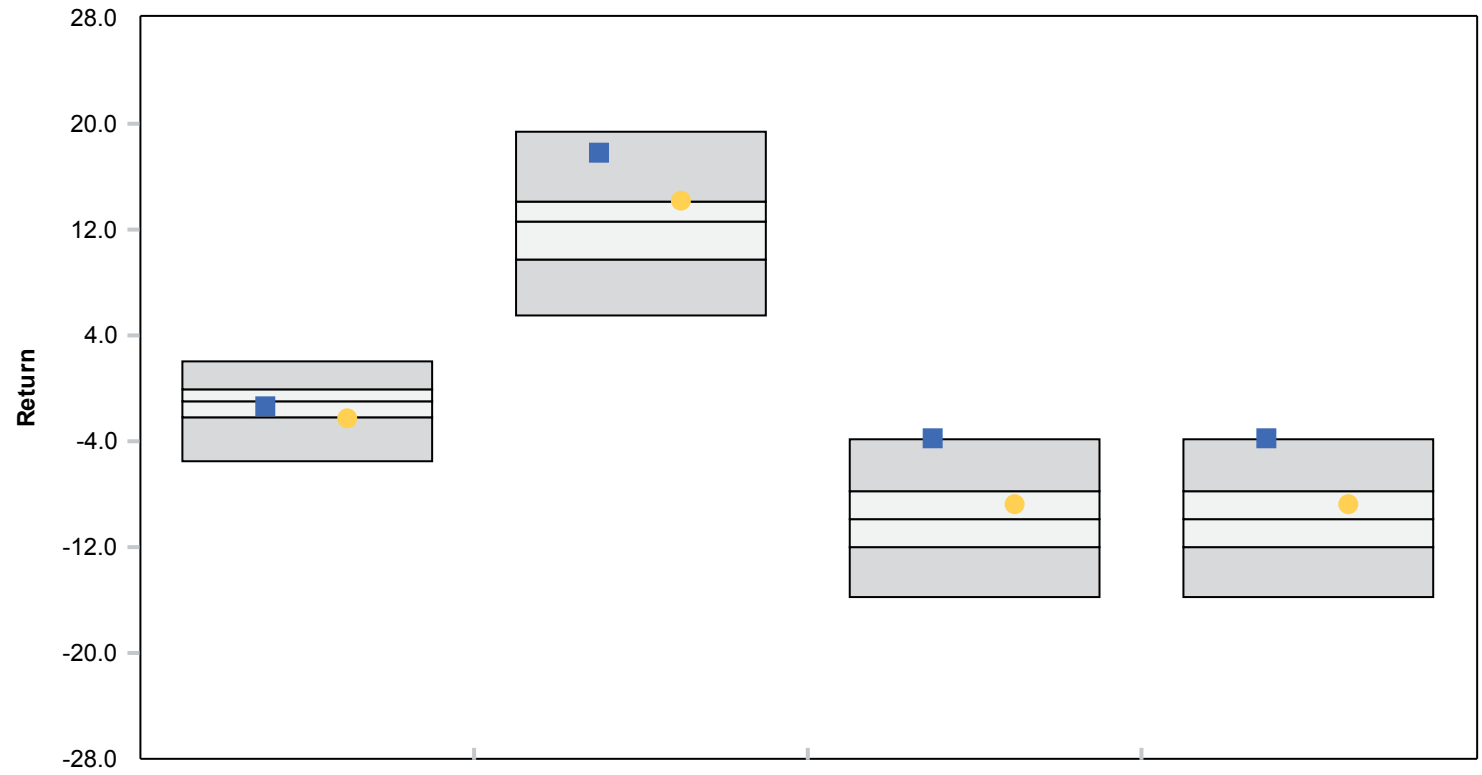
Vanguard Mid-Cap Growth Index Fund vs. Russell Midcap Growth Index

Buy-and-Hold Portfolio	-0.42
Portfolio Trading	-0.19
Actual Return	-0.61
Benchmark Return	-0.67
Actual Active Return	0.06
Stock Selection	-0.62
Sector Selection	-0.10
Interaction	0.52
Total Selection	-0.19
Portfolio Trading	-0.19
Benchmark Trading	-0.44
Active Trading Impact	0.26
Buy & Hold Active Return	0.06

	Allocation-07/01/2019		Performance-1 Quarter Ending September 30, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	4.25	3.86	8.24	0.45	0.30	0.00	0.03	0.33
Consumer Discretionary	9.12	16.32	-2.90	2.27	-0.84	-0.18	0.37	-0.65
Consumer Staples	2.35	2.95	5.18	8.11	-0.09	-0.05	0.02	-0.12
Energy	5.68	1.33	-10.86	-10.20	-0.01	-0.43	-0.03	-0.47
Financials	5.73	6.76	-0.36	0.35	-0.05	-0.01	0.01	-0.05
Health Care	15.21	14.29	-9.23	-7.81	-0.20	-0.07	-0.01	-0.29
Industrials	18.17	15.74	4.45	2.64	0.29	0.07	0.04	0.40
Information Technology	27.01	32.78	-2.06	-1.11	-0.31	0.05	0.05	-0.21
Materials	2.47	3.54	11.38	4.00	0.26	-0.04	-0.08	0.14
Real Estate	9.81	2.30	8.66	7.09	0.04	0.55	0.12	0.70
Utilities	0.20	0.00	12.85	0.00	0.00	0.03	0.00	0.03
Other	0.00	0.15	0.00	7.61	0.00	-0.01	0.00	-0.01
Total	100.00	100.00	-0.42	-0.23	-0.62	-0.10	0.52	-0.19



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
	-1.45 (64)	17.78 (8)	-3.81 (6)	-3.81 (6)
	-2.40 (80)	14.18 (22)	-8.89 (35)	-8.89 (35)
5th Percentile	2.00	19.46	-3.81	-3.81
1st Quartile	-0.03	14.04	-7.76	-7.76
Median	-0.92	12.64	-9.88	-9.88
3rd Quartile	-2.16	9.74	-12.00	-12.00
95th Percentile	-5.54	5.54	-15.83	-15.83
Population	156	153	151	151

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)	4,773	2,233
Median Mkt. Cap (\$M)	2,284	727
Price/Earnings ratio	18.75	17.54
Price/Book ratio	2.65	2.34
5 Yr. EPS Growth Rate (%)	14.17	11.42
Current Yield (%)	1.69	1.51
Number of Stocks	1,379	2,003

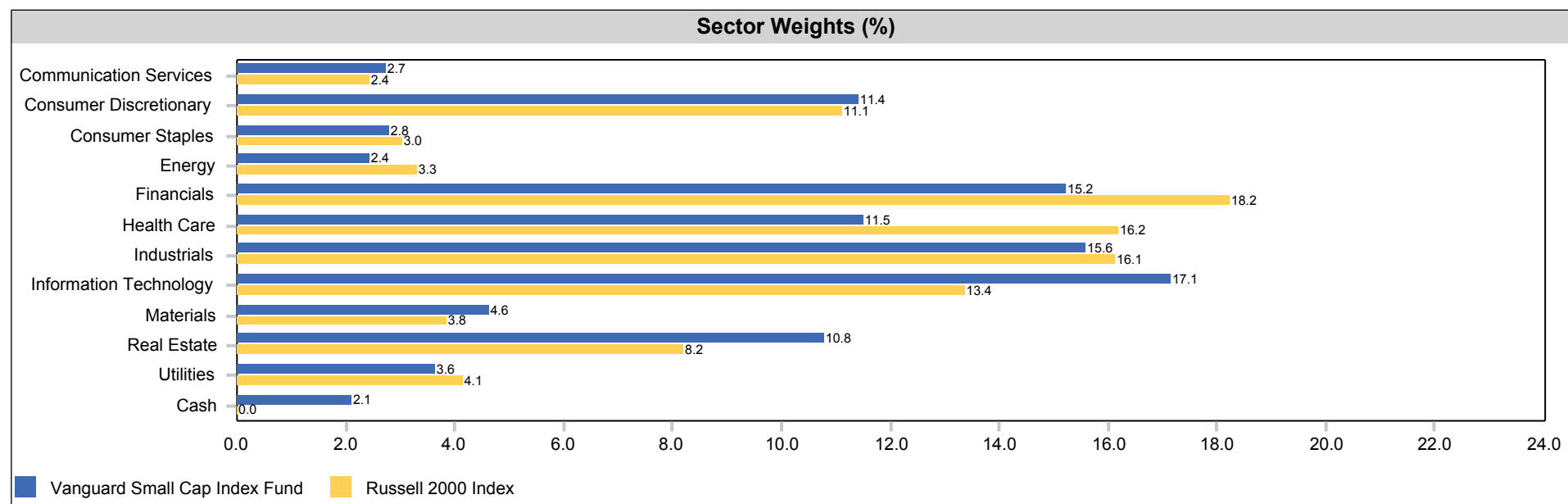
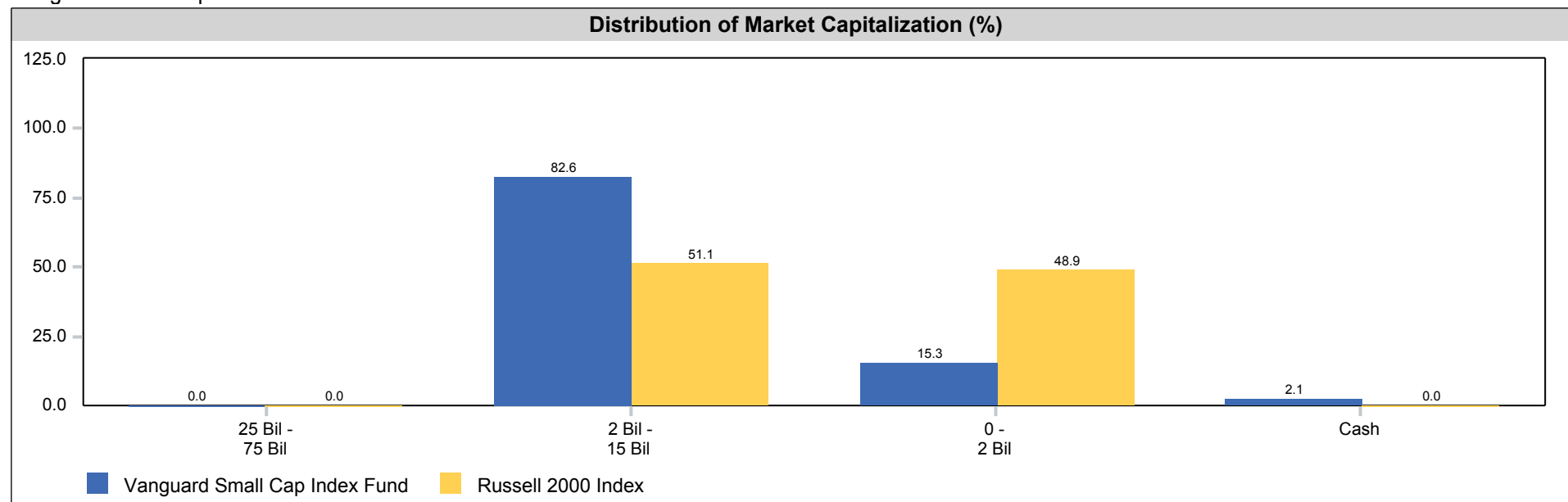
<b>Top Ten Equity Holdings</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
CASH	2.11	0.00	2.11	N/A
Atmos Energy Corp	0.37	0.00	0.37	8.41
Burlington Stores Inc	0.36	0.00	0.36	17.44
IDEX Corp	0.34	0.00	0.34	-4.52
Leidos Holdings Inc	0.34	0.00	0.34	7.98
Steris Plc	0.34	0.00	0.34	-2.70
Teledyne Technologies Inc.	0.32	0.00	0.32	17.57
Zebra Technologies Corp.	0.31	0.00	0.31	-1.49
Equity Lifestyle Properties Inc	0.30	0.00	0.30	10.60
UGI Corp	0.29	0.00	0.29	-5.25
% of Portfolio	5.08	0.00	5.08	

