



# City of Fort Lauderdale OPEB Report



## Investment Performance Review For the Quarter Ended December 31, 2019

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# Executive Summary

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The City of Fort Lauderdale (the “City”) OPEB Trust returned 5.37% (net of mutual fund fees) in the 4th quarter of 2019, outperforming its policy benchmark return of 5.15% by 0.22%. Year-to-date and in the trailing 12 months, the portfolio returned 17.88%, underperforming its 20.53% benchmark return by 2.65%. In dollar terms, the portfolio gained \$1,825,207 in return on investment over the quarter, and gained \$4,811,242 year-to-date.

The City’s OPEB Post Retirement Pay Steps Plan returned 5.17% (net of mutual fund fees) in the 4th quarter of 2019, performing relatively in line with its policy benchmark return of 5.15%. In dollar terms, the portfolio gained \$75,784 in return on investment over the quarter, and gained \$80,400 year-to-date.

The S&P 500 Index (S&P) posted a return of 9.1%, in a quarter, helped by better-than-expected economic data and continued resolution of trade tensions between the U.S. and China through the announcement of a Phase 1 deal. Markets outside of the U.S., as measured by the MSCI ACWI ex U.S. Index, slightly lagged their domestic equity counterparts and returned 8.9% for the fourth quarter. The U.S. bond market, represented by the Bloomberg Barclays U.S. Aggregate Index, was relatively flat for the fourth quarter, gaining just 0.2%.

Most leading economic indicators combined with accommodative central banks around the world continue to support the equity markets. However, we are mindful of potential risks, including lingering trade tensions and policy uncertainty arising from the upcoming U.S. elections. 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.



# OPEB Executive Summary

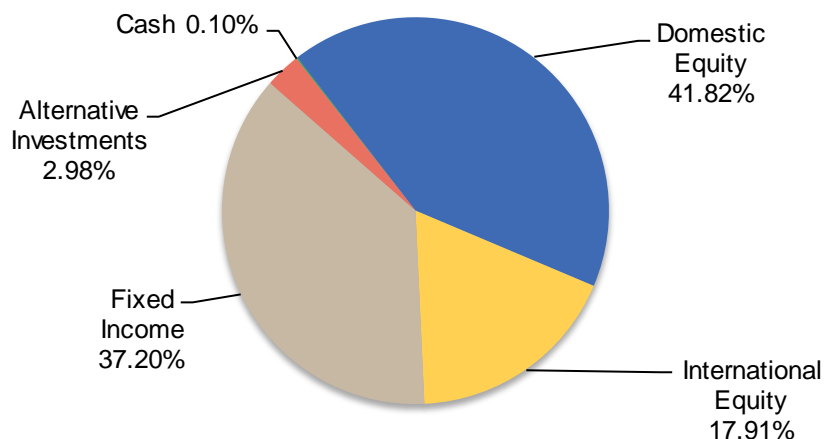
## Current Asset Allocation

Asset Class	Market Value	Pct (%)
Cash	\$37,784	0.1%
Domestic Equity	15,578,370	41.8%
International Equity	6,670,739	17.9%
Fixed Income	13,856,956	37.2%
Alternative Investments	1,110,205	3.0%
<b>Total</b>	<b>\$37,254,054</b>	<b>100.0%</b>

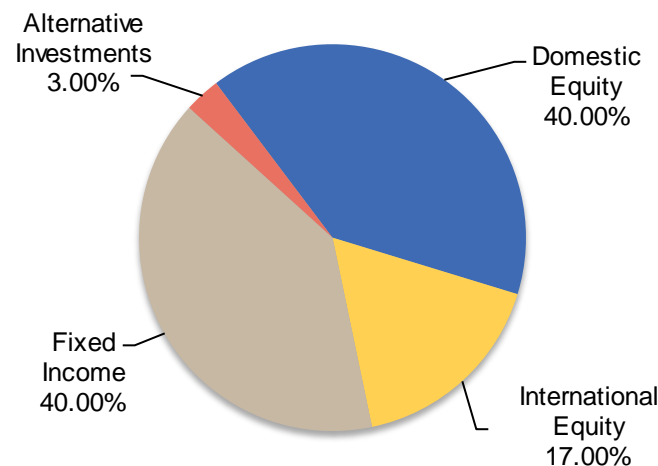
## \*Sample Target Allocation for 60/40 Accounts

Asset Class	Market Value	Pct (%)
Cash	-	0.0%
Domestic Equity	14,901,622	40.0%
International Equity	6,333,189	17.0%
Fixed Income	14,901,622	40.0%
Alternative Investments	1,117,622	3.0%
<b>Total</b>	<b>\$37,254,054</b>	<b>100%</b>

## Current Asset Allocation



## Target Asset Allocation



## Markets & Economy



## QUARTERLY MARKET SUMMARY

## Market Index Performance

As of December 31, 2019

	QTD	YTD	1 Year	3 Years	5 Years	7 Years	10 Years
<b>DOMESTIC EQUITY</b>							
S&P 500	9.07%	31.49%	31.49%	15.27%	11.70%	14.73%	13.56%
Russell 3000 Index	9.10%	31.02%	31.02%	14.57%	11.24%	14.38%	13.42%
Russell 1000 Value Index	7.41%	26.54%	26.54%	9.68%	8.29%	12.20%	11.80%
Russell 1000 Growth Index	10.62%	36.39%	36.39%	20.49%	14.63%	16.92%	15.22%
Russell Midcap Index	7.06%	30.54%	30.54%	12.06%	9.33%	13.21%	13.19%
Russell 2500 Index	8.54%	27.77%	27.77%	10.33%	8.93%	12.26%	12.58%
Russell 2000 Value Index	8.49%	22.39%	22.39%	4.77%	6.99%	10.13%	10.56%
Russell 2000 Index	9.94%	25.53%	25.53%	8.59%	8.23%	11.65%	11.83%
Russell 2000 Growth Index	11.39%	28.48%	28.48%	12.49%	9.34%	13.08%	13.01%
<b>INTERNATIONAL EQUITY</b>							
MSCI EAFE (Net)	8.17%	22.01%	22.01%	9.56%	5.67%	6.35%	5.50%
MSCI AC World Index (Net)	8.95%	26.60%	26.60%	12.44%	8.41%	9.73%	8.79%
MSCI AC World ex USA (Net)	8.92%	21.51%	21.51%	9.87%	5.51%	5.44%	4.97%
MSCI AC World ex USA Small Cap (Net)	11.01%	22.42%	22.42%	9.65%	7.04%	7.09%	6.92%
MSCI EM (Net)	11.84%	18.44%	18.44%	11.57%	5.61%	3.26%	3.68%
<b>ALTERNATIVES</b>							
FTSE NAREIT Equity REIT Index	-0.76%	26.00%	26.00%	8.14%	7.21%	9.51%	11.94%
FTSE EPRA/NAREIT Developed Index	1.96%	23.06%	23.06%	9.31%	6.53%	7.51%	9.25%
Bloomberg Commodity Index Total Return	4.42%	7.69%	7.69%	-0.94%	-3.92%	-6.72%	-4.73%
<b>FIXED INCOME</b>							
Blmbg. Barc. U.S. Aggregate	0.18%	8.72%	8.72%	4.03%	3.05%	2.72%	3.75%
Blmbg. Barc. U.S. Government/Credit	-0.01%	9.71%	9.71%	4.35%	3.23%	2.81%	3.96%
Blmbg. Barc. Intermed. U.S. Government/Credit	0.37%	6.80%	6.80%	3.24%	2.57%	2.15%	3.05%
Blmbg. Barc. U.S. Treasury: 1-3 Year	0.51%	3.59%	3.59%	1.85%	1.39%	1.14%	1.23%
Blmbg. Barc. U.S. Corp: High Yield	2.61%	14.32%	14.32%	6.37%	6.13%	5.78%	7.57%
Credit Suisse Leveraged Loan index	1.67%	8.17%	8.17%	4.48%	4.53%	4.41%	5.18%
ICE BofAML Global High Yield Constrained (USD)	3.39%	13.71%	13.71%	6.59%	5.90%	5.31%	7.18%
Blmbg. Barc. Global Aggregate Ex USD	0.67%	5.09%	5.09%	4.36%	1.63%	0.26%	1.50%
JPM EMBI Global Diversified	1.81%	15.04%	15.04%	6.68%	6.24%	4.68%	6.90%
<b>CASH EQUIVALENT</b>							
90 Day U.S. Treasury Bill	0.46%	2.28%	2.28%	1.67%	1.05%	0.76%	0.56%