<b>Ten Best Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
WW International Inc	0.05	0.09	-0.04	98.01
Infinera Corp	0.03	0.05	-0.02	87.28
Owens & Minor Inc.	0.00	0.02	-0.02	81.63
Allakos Inc	0.06	0.08	-0.02	81.47
Cloudera Inc	0.06	0.11	-0.05	68.44
Stamps.com Inc	0.03	0.06	-0.03	64.46
Alder BioPharmaceuticals Inc	0.04	0.07	-0.03	60.24
Carbon Black Inc	0.03	0.08	-0.05	55.44
Gogo Inc	0.01	0.02	-0.01	51.51
RH	0.07	0.15	-0.08	47.78
% of Portfolio	0.38	0.73	-0.35	

<b>Ten Worst Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
McDermott International Inc.	0.01	0.02	-0.01	-79.09
Mallinckrodt Plc	0.00	0.01	-0.01	-73.75
Clovis Oncology Inc	0.00	0.01	-0.01	-73.57
Bloom Energy Corp	0.00	0.01	-0.01	-73.51
Acorda Therapeutics Inc	0.00	0.01	-0.01	-62.58
Unit Corp	0.00	0.01	-0.01	-61.98
FTS International Inc	0.00	0.00	0.00	-59.86
Amneal Pharmaceuticals Inc	0.01	0.01	0.00	-59.55
KLX Energy Services Holdings Inc	0.00	0.01	-0.01	-57.68
Whiting Petroleum Corp	0.02	0.04	-0.02	-57.01
% of Portfolio	0.04	0.13	-0.09	



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



Vanguard Small Cap Index Fund vs. Russell 2000 Index

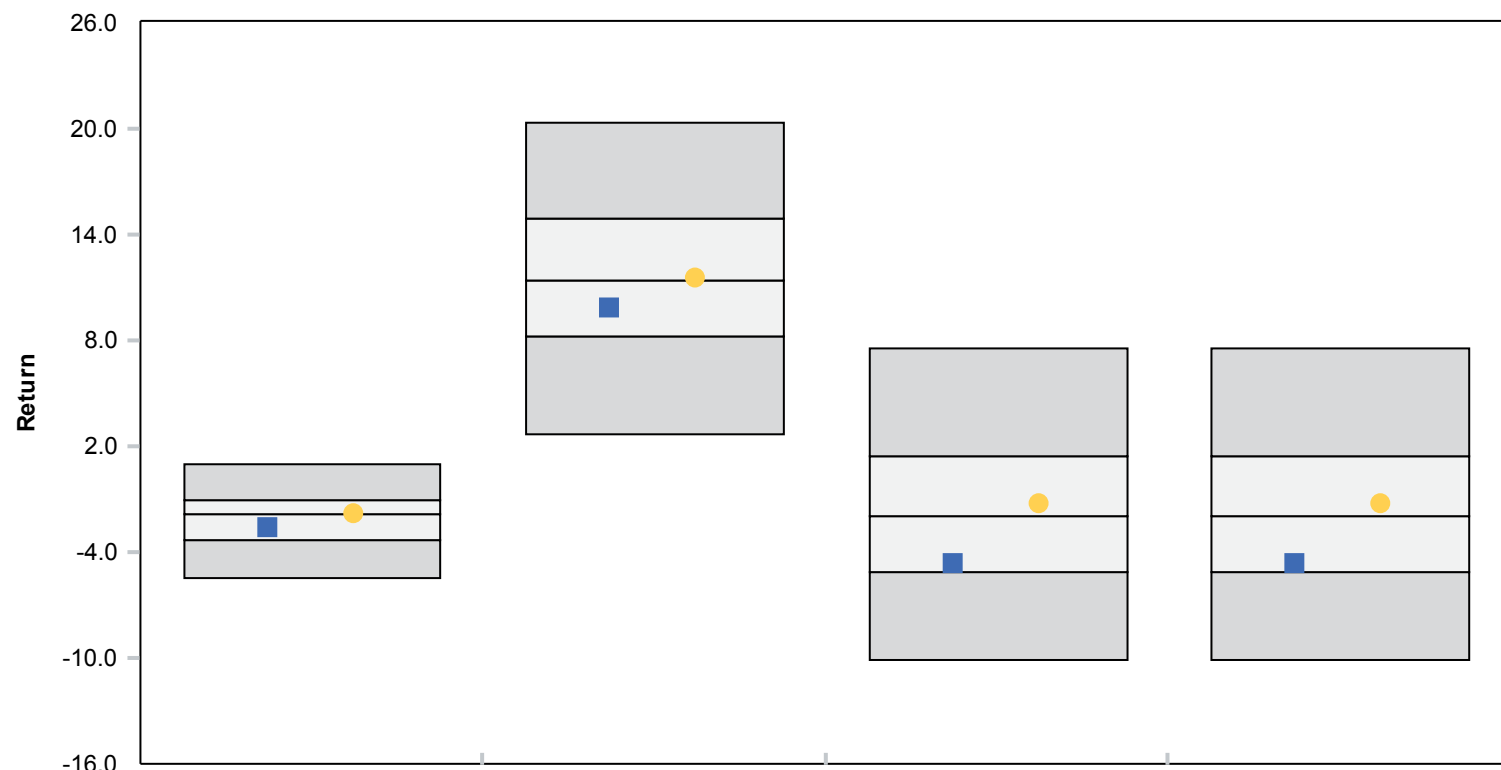
Buy-and-Hold Portfolio	-1.36
Portfolio Trading	-0.09
Actual Return	-1.45
Benchmark Return	-2.40
Actual Active Return	0.95
Stock Selection	0.23
Sector Selection	0.40
Interaction	0.02
Total Selection	0.65
Portfolio Trading	-0.09
Benchmark Trading	-0.39
Active Trading Impact	0.30
Buy & Hold Active Return	0.95

	Allocation-07/01/2019		Performance-1 Quarter Ending September 30, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	2.94	3.02	-7.24	-7.72	0.01	0.00	0.00	0.02
Consumer Discretionary	11.15	11.75	0.11	-1.17	0.15	0.00	-0.01	0.14
Consumer Staples	2.62	2.66	3.75	4.58	-0.02	0.00	0.00	-0.02
Energy	3.07	3.29	-22.57	-18.60	-0.13	0.04	0.01	-0.09
Financials	14.69	17.63	0.68	-0.55	0.22	-0.04	-0.04	0.14
Health Care	12.32	15.85	-8.03	-8.22	0.03	0.22	-0.01	0.24
Industrials	15.33	15.34	-1.32	-0.02	-0.20	0.00	0.00	-0.20
Information Technology	17.09	15.31	-0.76	-1.12	0.05	0.02	0.01	0.08
Materials	4.74	3.76	-4.51	-5.40	0.03	-0.03	0.01	0.01
Real Estate	10.16	7.49	6.74	5.26	0.11	0.19	0.04	0.34
Utilities	3.31	3.89	5.35	5.95	-0.02	-0.05	0.00	-0.07
Other	0.15	0.00	7.28	0.00	0.00	0.01	0.00	0.01
Cash	2.44	0.00	0.00	0.00	0.00	0.05	0.00	0.05
Total	100.00	100.00	-1.36	-2.01	0.23	0.40	0.02	0.65





IM International Equity (MF)



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

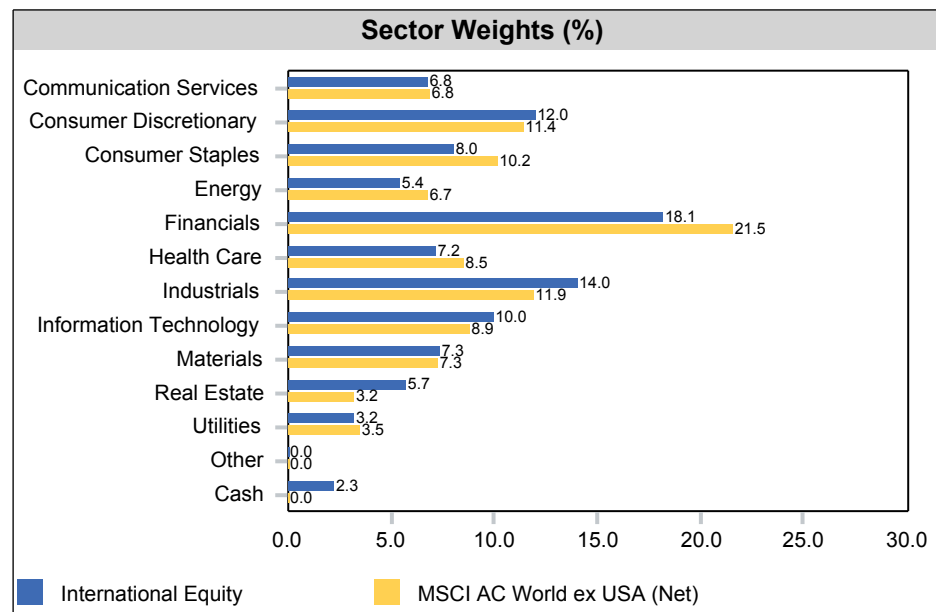
5th Percentile	0.97	20.34	7.49	7.49
1st Quartile	-1.00	14.86	1.42	1.42
Median	-1.90	11.44	-1.94	-1.94
3rd Quartile	-3.29	8.21	-5.12	-5.12
95th Percentile	-5.47	2.65	-10.10	-10.10
Population	3,246	3,163	3,102	3,102

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

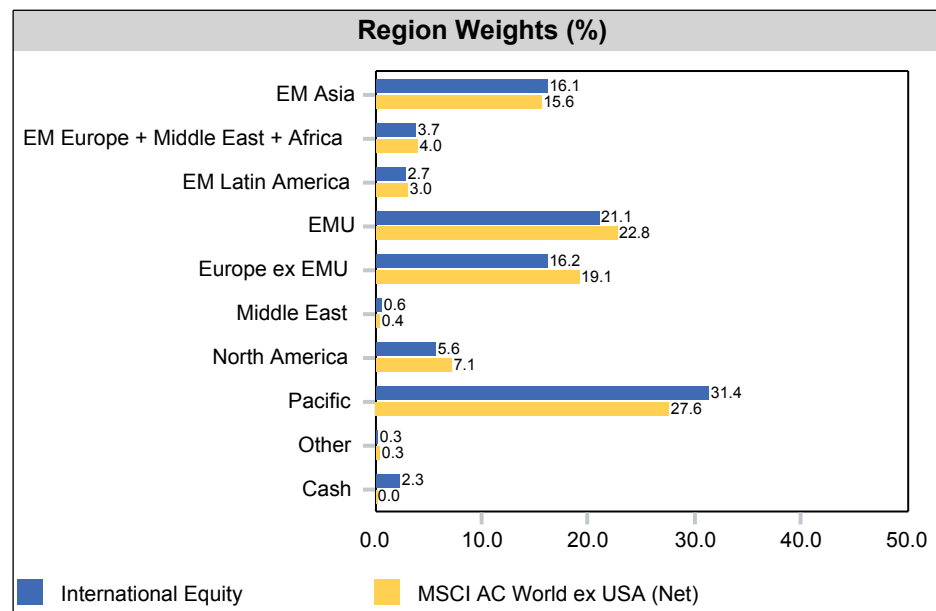


International Equity vs. MSCI AC World ex USA (Net)

Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	47,140	66,278
Median Mkt. Cap (\$M)	1,423	7,597
Price/Earnings ratio	14.21	14.41
Price/Book ratio	2.19	2.27
5 Yr. EPS Growth Rate (%)	9.46	8.53
Current Yield (%)	3.12	3.36
Number of Stocks	7,901	2,215



Top Ten Equity Holdings			
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)
CASH	2.27	0.00	2.27
Samsung Electronics Co Ltd	1.34	0.95	0.39
Tencent Holdings LTD	1.04	1.17	-0.13
Alibaba Group Holding Ltd	1.03	1.16	-0.13
Nestle SA, Cham Und Vevey	1.03	1.62	-0.59
Taiwan Semicon Manufctrng Co Ltd	0.93	1.05	-0.12
Roche Holding AG	0.66	0.99	-0.33
Novartis AG	0.61	0.91	-0.30
Toyota Motor Corp	0.55	0.74	-0.19
Royal Dutch Shell PLC	0.41	0.62	-0.21
% of Portfolio	9.87	9.21	0.66



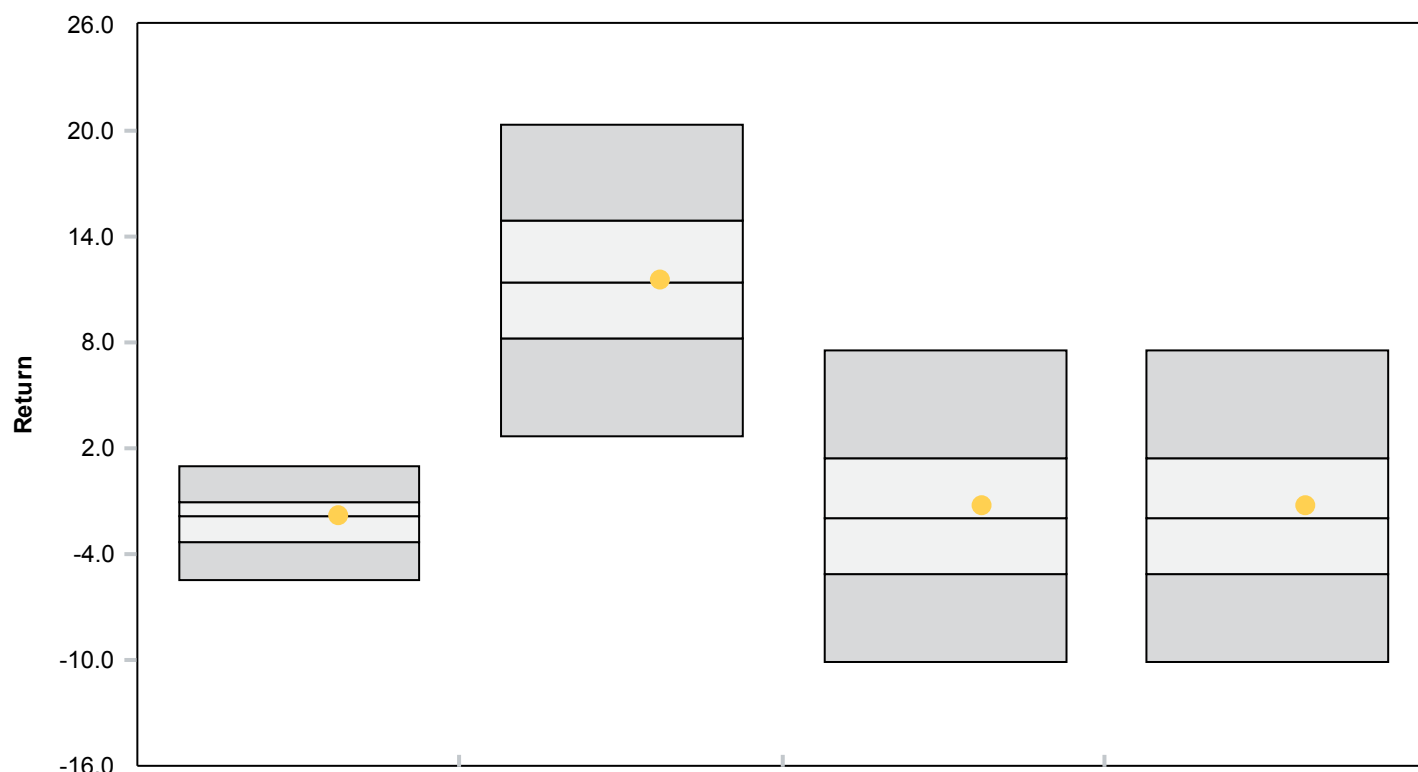
International Equity vs. MSCI AC World ex USA (Net)

Buy-and-Hold Portfolio	-1.23
Portfolio Trading	-1.37
Actual Return	-2.59
Benchmark Return	-1.80
Actual Active Return	-0.79
Stock Selection	0.08
Sector Selection	0.02
Interaction	0.28
Total Selection	0.37
Portfolio Trading	-1.37
Benchmark Trading	-0.20
Active Trading Impact	-1.17
Buy & Hold Active Return	-0.79

	Allocation-07/01/2019		Performance-1 Quarter Ending September 30, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	6.41	6.91	-1.33	-2.82	0.10	0.01	-0.01	0.10
Consumer Discretionary	11.93	11.27	-0.13	-0.55	0.05	0.01	0.00	0.06
Consumer Staples	7.39	9.84	0.92	1.56	-0.06	-0.08	0.02	-0.12
Energy	4.89	7.15	-4.56	-4.31	-0.02	0.06	0.01	0.05
Financials	16.62	21.91	-3.00	-3.16	0.04	0.08	-0.01	0.11
Health Care	7.31	8.27	-1.00	1.20	-0.18	-0.03	0.02	-0.19
Industrials	16.00	11.94	-2.93	-2.36	-0.07	-0.03	-0.02	-0.12
Information Technology	9.46	8.54	2.15	2.38	-0.02	0.04	0.00	0.01
Materials	7.76	7.64	-6.14	-6.21	0.01	-0.01	0.00	0.00
Real Estate	7.29	3.25	3.88	-2.92	0.22	-0.05	0.27	0.44
Utilities	2.90	3.29	2.08	1.58	0.02	-0.01	0.00	0.00
Cash	2.05	0.00	0.00	0.00	0.00	0.03	0.00	0.03
Total	100.00	100.00	-1.23	-1.60	0.08	0.02	0.28	0.37



IM International Equity (MF)



■ Vanguard Total Intl Stock Index Fund

● MSCI AC World ex USA (Net)

5th Percentile

0.97

20.34

7.49

7.49

1st Quartile

-1.00

14.86

1.42

1.42

Median

-1.90

11.44

-1.94

-1.94

3rd Quartile

-3.29

8.21

-5.12

-5.12

95th Percentile

-5.47

2.65

-10.10

-10.10

Population

3,246

3,163

3,102

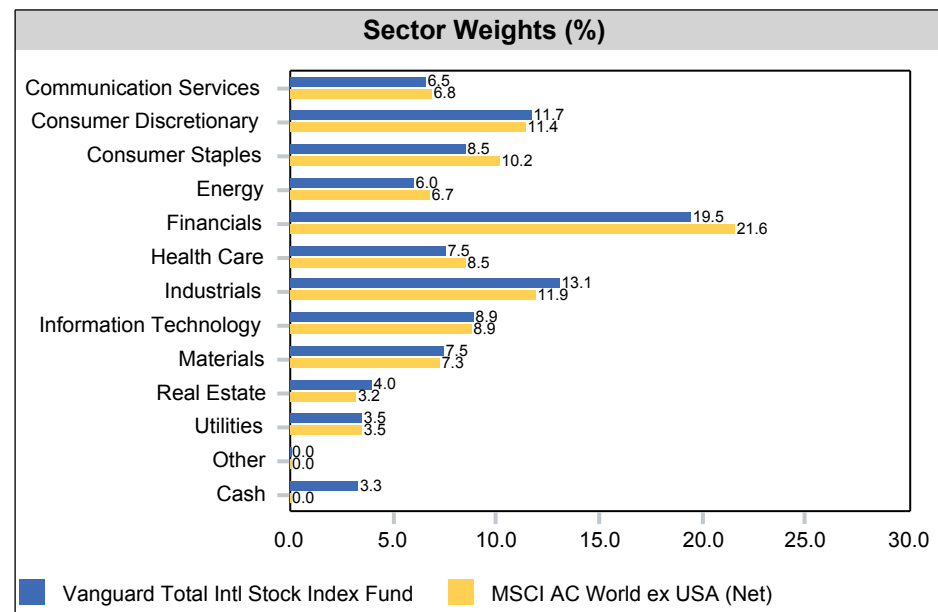
3,102

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

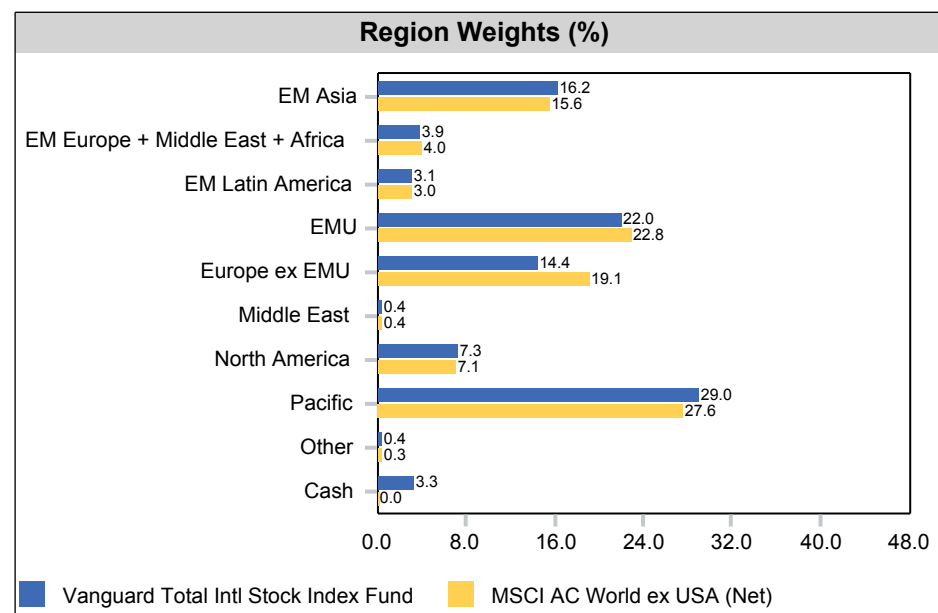


Vanguard Total Intl Stock Index Fund vs. MSCI AC World ex USA (Net)

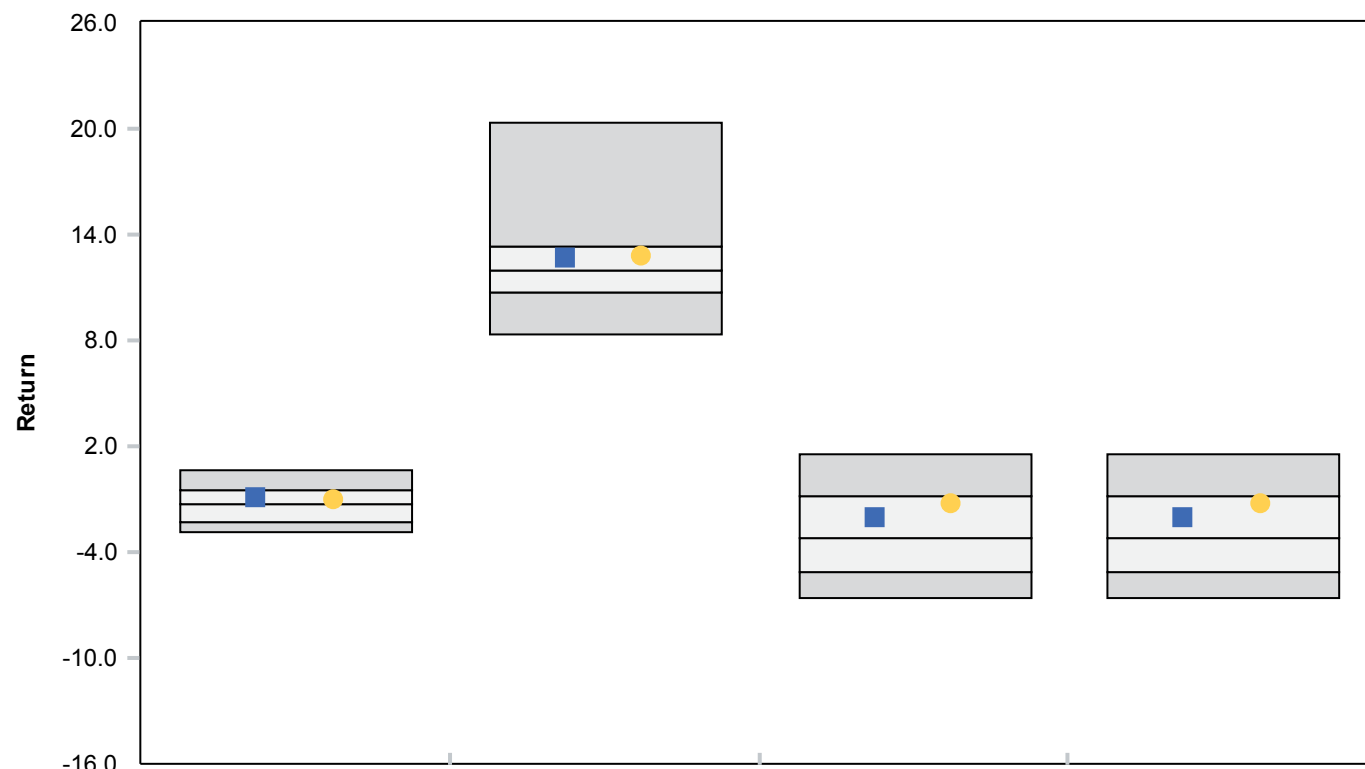
Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	54,485	66,278
Median Mkt. Cap (\$M)	1,513	7,597
Price/Earnings ratio	14.27	14.41
Price/Book ratio	2.22	2.27
5 Yr. EPS Growth Rate (%)	9.19	8.53
Current Yield (%)	3.20	3.36
Number of Stocks	7,457	2,215