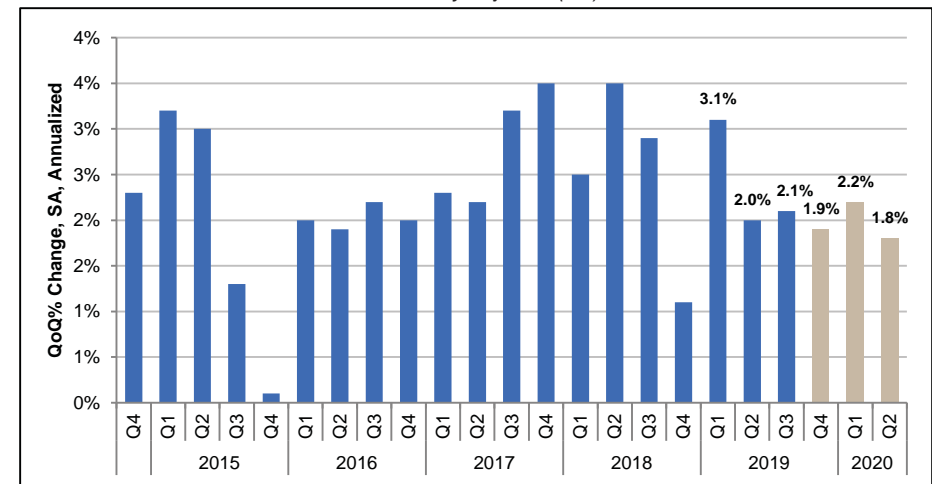
Source: Investment Metrics. Returns are expressed as percentages. Please refer to the last page of this document for important disclosures relating to this material.



## THE ECONOMY

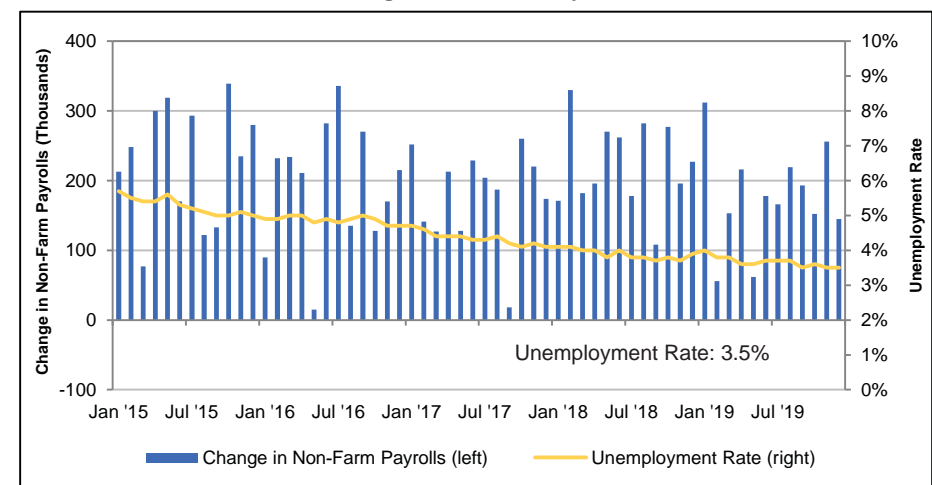
- In line with slowing growth expectations, U.S. Gross Domestic Product (GDP) for the fourth quarter of 2019 is projected to grow at an annual rate of 1.9%, based on the median nowcast for a set of leading GDP estimates. This is down slightly from 2.1% in the third quarter of 2019.
- The U.S. labor market added 145,000 jobs in December, extending the current streak of payroll gains to 10 years. The unemployment rate held steady at 3.5% for most of the fourth quarter, matching a 50-year low. Private-sector wage growth rose 2.9% from a year ago, which is slightly disappointing given the employment situation. Overall in 2019, the economy added approximately 2.11 million jobs versus 2.68 million in 2018. The slower pace of hiring reflects employers' difficulty finding workers, global trade tensions and the fading effects of the 2018 tax cuts. The labor-force participation rate held steady at 63.2%, well below pre-recession levels.
- Inflation cooled heading into 2020 after peaking during the late summer months. November's core personal consumption expenditures (PCE) reading fell to 1.6% from 1.7% in the two previous months. Muted inflation pressures, including tentative wage growth, have led the Federal Open Market Committee (FOMC) to estimate a 2020 core PCE inflation rate of 1.9%.
- Globally, many economists see a smoother 2020 with easing trade tensions and monetary policy playing a major role. The World Bank has forecast global economic growth to edge higher this year to 2.5%. Growth in developed economies is projected to fall to 1.4% in 2020, while emerging markets are anticipated to grow 4.1%. Downside risks in 2020 revolve around trade uncertainty, the World Bank says, though the fourth quarter of 2019 lessened those concerns.

**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**



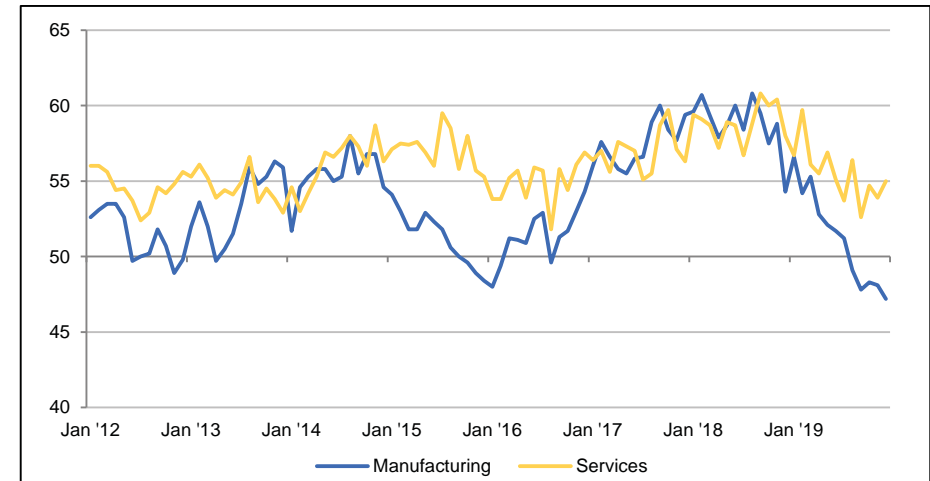
Source: Bloomberg.