Top Ten Equity Holdings			
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)
CASH	3.25	0.00	3.25
Nestle SA, Cham Und Vevey	1.36	1.62	-0.26
Tencent Holdings LTD	1.04	1.17	-0.13
Alibaba Group Holding Ltd	1.04	1.16	-0.12
Taiwan Semicon Manufctrng Co Ltd	0.91	1.05	-0.14
Roche Holding AG	0.87	0.99	-0.12
Samsung Electronics Co Ltd	0.83	0.95	-0.12
Novartis AG	0.81	0.91	-0.10
Toyota Motor Corp	0.72	0.74	-0.02
Royal Dutch Shell PLC	0.55	0.62	-0.07
% of Portfolio	11.38	9.21	2.17



IM International Large Cap Core Equity (MF)



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

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

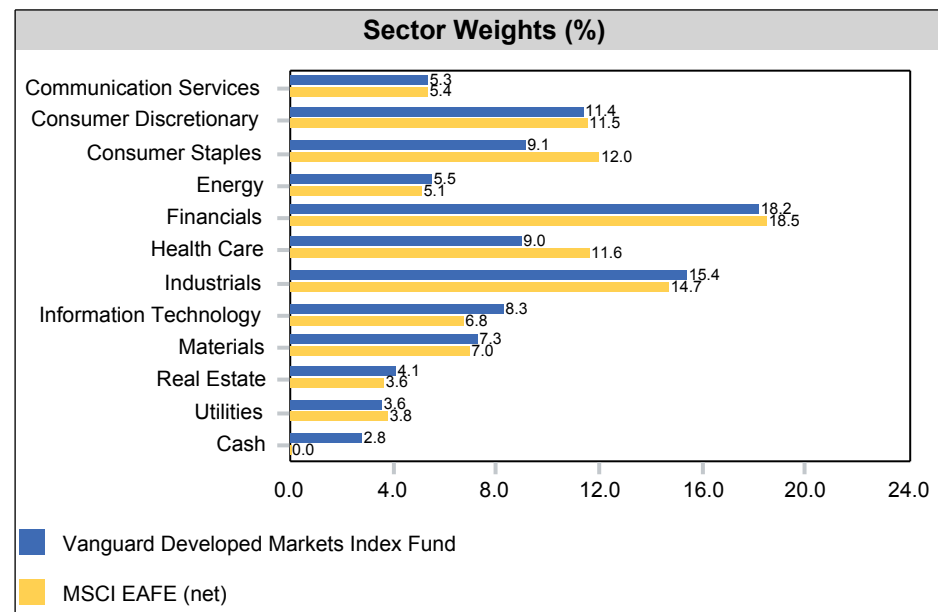
Current Quarter	Year To Date	Trailing 12-months	Fiscal Year To Date
-0.99 (42)	12.63 (38)	-2.08 (31)	-2.08 (31)
-1.07 (43)	12.80 (36)	-1.34 (29)	-1.34 (29)
0.59	20.32	1.55	1.55
-0.53	13.38	-0.80	-0.80
-1.28	12.00	-3.16	-3.16
-2.36	10.69	-5.09	-5.09
-2.88	8.32	-6.60	-6.60
Population	96	91	91

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

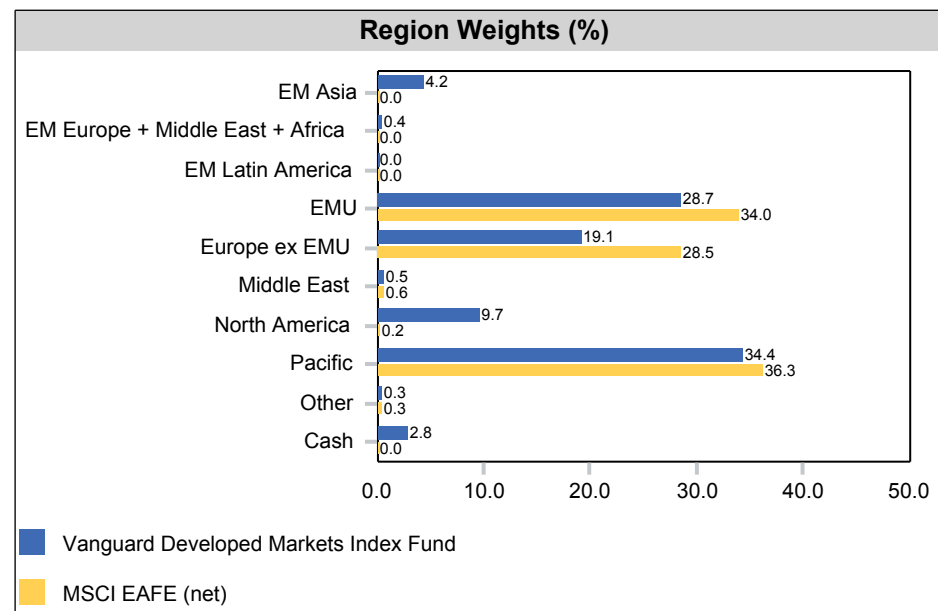


Vanguard Developed Markets Index Fund vs. MSCI EAFE (net)

Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	50,635	63,391
Median Mkt. Cap (\$M)	1,578	10,159
Price/Earnings ratio	14.73	15.24
Price/Book ratio	2.16	2.30
5 Yr. EPS Growth Rate (%)	8.28	7.44
Current Yield (%)	3.26	3.52
Number of Stocks	3,962	923



Top Ten Equity Holdings			
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)
CASH	2.76	0.00	2.76
Nestle SA, Cham Und Vevey	1.81	2.41	-0.60
Roche Holding AG	1.16	1.48	-0.32
Novartis AG	1.08	1.35	-0.27
Samsung Electronics Co Ltd	1.04	0.00	1.04
Toyota Motor Corp	0.96	1.11	-0.15
Royal Dutch Shell PLC	0.73	0.93	-0.20
TOTAL SA	0.73	0.91	-0.18
Royal Bank of Canada	0.68	0.00	0.68
AIA Group Ltd	0.66	0.83	-0.17
% of Portfolio	11.61	9.02	2.59



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

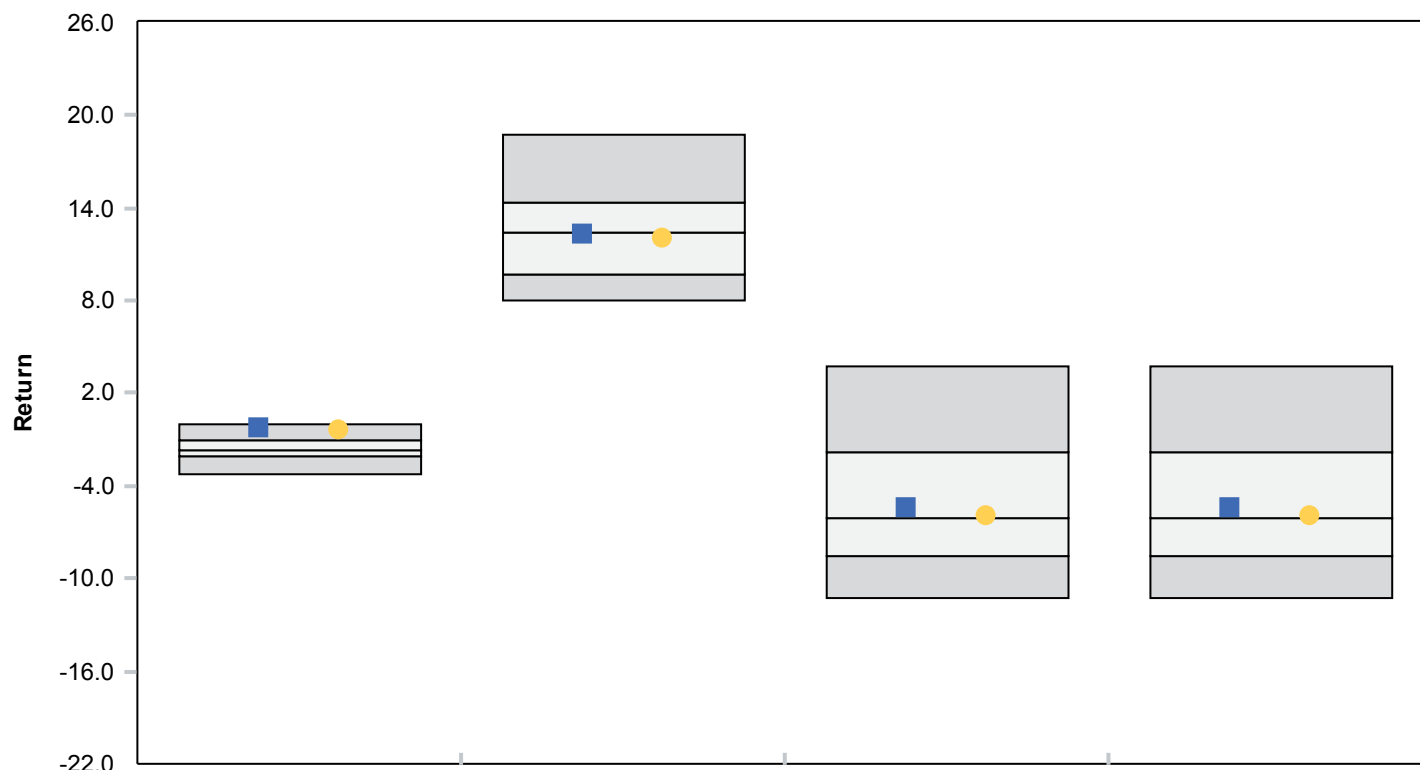
Buy-and-Hold Portfolio	-0.90
Portfolio Trading	-0.09
Actual Return	-0.99
Benchmark Return	-1.07
Actual Active Return	0.08
Stock Selection	0.13
Sector Selection	-0.15
Interaction	0.07
Total Selection	0.05
Portfolio Trading	-0.09
Benchmark Trading	-0.12
Active Trading Impact	0.03
Buy & Hold Active Return	0.08

	Allocation-07/01/2019		Performance-1 Quarter Ending September 30, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	5.30	5.39	-0.35	-0.79	0.02	0.00	0.00	0.02
Consumer Discretionary	11.03	11.12	0.33	0.47	-0.02	0.00	0.00	-0.02
Consumer Staples	8.96	11.67	1.99	1.92	0.01	-0.08	0.00	-0.07
Energy	5.78	5.61	-4.12	-6.23	0.12	-0.01	0.00	0.11
Financials	18.19	18.90	-1.08	-2.48	0.26	0.01	-0.01	0.27
Health Care	8.88	11.16	-0.33	2.48	-0.31	-0.08	0.06	-0.33
Industrials	15.65	14.83	-2.32	-1.90	-0.06	-0.01	0.00	-0.07
Information Technology	8.09	6.71	0.36	-0.41	0.05	0.01	0.01	0.07
Materials	7.70	7.38	-5.09	-5.31	0.02	-0.01	0.00	0.00
Real Estate	4.01	3.61	0.01	-1.08	0.04	0.00	0.00	0.04
Utilities	3.39	3.61	2.71	2.72	0.00	-0.01	0.00	-0.01
Cash	3.03	0.00	0.00	0.00	0.00	0.03	0.00	0.03
Total	100.00	100.00	-0.90	-0.95	0.13	-0.15	0.07	0.05





IM International Small Cap Core Equity (SA+CF)



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

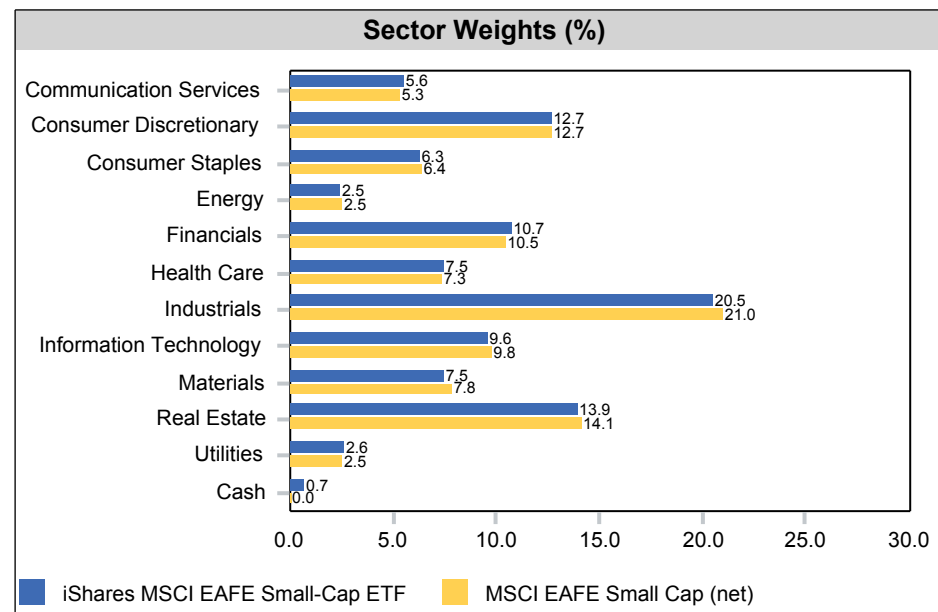
	Current Quarter	Year To Date	Trailing 12-months	Fiscal Year To Date
	-0.30 (12)	12.26 (53)	-5.39 (43)	-5.39 (43)
	-0.44 (15)	12.05 (54)	-5.93 (49)	-5.93 (49)
5th Percentile	0.03	18.81	3.69	3.69
1st Quartile	-0.99	14.33	-1.78	-1.78
Median	-1.64	12.35	-6.03	-6.03
3rd Quartile	-2.13	9.71	-8.58	-8.58
95th Percentile	-3.28	7.99	-11.28	-11.28
Population	45	45	44	44

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

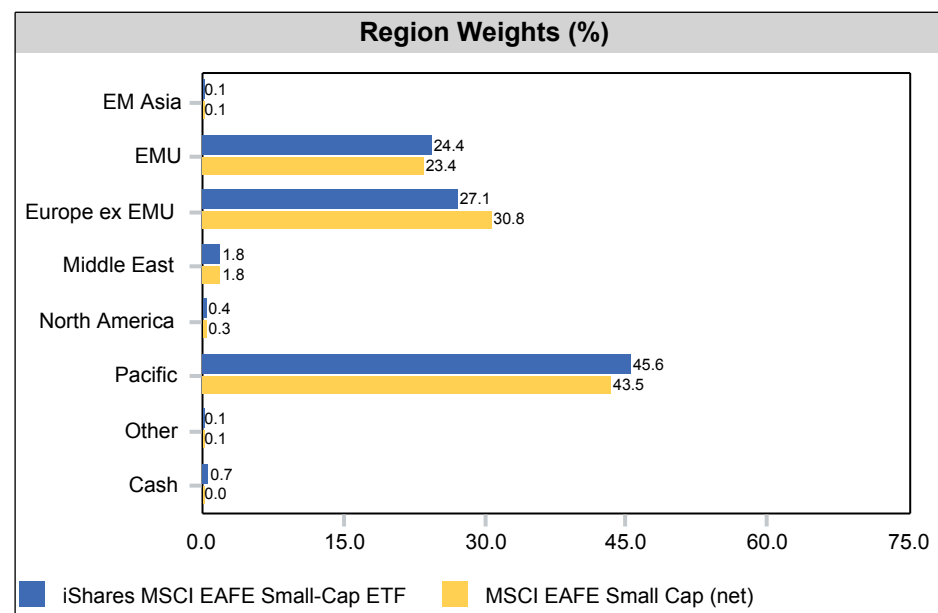


iShares MSCI EAFE Small-Cap ETF vs. MSCI EAFE Small Cap (net)

Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	2,584	2,583
Median Mkt. Cap (\$M)	974	983
Price/Earnings ratio	14.57	14.82
Price/Book ratio	2.13	2.13
5 Yr. EPS Growth Rate (%)	10.65	10.10
Current Yield (%)	2.87	2.87
Number of Stocks	2,354	2,337



Top Ten Equity Holdings			
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)
CASH	0.69	0.00	0.69
LEG Immobilien AG	0.34	0.32	0.02
Logitech International SA, Apples	0.31	0.29	0.02
Galapagos NV	0.31	0.29	0.02
Rightmove PLC	0.30	0.26	0.04
Orix Jreit Inc	0.28	0.25	0.03
Hiscox Ltd	0.28	0.26	0.02
InterXion Holding NV	0.28	0.26	0.02
Scout24 AG	0.27	0.27	0.00
Orpea, Puteaux	0.27	0.24	0.03
% of Portfolio	3.33	2.44	0.89



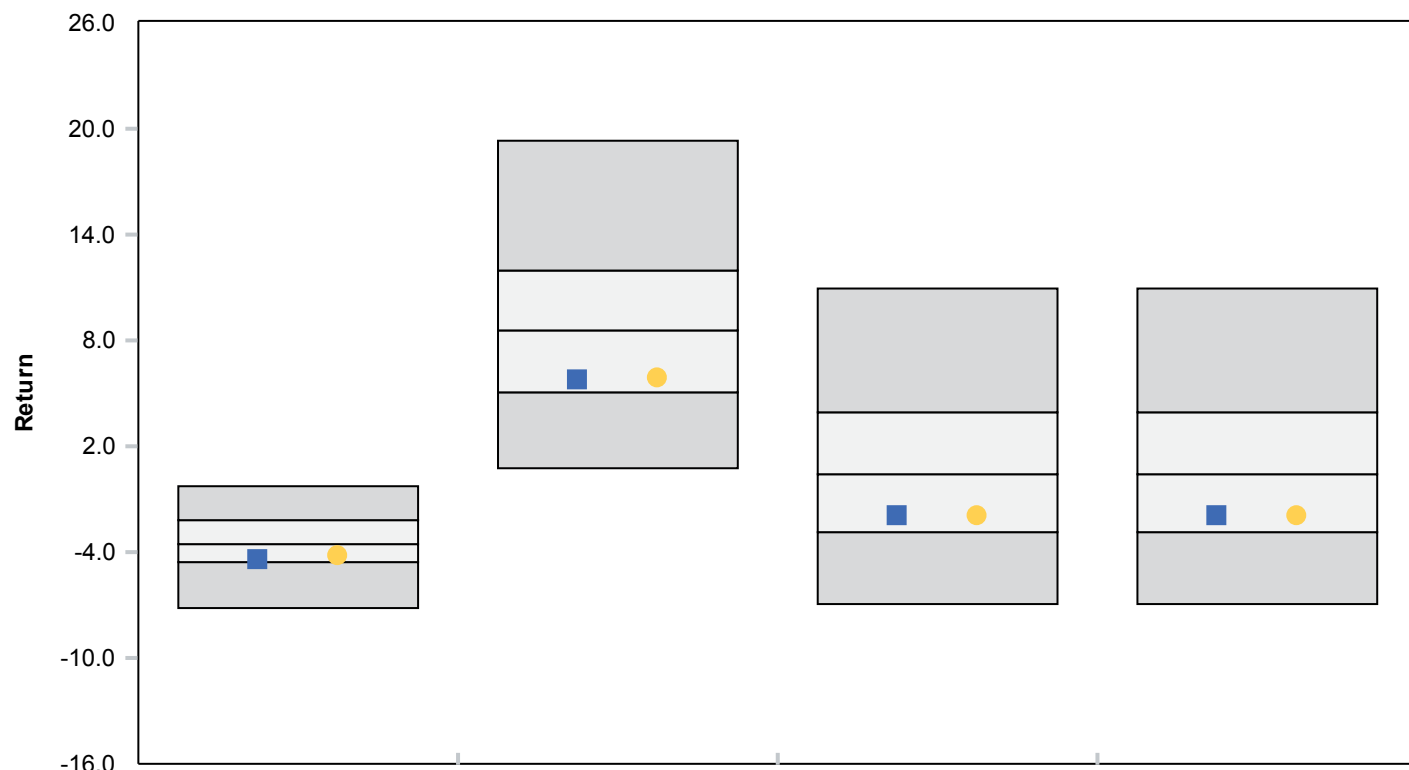
iShares MSCI EAFE Small-Cap ETF vs. MSCI EAFE Small Cap (net)

Buy-and-Hold Portfolio	-0.45
Portfolio Trading	0.16
Actual Return	-0.30
Benchmark Return	-0.44
Actual Active Return	0.14
Stock Selection	-0.12
Sector Selection	0.03
Interaction	0.00
Total Selection	-0.10
Portfolio Trading	0.16
Benchmark Trading	-0.08
Active Trading Impact	0.24
Buy & Hold Active Return	0.14

	Allocation-07/01/2019		Performance-1 Quarter Ending September 30, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	5.38	5.14	1.20	1.93	-0.04	0.01	0.00	-0.03
Consumer Discretionary	12.38	12.43	0.71	0.71	0.00	0.00	0.00	0.00
Consumer Staples	6.13	6.32	-0.05	0.13	-0.01	0.00	0.00	-0.01
Energy	2.62	2.70	-7.17	-6.97	-0.01	0.01	0.00	0.00
Financials	11.15	10.88	-2.32	-2.53	0.02	-0.01	0.00	0.02
Health Care	7.69	7.61	-1.07	-1.07	0.00	0.00	0.00	0.00
Industrials	21.21	21.50	-3.18	-2.61	-0.12	0.01	0.00	-0.11
Information Technology	9.12	9.39	1.42	1.34	0.01	0.00	0.00	0.00
Materials	8.00	8.56	-5.67	-5.48	-0.02	0.03	0.00	0.01
Real Estate	12.86	13.06	6.46	6.26	0.03	-0.01	0.00	0.01
Utilities	2.51	2.41	3.80	3.32	0.01	0.00	0.00	0.02
Cash	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	100.00	100.00	-0.45	-0.35	-0.12	0.03	0.00	-0.10



IM Emerging Markets Equity (SA+CF+MF)