## WHAT WE'RE WATCHING

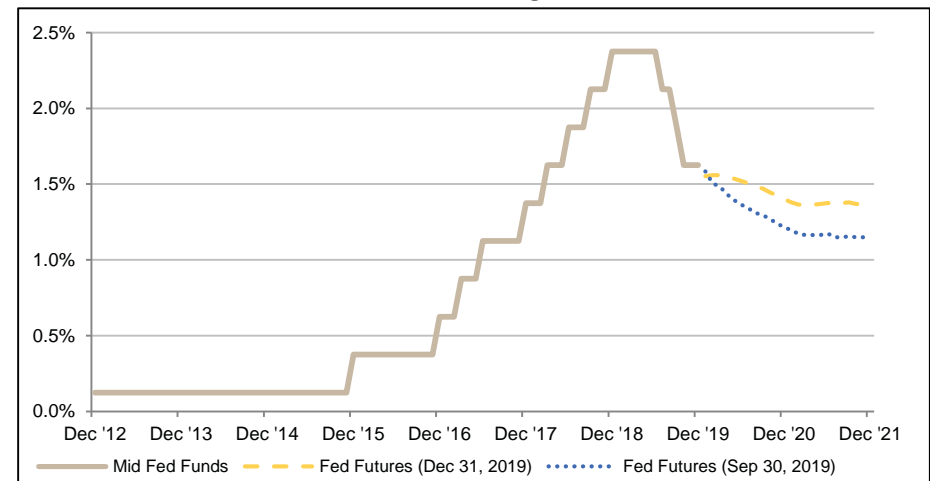
- The U.S. and China agreed to “Phase 1” of a trade deal in December, and the two sides plan to sign the agreement in Washington, D.C. in mid-January. The deal was made just before additional tariffs were due to take effect on Chinese imports on December 15. The agreement reduces tariffs on both Chinese and American goods, increases the amount of agricultural purchases China will make and includes commitments from China on intellectual property security.
- The U.S., Mexico and Canada Agreement (USMCA) was ratified in the House of Representatives after gaining overwhelming bipartisan support. Initial concerns from Democrats on environmental protections and labor provisions were addressed by the White House, and the deal is ready for a vote in the Senate. The deal replaces the North American Free Trade Agreement (NAFTA) and includes improved labor laws, country of origin rules and improvements for U.S. farmers, among other changes.
- Brexit continues apace as conservatives claimed a large majority in the UK Parliament after general elections were held in December. Prime Minister Boris Johnson wasted no time committing to an exit from the European Union (EU) by January 31 and vowed to abstain from an extension of the standstill period – an attempt to ensure that the UK will have a complete withdrawal by the end of 2020. A comprehensive trade deal with the EU will be more difficult to negotiate in such rushed circumstances, but the results of the general election have led to greater certainty around Brexit.
- Tensions are rising in the Middle East after a U.S. drone strike killed a top Iranian General. Oil prices rose at the possibility of a disruption in the region's oil supply, but markets generally held steady after an initial decline following the news of the strike. Both sides have backed away from any further escalation after a measured retaliation by Iran.

ISM Manufacturing &amp; Services PMI



Source: Bloomberg.

Federal Funds Target Rate



Source: Bloomberg.





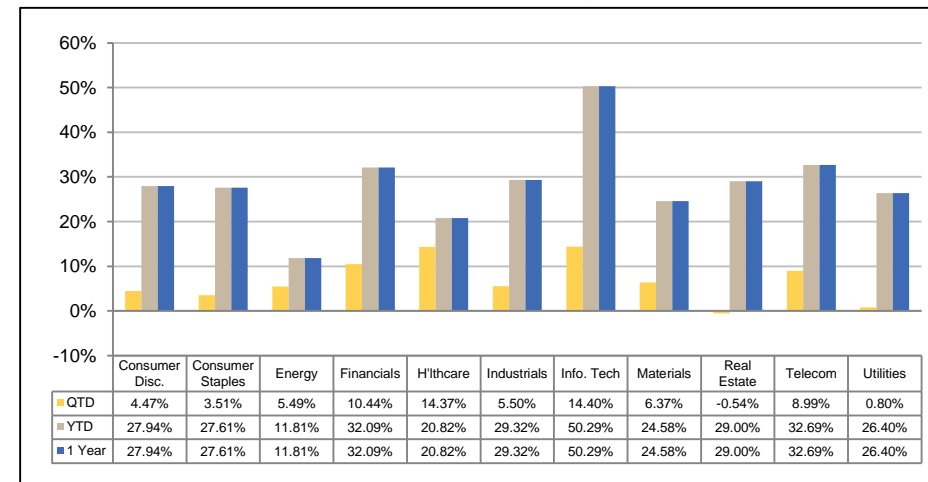
## QUARTERLY MARKET SUMMARY

## DOMESTIC EQUITY

- The S&P 500 Index (S&P) posted a return of 9.1% for the quarter, helped by better-than-expected economic data and continued resolution of trade tensions between the U.S. and China through the announcement of a Phase 1 deal.
- Within the S&P, IT and Healthcare were the best performing sectors and returned 14.4% each. The IT sector continued to rally by returning 50.3% for the year, compared to 31.5% for the index. Real Estate and Utilities were the worst performing sectors for the quarter, returning -0.5% and 0.8%, respectively. For the year, Energy was the worst performing sector, despite the rally in energy names in December.
- Value stocks, as represented by the Russell 1000 Value Index, returned 7.4%, and underperformed growth stocks, as represented by the Russell 1000 Growth Index, which returned 10.6%. While the year saw pockets of value outperformance, growth stocks continued to outperform value stocks in 2019.
- Small-caps, as represented by the Russell 2000 Index, returned 9.9% during the quarter and outperformed mid- and large-caps. The outperformance was wider when compared to mid-caps, as represented by the Russell Mid-Cap Index, returned 7.05%. For the year, large-caps outperformed both mid- and small-caps.
- For the quarter, according to FactSet Earnings Insight as of January 3, 2020, the expected earnings growth for fourth quarter of 2019 for the S&P is -1.5%. Earnings growth in 2019 was lower as trade tensions, slowing global growth expectations and slowing manufacturing activity loomed large. Analysts expect earnings growth to improve in 2020, with projected earnings growth of 9.6% and projected revenue growth of 5.4% for the year.

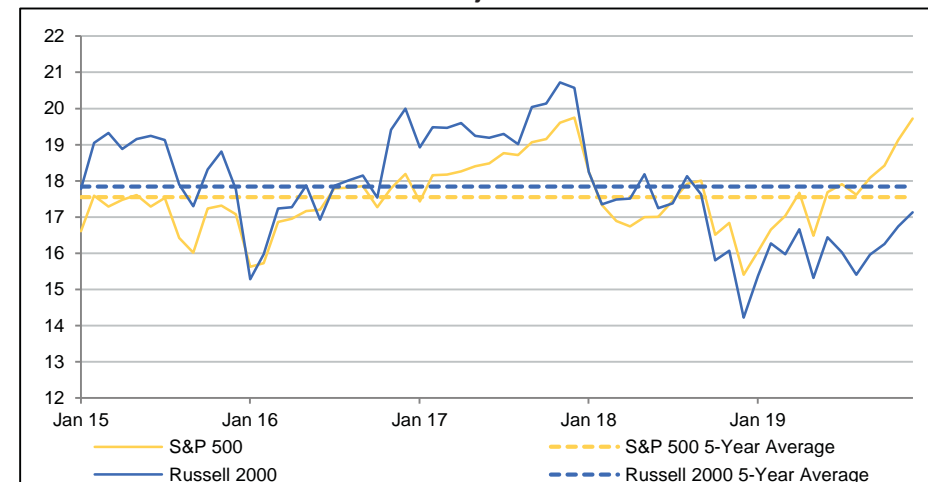
## S&amp;P 500 Index Performance by Sector

Periods Ended December 31, 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.