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

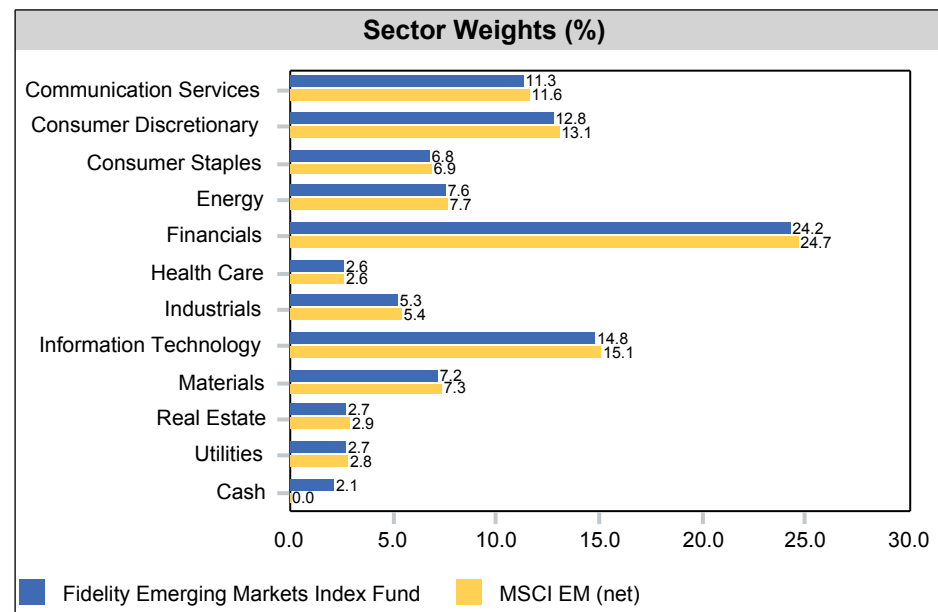
5th Percentile	-0.32	19.37	10.93	10.93
1st Quartile	-2.18	11.98	3.93	3.93
Median	-3.53	8.54	0.39	0.39
3rd Quartile	-4.62	5.03	-2.84	-2.84
95th Percentile	-7.12	0.70	-6.96	-6.96
Population	1,309	1,288	1,258	1,258

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

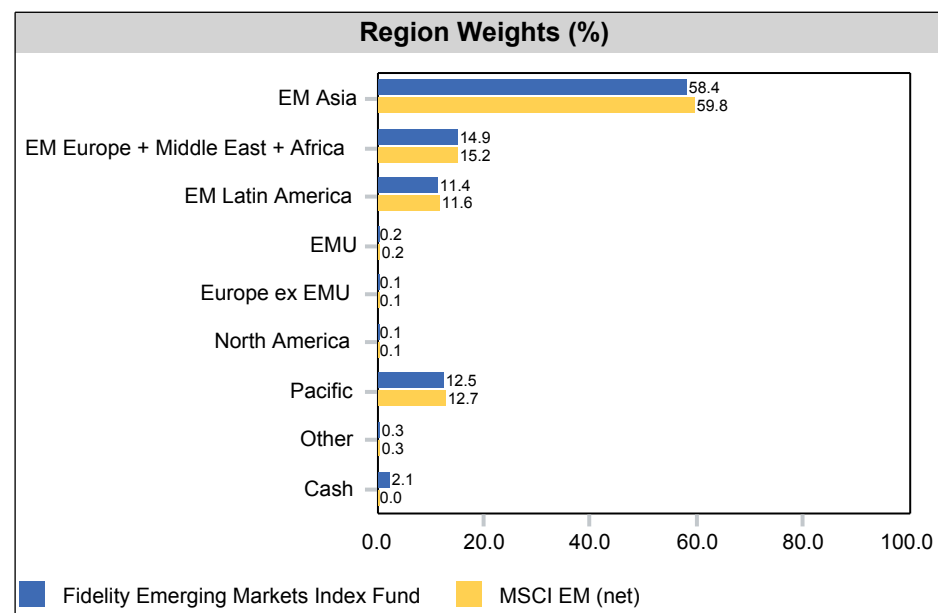


Fidelity Emerging Markets Index Fund vs. MSCI EM (net)

Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	76,755	79,064
Median Mkt. Cap (\$M)	5,122	5,158
Price/Earnings ratio	12.78	12.70
Price/Book ratio	2.31	2.32
5 Yr. EPS Growth Rate (%)	11.55	11.62
Current Yield (%)	3.01	3.01
Number of Stocks	1,270	1,202



Top Ten Equity Holdings			
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)
Tencent Holdings LTD	4.41	4.49	-0.08
Alibaba Group Holding Ltd	4.36	4.44	-0.08
Taiwan Semicon Manufctrng Co Ltd	3.95	4.03	-0.08
Samsung Electronics Co Ltd	3.58	3.65	-0.07
CASH	2.09	0.00	2.09
China Construction Bank Corp	1.33	1.37	-0.04
Naspers Ltd	1.22	1.24	-0.02
Ping An Insurance Group	1.20	1.20	0.00
Reliance Industries Ltd	0.99	1.00	-0.01
China Mobile Ltd	0.93	0.95	-0.02
% of Portfolio	24.06	22.37	1.69



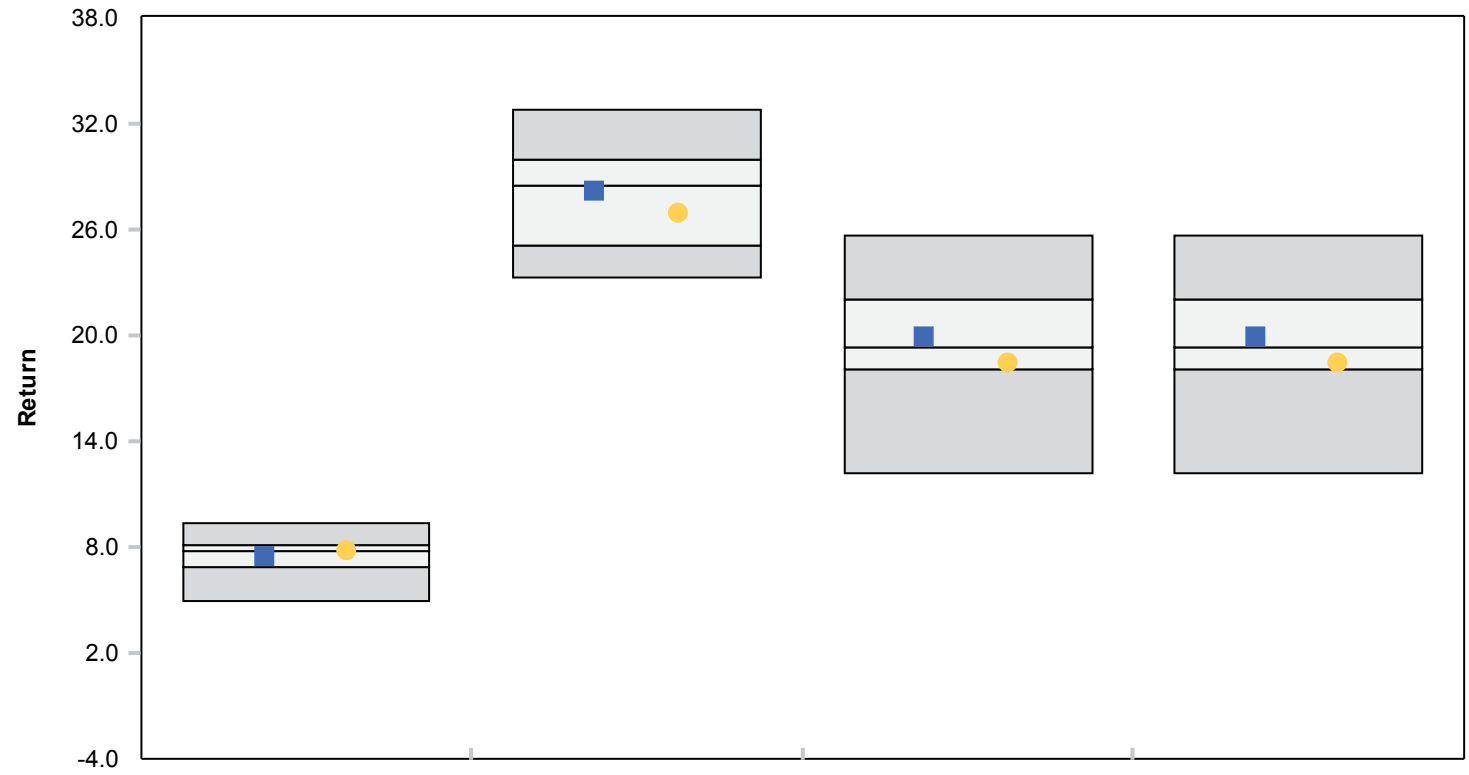
Fidelity Emerging Markets Index Fund vs. MSCI EM (net)

Buy-and-Hold Portfolio	-3.76
Portfolio Trading	-0.69
Actual Return	-4.45
Benchmark Return	-4.25
Actual Active Return	-0.21
Stock Selection	0.04
Sector Selection	0.07
Interaction	0.00
Total Selection	0.11
Portfolio Trading	-0.69
Benchmark Trading	-0.38
Active Trading Impact	-0.31
Buy & Hold Active Return	-0.21

	Allocation-07/01/2019		Performance-1 Quarter Ending September 30, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	11.45	11.69	-5.11	-5.12	0.00	0.00	0.00	0.00
Consumer Discretionary	13.17	13.44	-2.86	-2.86	0.00	0.00	0.00	0.00
Consumer Staples	6.35	6.59	-0.67	-0.71	0.00	-0.01	0.00	0.00
Energy	7.81	7.95	-3.41	-3.60	0.02	0.00	0.00	0.01
Financials	24.99	25.24	-7.11	-7.13	0.00	0.01	0.00	0.01
Health Care	2.59	2.63	-6.18	-6.59	0.01	0.00	0.00	0.01
Industrials	5.19	5.32	-5.14	-5.08	0.00	0.00	0.00	0.00
Information Technology	13.58	13.87	5.87	5.86	0.00	-0.03	0.00	-0.03
Materials	7.39	7.59	-9.94	-10.08	0.01	0.01	0.00	0.02
Real Estate	2.88	3.00	-8.68	-8.71	0.00	0.01	0.00	0.01
Utilities	2.55	2.69	-3.76	-3.46	-0.01	0.00	0.00	-0.01
Cash	2.06	0.00	0.00	0.00	0.00	0.08	0.00	0.08
Total	100.00	100.00	-3.76	-3.86	0.04	0.07	0.00	0.11



IM U.S. REIT (SA+CF)



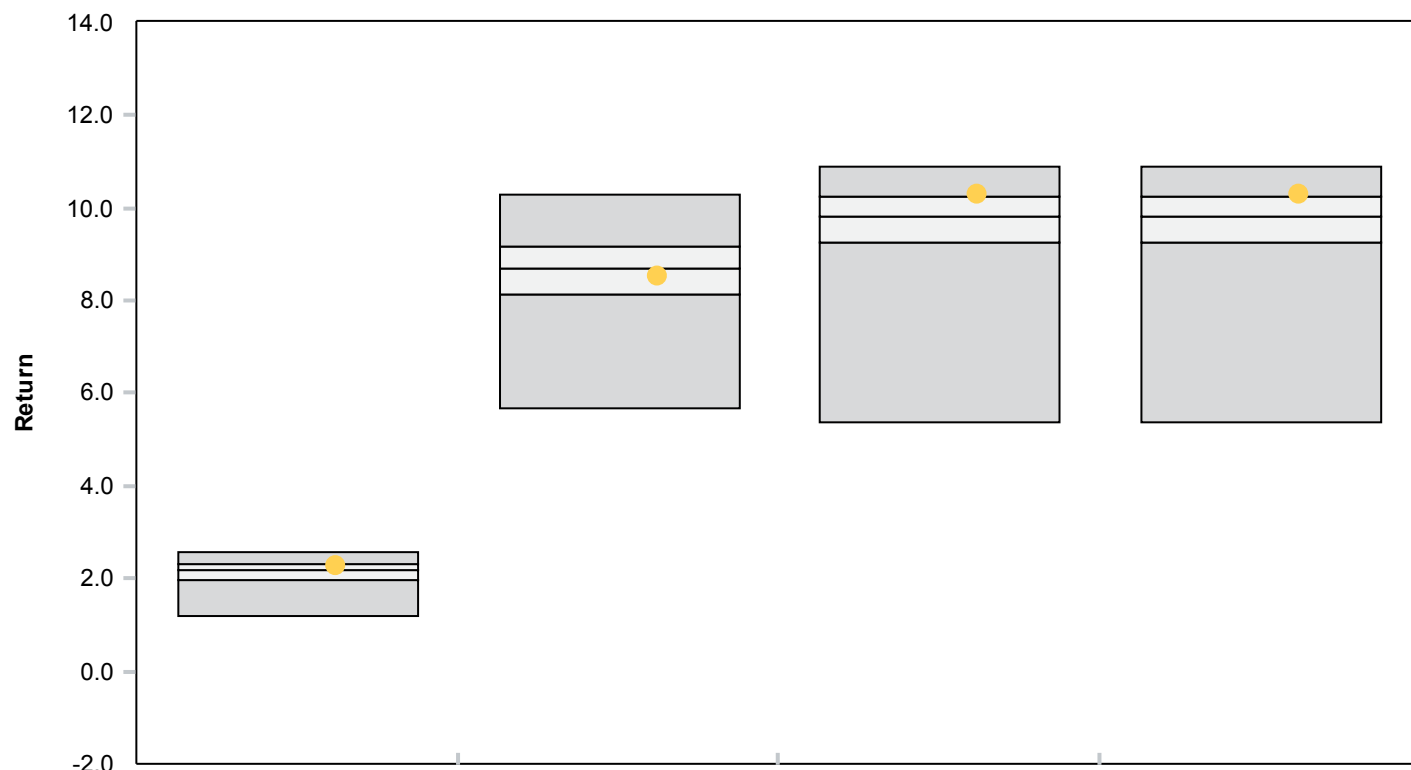
■ Vanguard Real Estate Index Fund  
● FTSE NAREIT Equity REIT Index