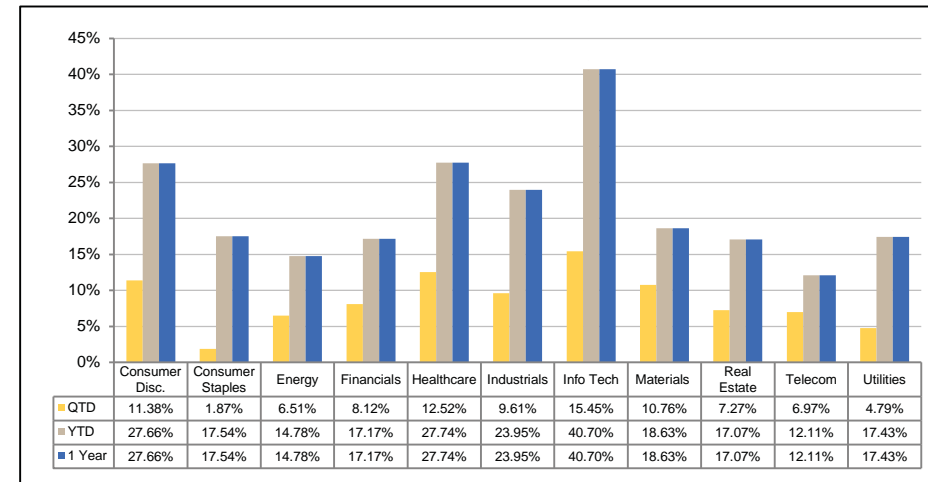
## QUARTERLY MARKET SUMMARY

## NON-U.S. EQUITY

- Markets outside of the U.S., as measured by the MSCI ACWI ex U.S. Index, slightly lagged their domestic equity counterparts and returned 8.9% for the fourth quarter. Each of the 11 sectors had positive returns during the quarter, with Technology leading the way at 15.5%, followed by Healthcare and Consumer Discretionary at 12.5% and 11.4%, respectively. The worst performers in the index were Utilities and Consumer Staples, which returned 4.8% and 1.9%, respectively.
- Emerging markets, as represented by MSCI Emerging Market Index, outperformed Developed ex U.S. markets, represented by MSCI EAFE Index, returning 11.8% versus 8.2% for the quarter. Within Emerging Markets, the China market bounced back posting a 14.7% for the quarter. Within the Developed Markets, Japan and UK boasted strong returns for the quarter, returning 7.6% and 10.0%, respectively.
- While value underperformed growth for the fourth quarter as a whole, it began to resurge in December within Developed Markets (MSCI AC World ex-USA Value 4.5% versus MSCI AC World ex-USA Growth 4.2%) and (MSCI EAFE Value 3.7% versus MSCI EAFE Growth 2.9%).
- Global markets received positive news in December, which mitigated near-term concerns of a global slowdown. Clarity into the U.S. and China trade war improved with the approval of a Phase 1 trade deal. Within Europe, the majority win of the Conservative Party in the UK eases concerns around a no-deal Brexit.

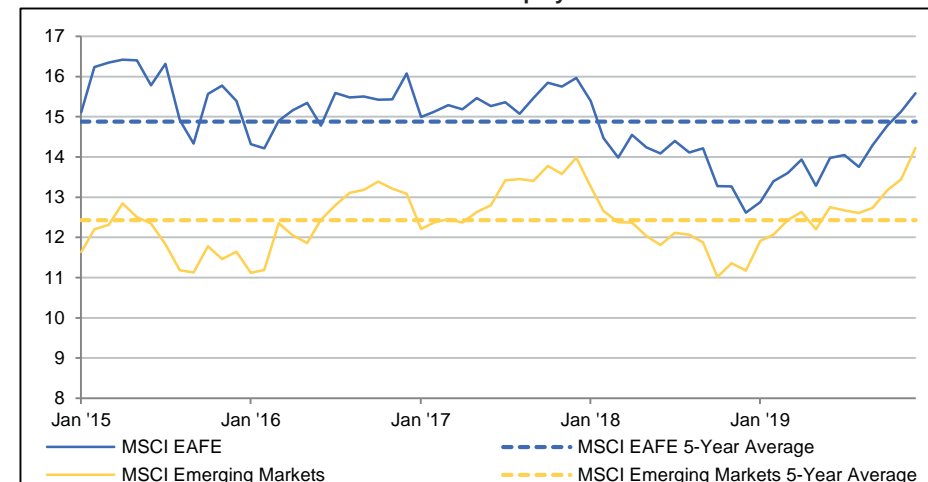
## MSCI ACWI ex-U.S. Sectors

Periods Ended December 31, 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.

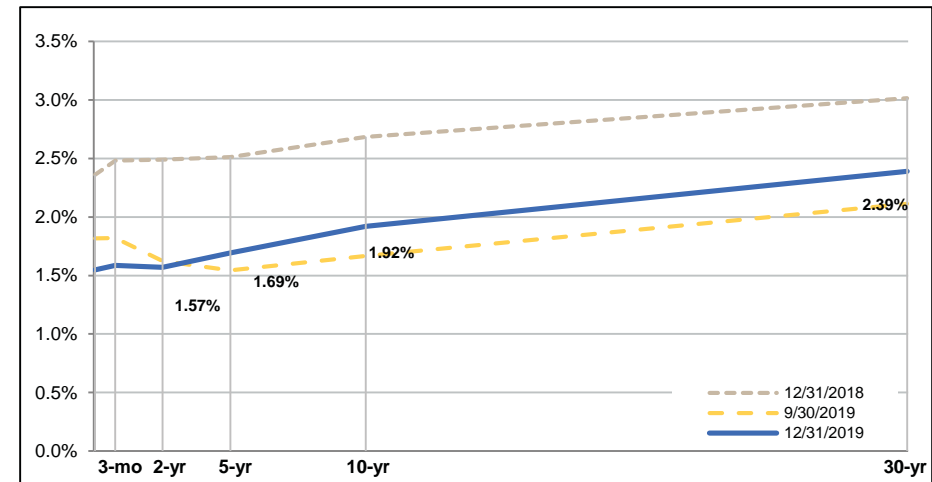


## QUARTERLY MARKET SUMMARY

## FIXED INCOME

- The U.S. bond market, represented by the Bloomberg Barclays U.S. Aggregate (Aggregate) Index, was relatively flat for the fourth quarter, gaining just 0.2%.
- Rates were mixed during the quarter falling from two years in, but longer maturities rose with the 10-year treasury ending at 1.9% and 30-year at 2.4%.
- Investment-grade (IG) corporate spreads declined during the quarter. The Bloomberg Barclays U.S. Corporate Index rose 1.2%, bringing a year-to-date (YTD) return just over 14.5%. High yield bonds, as represented by the Bloomberg Barclays U.S. Corporate High Yield (HY) Index performed even better at 2.6%. CCC-rated debt outperformed higher quality BB-rated debt, reversing a trend held through the first three quarters of the year.
- The fixed-rate mortgage market, as measured by the Bloomberg Barclays U.S. Mortgage-Backed Securities (MBS) Index, gained 0.7%, while the Bloomberg Barclays U.S. Agency CMBS Index (measuring commercial MBS) fell 0.3%.
- Emerging market USD sovereign bonds, as represented by the JP Morgan EMBI Global Diversified Index, had another strong quarter, rising 1.8%.

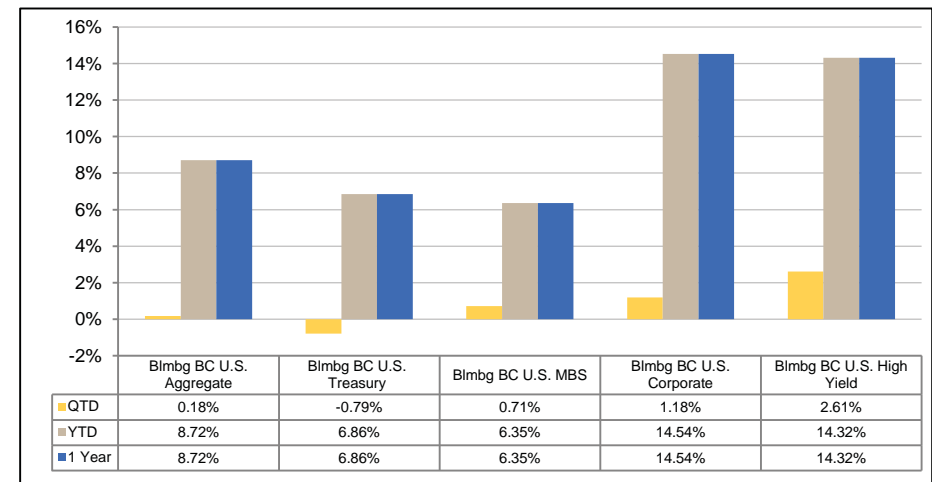
U.S. Treasury Yield Curve



Source: Bloomberg.

Returns for Fixed-Income Segments

Periods Ended December 31, 2019



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



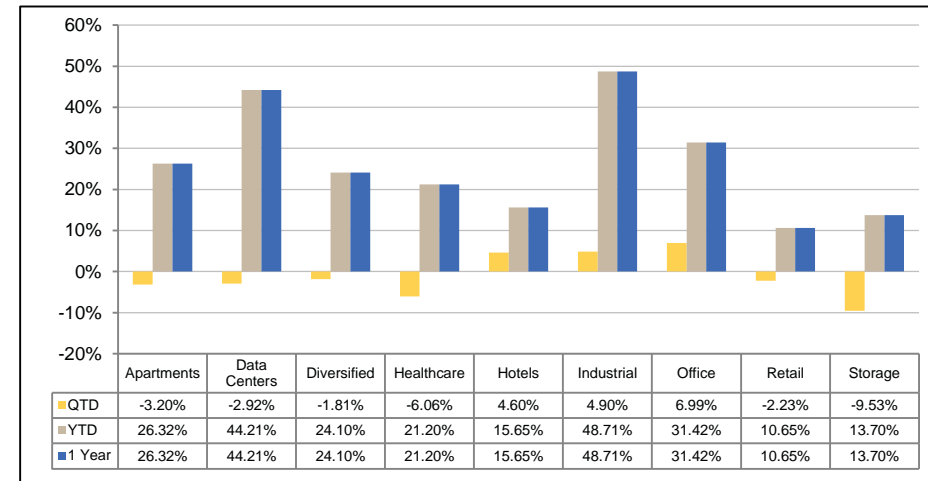
## QUARTERLY MARKET SUMMARY

## ALTERNATIVES

- REITs, as measured by the FTSE NAREIT Equity REITs Index, returned -0.8% in the fourth quarter, resulting in a 2019 return of 26.0%. The majority of sector returns were negative in the fourth quarter with six of nine sectors posting losses. Office, Industrial and Lodging/Resorts were the exception posting strong returns of 7.0%, 4.9% and 4.6%, respectively. The largest sector drawdowns were experienced by Self-Storage, Healthcare and Data Centers, which posted returns of -9.5%, -6.1% and -2.9%, respectively.
- Private real estate, as measured by the NCREIF Property Index, generated a total return of 1.4% in the third quarter. As of the end of the third quarter, the NCREIF Property Index has generated a total YTD return of 6.2%. Industrial properties continue to be the top performing sector with a return of 3.2% in the third quarter, compared to 3.4% in the second quarter. Retail properties reversed course from the second quarter and managed to have a positive third quarter return of 0.2%, compared to -0.1% in the second quarter.
- Hedge funds generated positive returns in the fourth quarter with the HFRI Fund Weighted Composite Index returning 3.5%, resulting in a 2019 return of 10.4%. During the same period, the HFRI Equity Hedge (Total) Index returned 5.9% and the HFRI Fund of Funds Index returned 2.5%, although HFRI Macro (Total) Index returned -0.5% during the quarter.
- In the third quarter, private capital fundraising was led by private equity funds, which closed on \$163 billion, followed by \$37 billion raised by private real estate funds, \$22 billion raised by private debt funds and \$8.4 billion raised by infrastructure funds. Private equity dry powder, which accounts for the bulk of private capital dry powder, reached \$1.45 trillion as of year-end 2019. As of December 2018, private equity funds generated an average one-year IRR of 13.7% and a five-year IRR of 14.2%. Over those same time periods, private debt generated 3.1% and 6.7%, respectively.
- Commodity futures, represented by the Bloomberg Commodity Total Return Index, returned 4.4% in the fourth quarter and ended 2019 with a 7.7% return. The U.S. Dollar Index (DXY) posted a loss of 3.0% in the fourth quarter, resulting in a 2019 return of 0.2%. Gold spot price ended the quarter at \$1,517.27 per ounce, up from \$1,472.49 per ounce at the end of the third quarter. Gold appreciated 18.3% in 2019. West Texas Intermediate (WTI) Crude Oil spot price ended the quarter at \$61.06, up from \$54.07 at the end of the third quarter primarily due to tightening supply, the weakening U.S. Dollar and increasing tensions in the Middle East. Crude Oil prices appreciated 27.3% in 2019.

## FTSE NAREIT Sectors

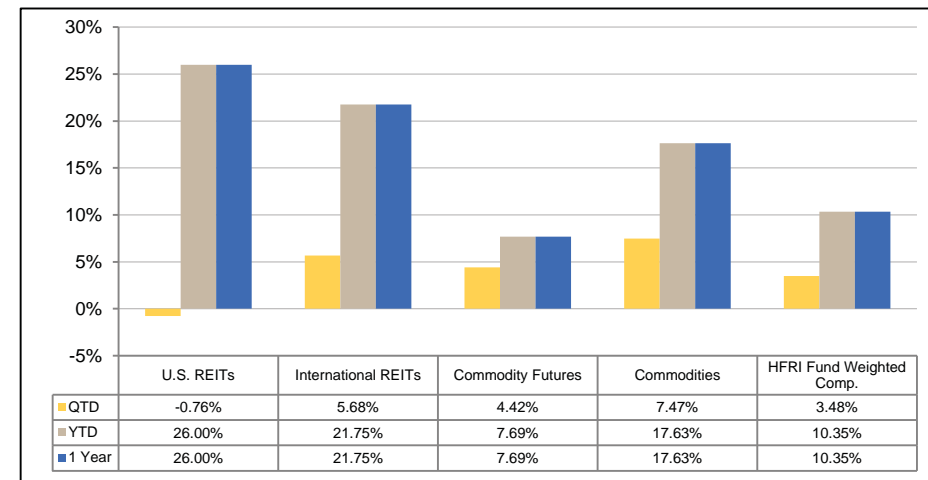
Periods Ended December 31, 2019



Source: Bloomberg.

## Returns for Alternative Assets

Periods Ended December 31, 2019



Sources: Bloomberg and Hedge Fund Research, Inc.



## **Total Fund - OPEB Trust**



## Asset Allocation &amp; Performance

	Allocation		Performance(%)			
	Market Value (\$)	%	Current Quarter	2019	Trailing 12-months	Fiscal Year To Date
<b>Total Fund</b>	<b>35,716,481</b>	<b>100.00</b>	<b>5.37</b>	<b>17.88</b>	<b>17.88</b>	<b>5.37</b>
<b>Blended Benchmark</b>			<b>5.15</b>	<b>20.53</b>	<b>20.53</b>	<b>5.15</b>
<b>Domestic Equity</b>	<b>14,939,645</b>	<b>41.83</b>	<b>8.78</b>	<b>31.21</b>	<b>31.21</b>	<b>8.78</b>
Vanguard Total Stock Mkt Index Fund	1,335,329	3.74	9.01	N/A	N/A	9.01
<i>Russell 3000 Index</i>			9.10	31.02	31.02	9.10
Fidelity 500 Index Fund	5,625,106	15.75	9.06	31.47	31.47	9.06
Vanguard 500 Index Fund	5,623,914	15.75	9.06	31.46	31.46	9.06
<i>S&amp;P 500</i>			9.07	31.49	31.49	9.07
Vanguard Mid-Cap Value Index Fund	743,232	2.08	6.28	27.99	27.99	6.28
<i>Russell Midcap Value Index</i>			6.36	27.06	27.06	6.36
Vanguard Mid-Cap Growth Index Fund	846,215	2.37	7.47	33.86	33.86	7.47
<i>Russell Midcap Growth Index</i>			8.17	35.47	35.47	8.17
Vanguard Small Cap Index Fund	765,851	2.14	8.14	27.37	27.37	8.14
<i>Russell 2000 Index</i>			9.94	25.53	25.53	9.94
<b>International Equity</b>	<b>6,400,304</b>	<b>17.92</b>	<b>9.68</b>	<b>20.46</b>	<b>20.46</b>	<b>9.68</b>
Vanguard Total Intl Stock Index Fund	708,576	1.98	9.01	N/A	N/A	9.01
<i>MSCI AC World ex USA (Net)</i>			8.92	21.51	21.51	8.92
Vanguard Developed Markets Index Fund	3,075,392	8.61	8.36	22.05	22.05	8.36
<i>MSCI EAFE (net)</i>			8.17	22.01	22.01	8.17
iShares MSCI EAFE Small-Cap ETF	1,245,600	3.49	11.05	24.67	24.67	11.05
<i>MSCI EAFE Small Cap (net)</i>			11.52	24.96	24.96	11.52
Fidelity Emerging Markets Index Fund	1,370,736	3.84	11.82	18.26	18.26	11.82
<i>MSCI EM (net)</i>			11.84	18.44	18.44	11.84
<b>Real Estate</b>	<b>1,066,119</b>	<b>2.98</b>	<b>0.62</b>	<b>28.98</b>	<b>28.98</b>	<b>0.62</b>
Vanguard Real Estate Index Fund	1,066,119	2.98	0.62	28.94	28.94	0.62
<i>FTSE NAREIT Equity REIT Index</i>			-0.76	26.00	26.00	-0.76