	Current Quarter	Year To Date	Trailing 12-months	Fiscal Year To Date
	7.40 (62)	28.14 (56)	19.89 (44)	19.89 (44)
	7.80 (41)	26.96 (66)	18.42 (70)	18.42 (70)
5th Percentile	9.36	32.84	25.63	25.63
1st Quartile	8.06	29.99	21.99	21.99
Median	7.72	28.44	19.32	19.32
3rd Quartile	6.83	25.11	18.02	18.02
95th Percentile	4.89	23.23	12.16	12.16
Population	44	44	44	44

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.  
Returns are net of fees and are expressed as percentages.  
4.42



IM U.S. Broad Market Core Fixed Income (MF)



■ Vanguard Total Bond Mkt Index Fund

● Blmbg. Barc. U.S. Aggregate

5th Percentile

1st Quartile

Median

3rd Quartile

95th Percentile

Population

**Current  
Quarter**

N/A

2.27 (33)

**Year  
To  
Date**

N/A

8.52 (57)

**Trailing  
12-months**

N/A

10.30 (24)

**Fiscal Year  
To Date**

N/A

10.30 (24)

2.57

2.32

2.16

1.95

1.19

522

10.29

9.17

8.68

8.12

5.66

517

10.89

10.27

9.81

9.24

5.38

511

10.89

10.27

9.81

9.24

5.38

511

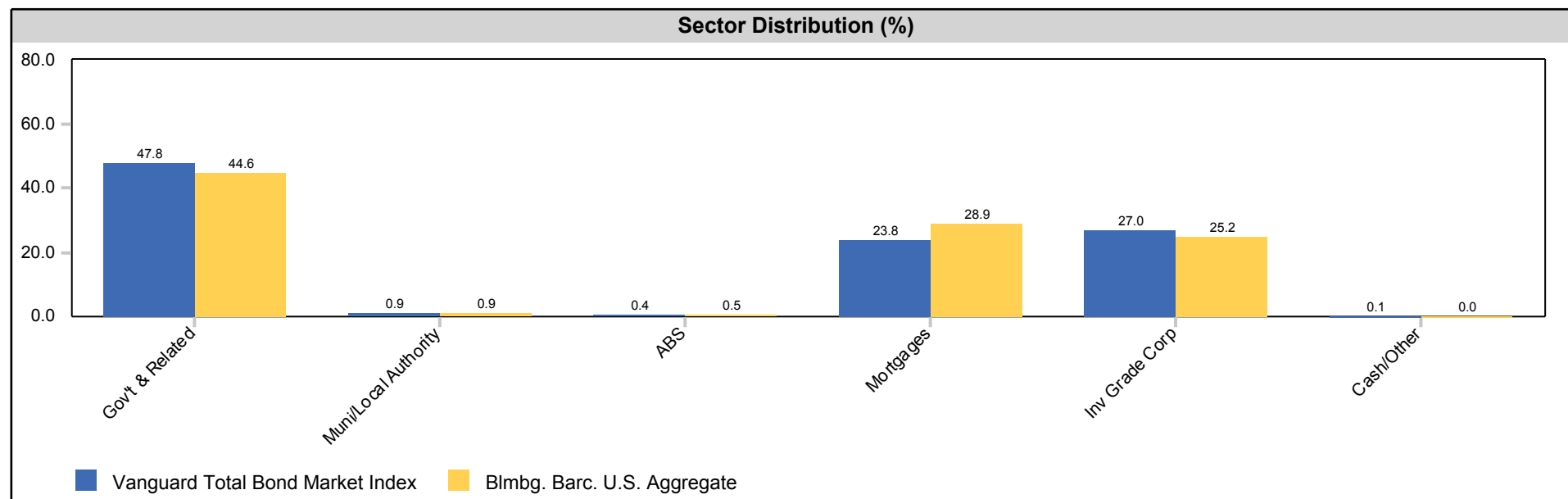
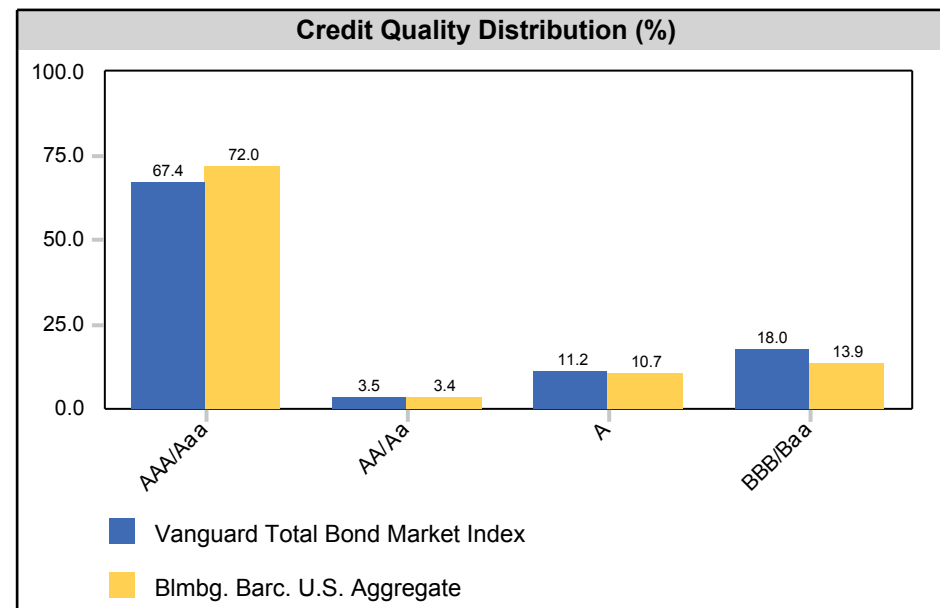
Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.  
Returns are net of fees and are expressed as percentages.



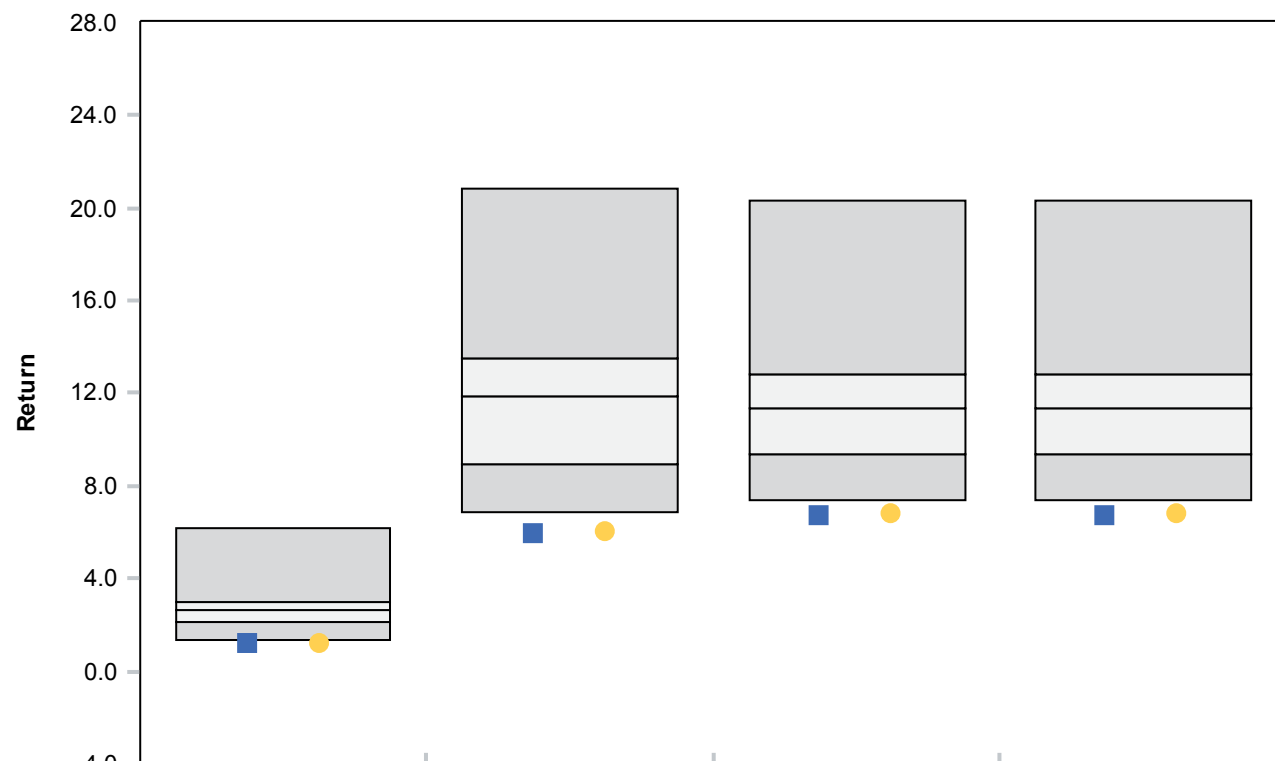


Vanguard Total Bond Market Index vs. Blmbg. Barc. U.S. Aggregate

Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	6.10	5.78
Yield To Maturity (%)	2.27	2.27
Avg. Maturity	8.30	7.92
Avg. Quality	AA	AA
Coupon Rate (%)	3.19	3.20



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
1.18 (97)	5.93 (99)	6.72 (97)	6.72 (97)
1.17 (97)	5.98 (99)	6.78 (96)	6.78 (96)

6.17	20.87	20.29	20.29
2.99	13.50	12.82	12.82
2.61	11.89	11.31	11.31
2.11	8.91	9.40	9.40
1.37	6.91	7.36	7.36