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	2019	Trailing 12-months	Fiscal Year To Date
<b>Fixed Income</b>	<b>13,273,145</b>	<b>37.16</b>	<b>0.31</b>	<b>7.11</b>	<b>7.11</b>	<b>0.31</b>
Vanguard Total Bond Mkt Index Fund	8,741,890	24.48	0.03	N/A	N/A	0.03
<i>Blmbg. Barc. U.S. Aggregate</i>			<i>0.18</i>	<i>8.72</i>	<i>8.72</i>	<i>0.18</i>
U.S. Government Securities	2,122,757	5.94	0.03	5.77	5.77	0.03
<i>Blmbg. Barc. U.S. Treasury: 1-3 Year</i>			<i>0.51</i>	<i>3.59</i>	<i>3.59</i>	<i>0.51</i>
Vanguard Short-Term Corporate Bond Index Fund	1,345,545	3.77	0.86	6.84	6.84	0.86
<i>Blmbg. Barc. U.S. Corporate 1-5 Year Index</i>			<i>0.95</i>	<i>6.99</i>	<i>6.99</i>	<i>0.95</i>
Vanguard High-Yield Corporate Fund	1,062,954	2.98	2.53	15.91	15.91	2.53
<i>Blmbg. Barc. U.S. Corp: High Yield</i>			<i>2.61</i>	<i>14.32</i>	<i>14.32</i>	<i>2.61</i>
<b>Cash Equivalent</b>	<b>37,268</b>	<b>0.10</b>	<b>0.41</b>	<b>2.12</b>	<b>2.12</b>	<b>0.41</b>
Wells Fargo 100% Treasury Money Market	37,268	0.10	0.41	2.00	2.00	0.41

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 10/01/2019	Net Flows	Return On Investment	Market Value As of 12/31/2019
Total Fund	33,896,318	(5,043)	1,825,207	35,716,481

YTD	Market Value As of 01/01/2019	Net Flows	Return On Investment	Market Value As of 12/31/2019
Total Fund	24,632,281	6,272,958	4,811,242	35,716,481

Fiscal Year To Date	Market Value As of 10/01/2019	Net Flows	Return On Investment	Market Value As of 12/31/2019
Total Fund	33,896,318	(5,043)	1,825,207	35,716,481

1 Year	Market Value As of 01/01/2019	Net Flows	Return On Investment	Market Value As of 12/31/2019
Total Fund	24,632,281	6,272,958	4,811,242	35,716,481





## 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	2019	Trailing 12-months	Fiscal Year To Date
<b>Total Fund</b>	<b>1,537,572</b>	<b>100.00</b>	<b>5.17</b>	<b>N/A</b>	<b>N/A</b>	<b>5.17</b>
Blended Benchmark			5.15	N/A	N/A	5.15
<b>Domestic Equity</b>	<b>638,725</b>	<b>41.54</b>	<b>9.01</b>	<b>N/A</b>	<b>N/A</b>	<b>9.01</b>
Vanguard Total Stock Market Index	638,725	41.54	9.01	N/A	N/A	9.01
<i>Russell 3000 Index</i>			9.10	31.02	31.02	9.10
<b>International Equity</b>	<b>270,435</b>	<b>17.59</b>	<b>9.01</b>	<b>N/A</b>	<b>N/A</b>	<b>9.01</b>
Vanguard Total International Stock Index Fund	270,435	17.59	9.01	N/A	N/A	9.01
<i>MSCI AC World ex USA (Net)</i>			8.92	21.51	21.51	8.92
<b>Real Estate</b>	<b>44,086</b>	<b>2.87</b>	<b>0.62</b>	<b>N/A</b>	<b>N/A</b>	<b>0.62</b>
Vanguard Real Estate Index Fund	44,086	2.87	0.62	N/A	N/A	0.62
<i>FTSE NAREIT Equity REIT Index</i>			-0.76	26.00	26.00	-0.76
<b>Fixed Income</b>	<b>583,811</b>	<b>37.97</b>	<b>0.03</b>	<b>N/A</b>	<b>N/A</b>	<b>0.03</b>
Vanguard Total Bond Market Index	583,811	37.97	0.03	N/A	N/A	0.03
<i>Blmbg. Barc. U.S. Aggregate</i>			0.18	8.72	8.72	0.18
<b>Cash Equivalent</b>	<b>516</b>	<b>0.03</b>	<b>0.40</b>	<b>N/A</b>	<b>N/A</b>	<b>0.40</b>
Wells Fargo 100% Treasury Money Market	516	0.03	0.40	N/A	N/A	0.40
<i>ICE BofAML 3 Month U.S. T-Bill</i>			0.46	2.28	2.28	0.46

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 10/01/2019	Net Flows	Return On Investment	Market Value As of 12/31/2019
Total Fund	1,462,005	(217)	75,784	1,537,572

YTD	Market Value As of 01/01/2019	Net Flows	Return On Investment	Market Value As of 12/31/2019
Total Fund	-	1,457,173	80,400	1,537,572

Fiscal Year To Date	Market Value As of 10/01/2019	Net Flows	Return On Investment	Market Value As of 12/31/2019
Total Fund	1,462,005	(217)	75,784	1,537,572

1 Year	Market Value As of 01/01/2019	Net Flows	Return On Investment	Market Value As of 12/31/2019
Total Fund	-	1,457,173	80,400	1,537,572



**Historical Hybrid Composition**

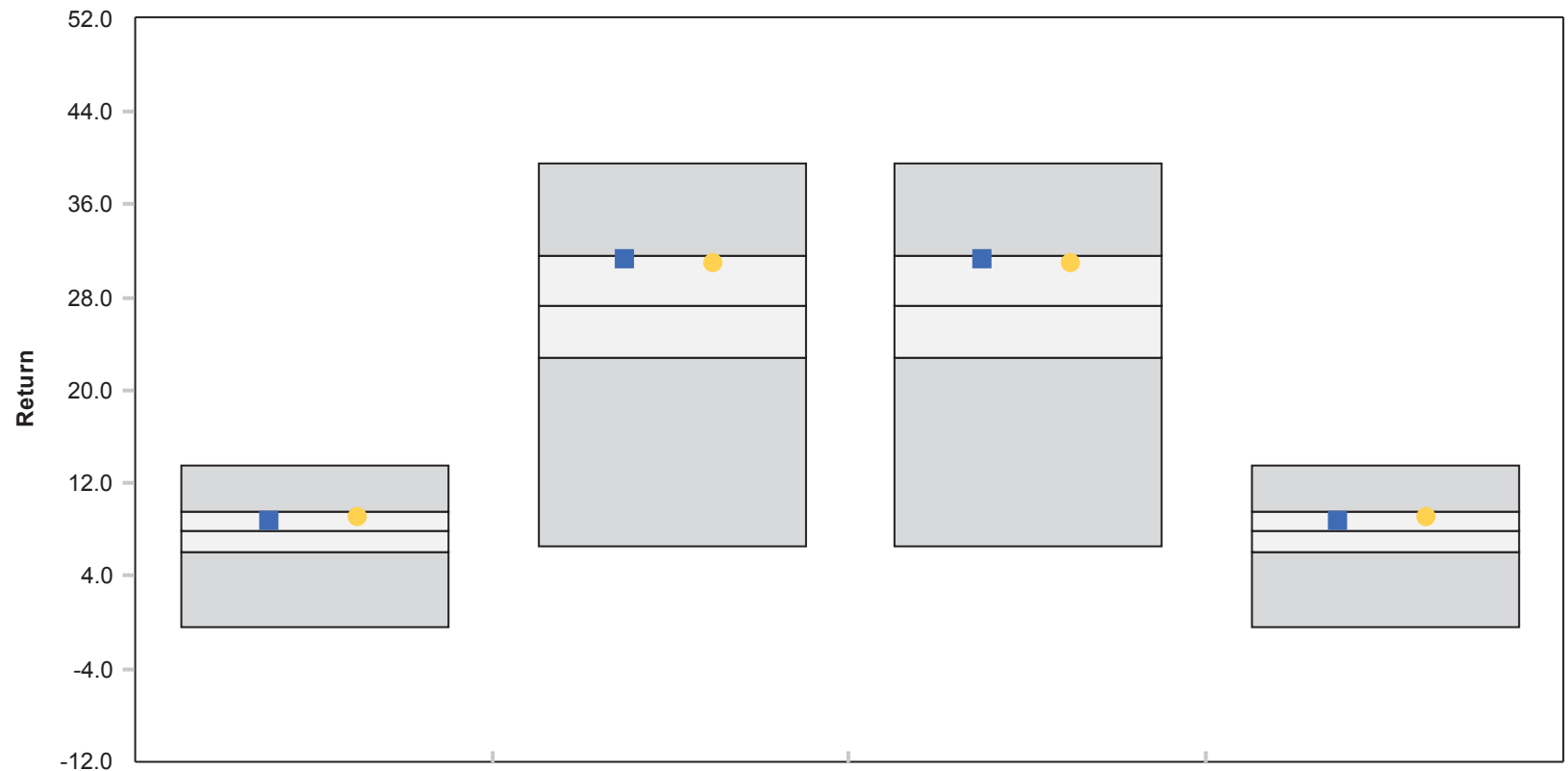
Benchmark Allocation	Weight (%)
<b>Oct-2019</b>	
Russell 3000 Index	40.0
MSCI AC World ex USA (Net)	17.0
FTSE NAREIT Equity REIT Index	3.0
Blmbg. Barc. U.S. Aggregate	40.0



# Investment Manager Review



IM U.S. Equity (MF)



	Current Quarter	2019	Trailing 12-months	Fiscal Year To Date
■ Domestic Equity	8.78 (38)	31.21 (28)	31.21 (28)	8.78 (38)
● Russell 3000 Index	9.10 (31)	31.02 (29)	31.02 (29)	9.10 (31)
5th Percentile	13.47	39.52	39.52	13.47
1st Quartile	9.51	31.64	31.64	9.51
Median	7.91	27.35	27.35	7.91
3rd Quartile	6.05	22.79	22.79	6.05
95th Percentile	-0.39	6.50	6.50	-0.39
Population	9,114	8,957	8,957	9,114

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

<u>Portfolio Characteristics</u>		
	<b>Portfolio</b>	<b>Benchmark</b>
Wtd. Avg. Mkt. Cap (\$M)	239,878	245,925
Median Mkt. Cap (\$M)	1,175	1,775
Price/Earnings ratio	22.79	22.63
Price/Book ratio	3.54	3.50
5 Yr. EPS Growth Rate (%)	13.94	14.19
Current Yield (%)	1.81	1.79
Number of Stocks	3,551	2,992

<u>Top Ten Equity Holdings</u>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Apple Inc	3.77	4.11	-0.34	31.50
Microsoft Corp	3.72	3.75	-0.03	13.82
Amazon.com Inc	2.38	2.41	-0.03	6.45
Facebook Inc	1.53	1.54	-0.01	15.26
Berkshire Hathaway Inc	1.35	1.39	-0.04	8.88
JPMorgan Chase & Co	1.34	1.37	-0.03	19.40
Alphabet Inc	1.24	1.26	-0.02	9.68
Alphabet Inc	1.23	1.26	-0.03	9.68
Johnson & Johnson	1.19	1.22	-0.03	13.53
Visa Inc	0.99	1.01	-0.02	9.42
% of Portfolio	18.74	19.32	-0.58	

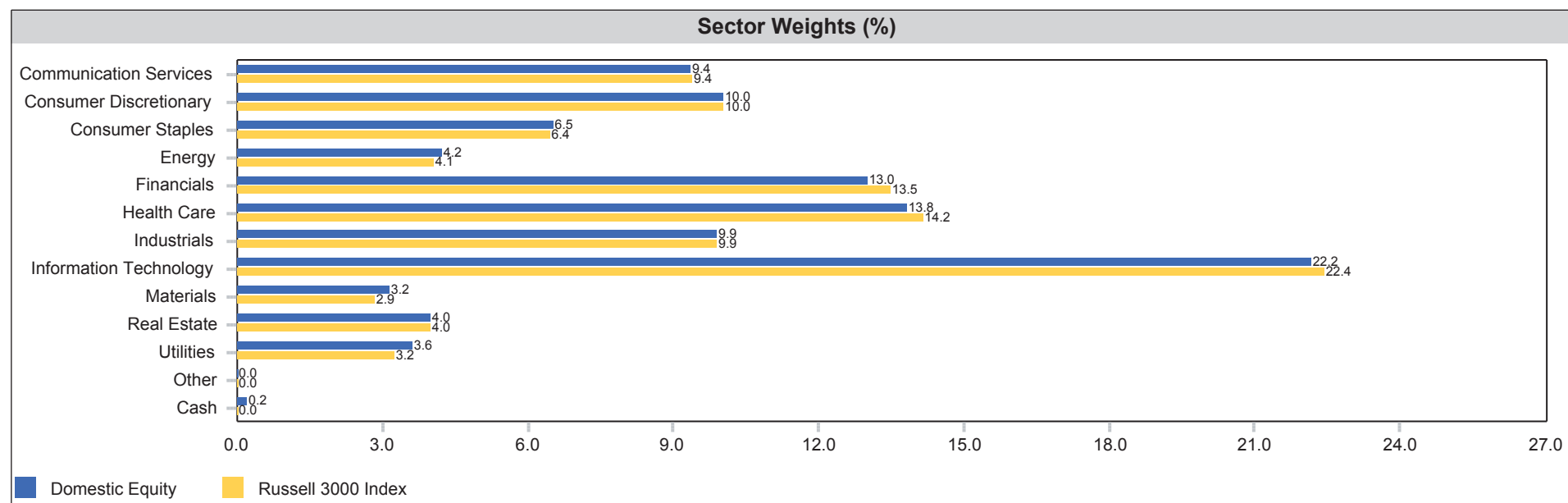
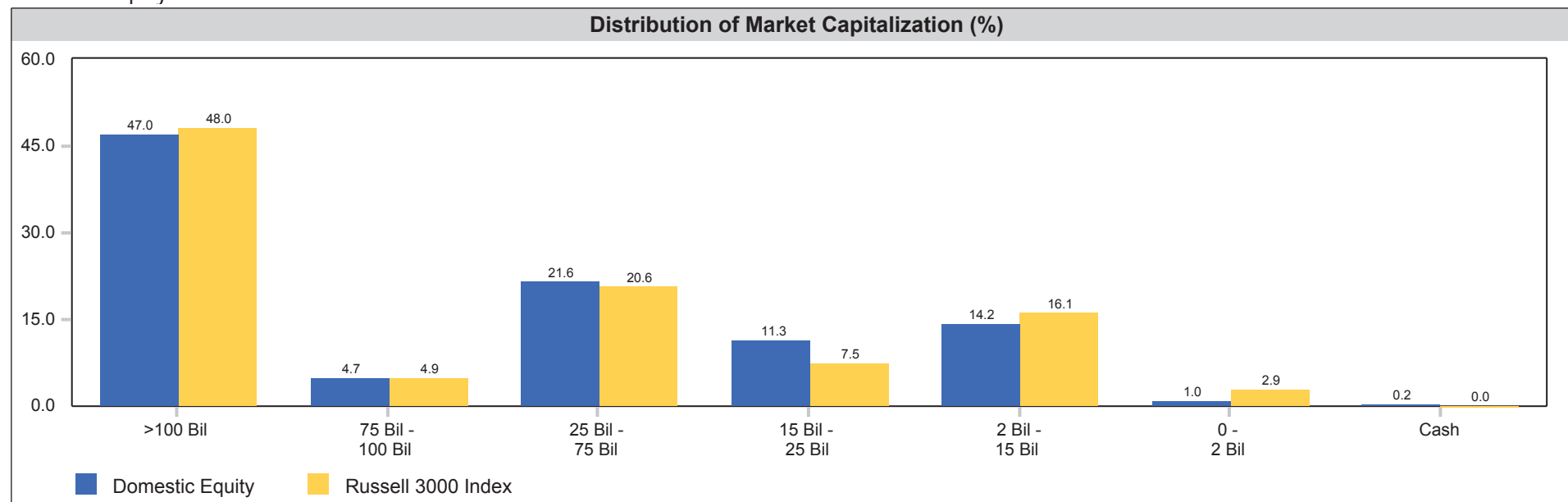
<u>Ten Best Performers</u>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
FuelCell Energy Inc	0.00	0.00	0.00	666.65
IVERIC bio Inc	0.00	0.00	0.00	666.07
Constellation Pharmaceuticals Inc	0.00	0.00	0.00	629.25
Forty Seven Inc	0.00	0.00	0.00	513.24
ChemoCentryx Inc	0.00	0.01	-0.01	483.33
Axsome Therapeutics Inc	0.00	0.01	-0.01	410.67
Kodiak Sciences Inc	0.00	0.01	-0.01	400.34
Karuna Therapeutics Inc	0.00	0.00	0.00	361.64
Clearside Biomedical Inc	0.00	0.00	0.00	360.32
Intra-Cellular Therapies Inc	0.00	0.00	0.00	359.31
% of Portfolio	0.00	0.03	-0.03	