Population

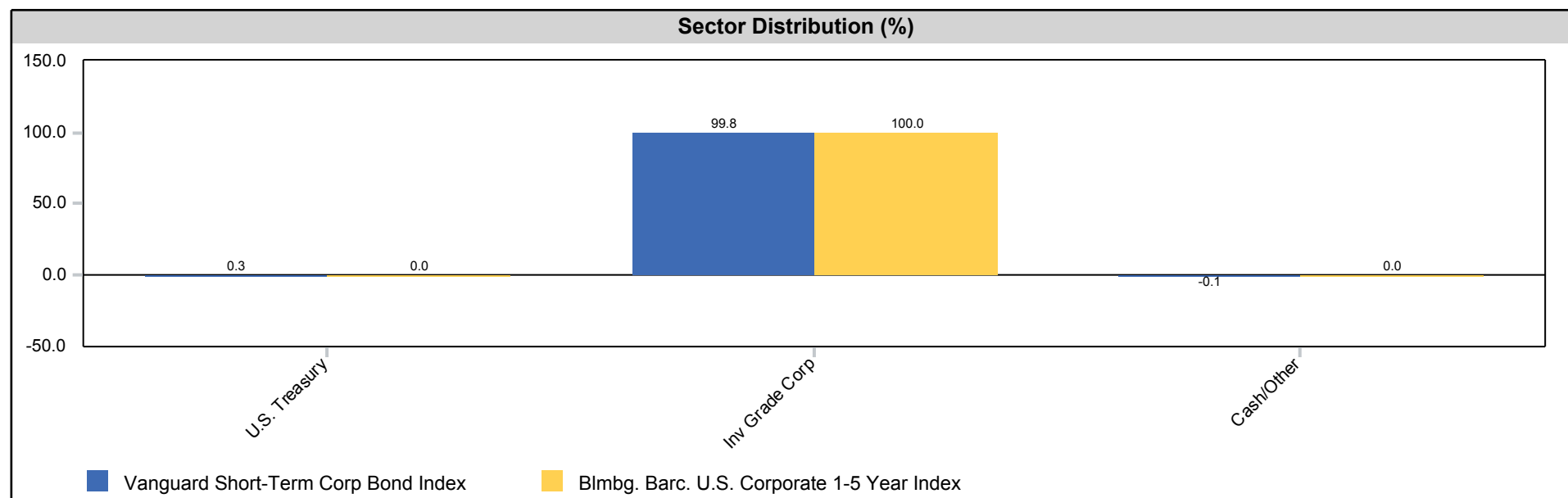
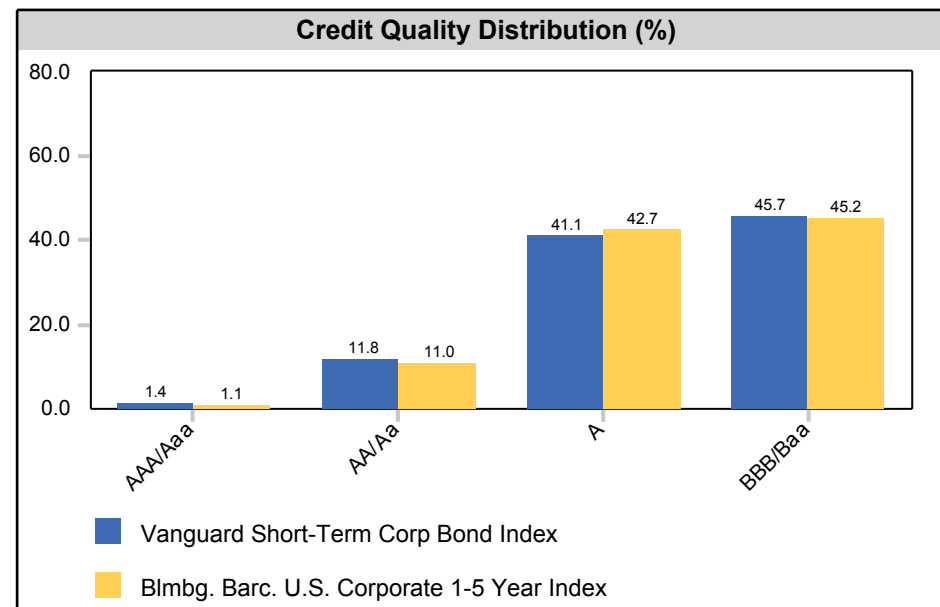
330	325	323	323
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Parentheses contain percentile rankings.  
 Calculation based on monthly periodicity.  
 Returns are net of fees and are expressed as percentages.  
 4.45

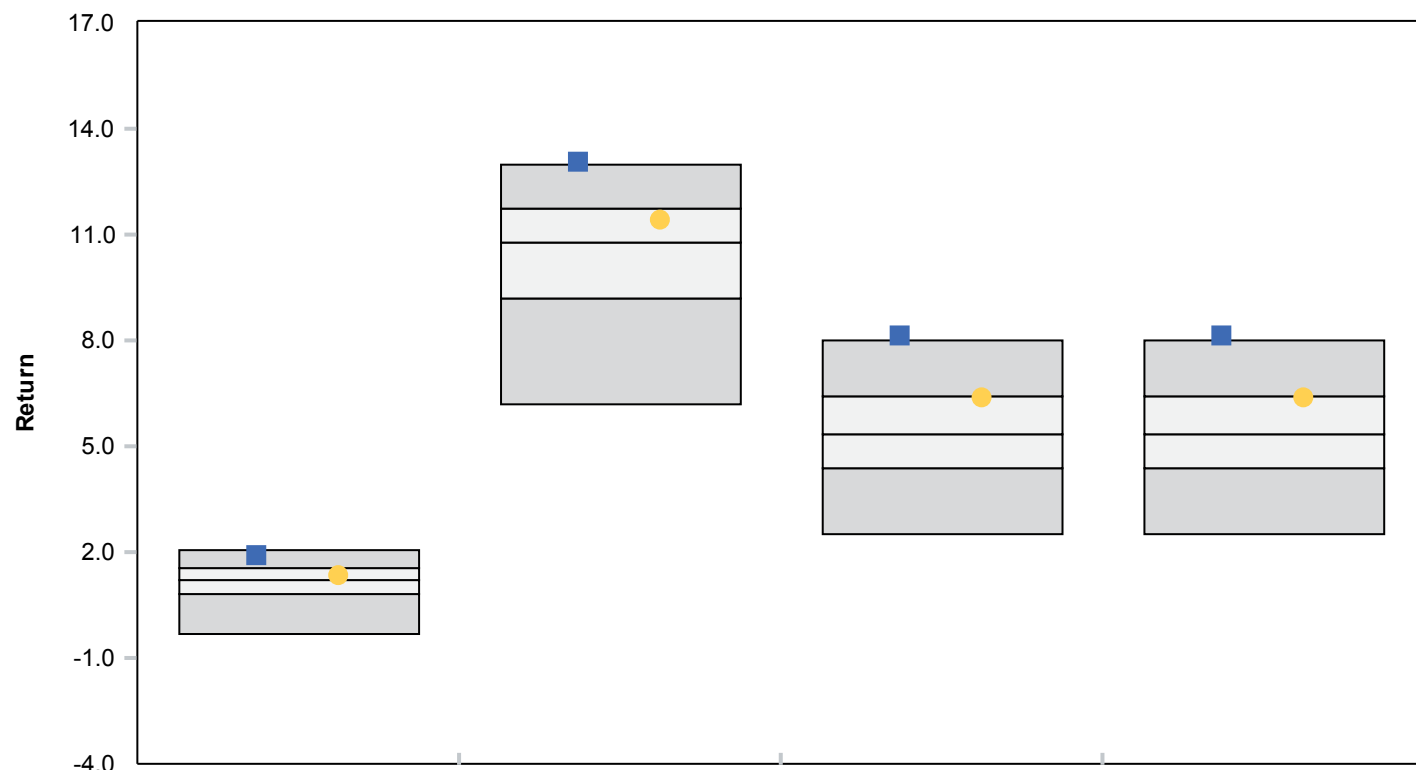


Vanguard Short-Term Corp Bond Index vs. Blmbg. Barc. U.S. Corporate 1-5 Year Index

Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	2.60	2.64
Yield To Maturity (%)	2.32	2.34
Avg. Maturity	2.90	2.89
Avg. Quality	A	A
Coupon Rate (%)	3.35	3.38



IM U.S. High Yield Bonds (MF)



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

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

Current Quarter  
 1.86 (10)  
 1.33 (41)  
 2.03  
 1.54  
 1.24  
 0.79  
 -0.33

Year To Date  
 13.05 (5)  
 11.41 (35)  
 12.96  
 11.73  
 10.78  
 9.16  
 6.18

Trailing 12-months  
 8.13 (4)  
 6.36 (27)  
 8.02  
 6.39  
 5.34  
 4.36  
 2.49

Fiscal Year To Date  
 8.13 (4)  
 6.36 (27)  
 8.02  
 6.39  
 5.34  
 4.36  
 2.49

Population

704

698

684

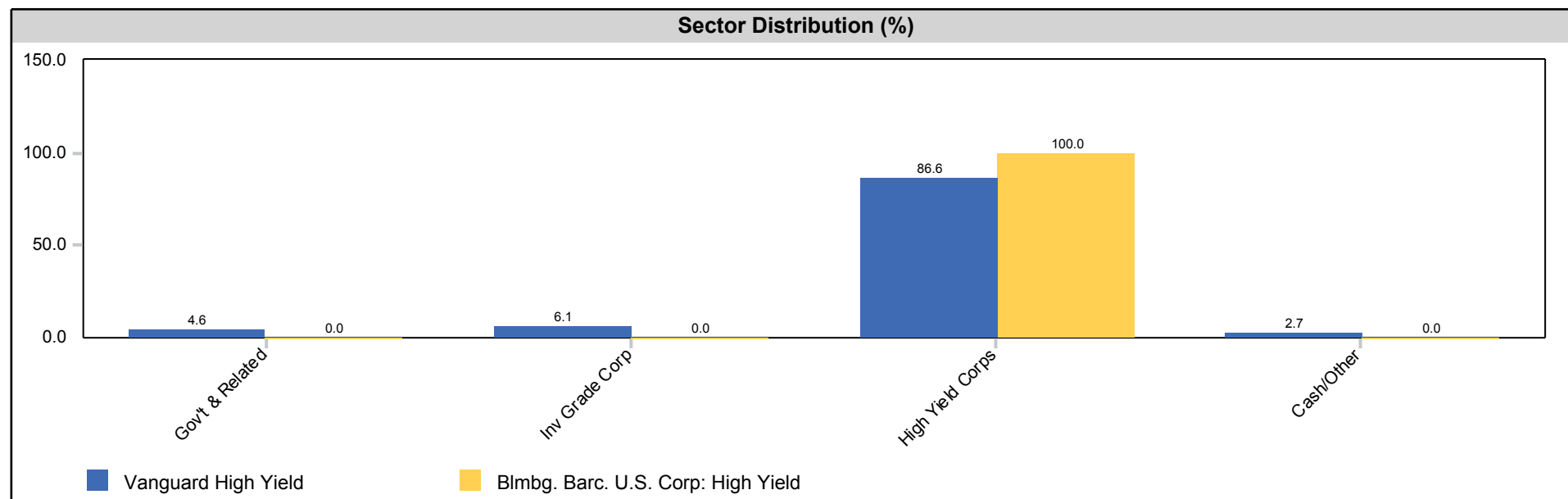
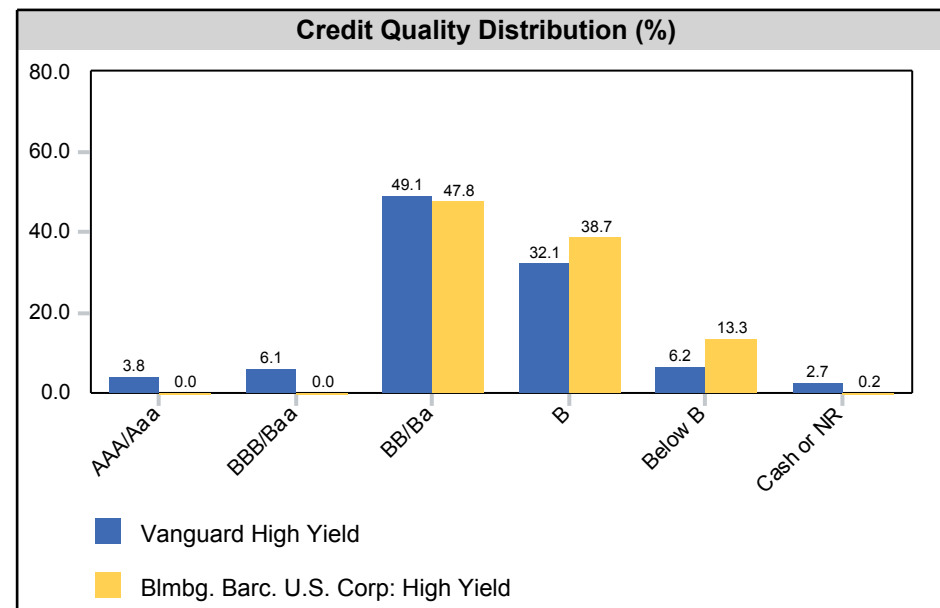
684

Parentheses contain percentile rankings.  
 Calculation based on monthly periodicity.  
 Returns are net of fees and are expressed as percentages.  
 4.47



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

Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	3.00	3.07
Yield To Maturity (%)	5.05	6.27
Avg. Maturity	3.80	5.78
Avg. Quality	BB	B
Coupon Rate (%)	5.60	6.35



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