<u>Ten Worst Performers</u>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Spirit MTA REIT	0.00	0.00	0.00	-90.90
Lipocine Inc	0.00	0.00	0.00	-86.30
Hornbeck Offshore Services Inc.	0.00	0.00	0.00	-86.17
resTORbio Inc	0.00	0.00	0.00	-83.14
TransEnterix Inc	0.00	0.00	0.00	-81.76
Unit Corp	0.00	0.00	0.00	-79.42
Cyclerion Therapeutics Inc	0.00	0.00	0.00	-77.56
Cocrystal Pharma Inc	0.00	0.00	0.00	-75.83
Waitr Holdings Inc	0.00	0.00	0.00	-74.94
Alta Mesa Resources Inc	0.00	0.00	0.00	-74.00
% of Portfolio	0.00	0.00	0.00	





Domestic Equity vs. Russell 3000 Index



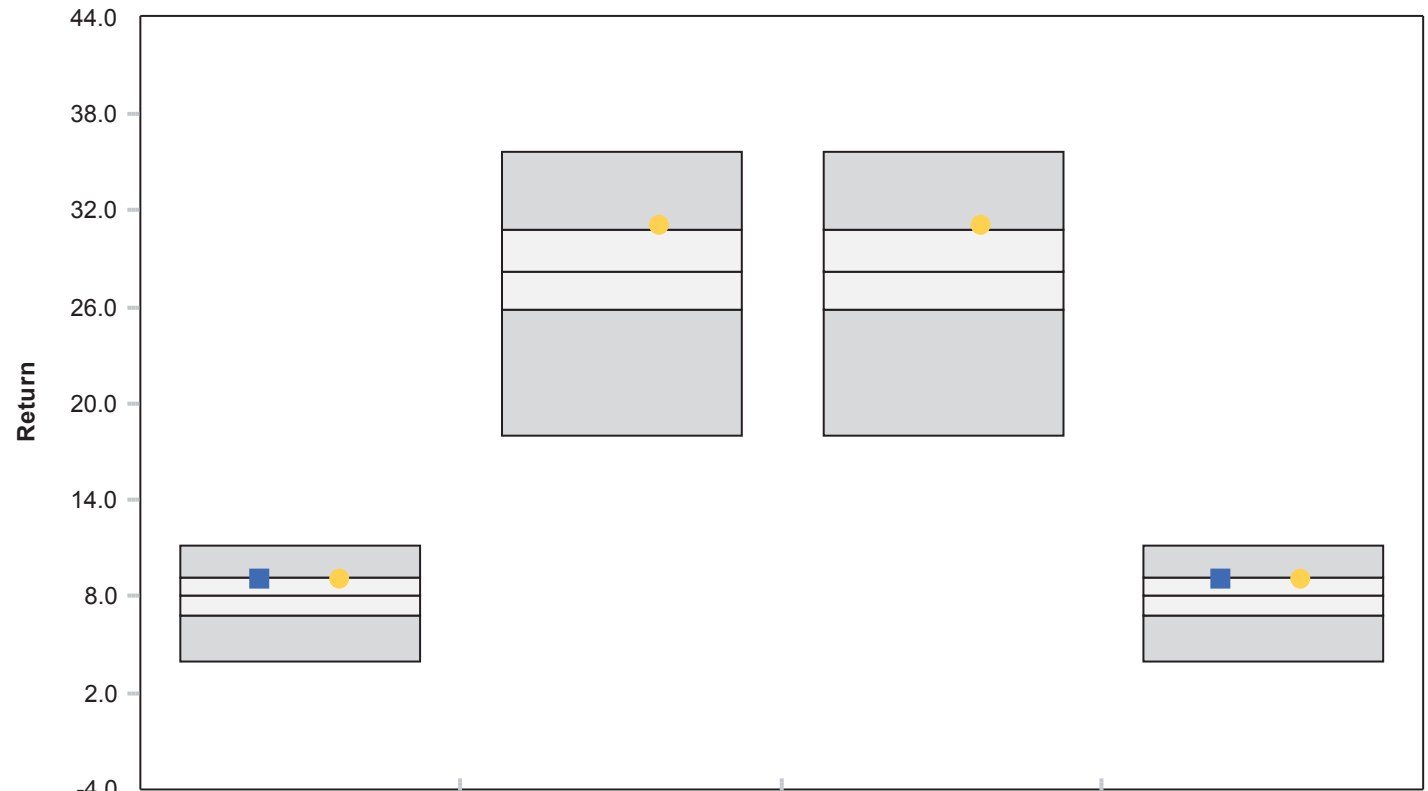
Domestic Equity vs. Russell 3000 Index

Buy-and-Hold Portfolio	8.69
Portfolio Trading	0.09
Actual Return	8.78
Benchmark Return	9.10
Actual Active Return	-0.32
Stock Selection	-0.23
Sector Selection	-0.13
Interaction	0.00
Total Selection	-0.36
Portfolio Trading	0.09
Benchmark Trading	0.06
Active Trading Impact	0.03
Buy & Hold Active Return	-0.32

	Allocation-10/01/2019		Performance-1 Quarter Ending December 31, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	9.31	9.34	8.53	9.06	-0.05	0.00	0.00	-0.05
Consumer Discretionary	10.34	10.38	4.88	5.74	-0.09	0.00	0.00	-0.09
Consumer Staples	6.82	6.75	3.59	3.64	0.00	0.00	0.00	-0.01
Energy	4.36	4.20	5.87	5.83	0.00	-0.01	0.00	0.00
Financials	12.99	13.53	9.77	9.61	0.02	0.00	0.00	0.02
Health Care	13.20	13.52	13.95	14.52	-0.08	-0.02	0.00	-0.09
Industrials	10.08	10.11	5.91	5.91	0.00	0.00	0.00	0.00
Information Technology	21.09	21.48	13.99	14.00	0.00	-0.02	0.00	-0.02
Materials	3.18	2.91	6.68	6.87	-0.01	-0.01	0.00	-0.01
Real Estate	4.32	4.29	0.07	0.66	-0.03	0.00	0.00	-0.03
Utilities	3.91	3.49	0.34	0.37	0.00	-0.04	0.00	-0.04
Cash	0.39	0.00	0.00	0.00	0.00	-0.03	0.00	-0.03
Total	100.00	100.00	8.69	9.04	-0.23	-0.13	0.00	-0.36



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



■ Vanguard Total Stock Mkt Index Fund

● Russell 3000 Index

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

	Current Quarter	2019	Trailing 12-months	Fiscal Year To Date
	9.01 (30)	N/A	N/A	9.01 (30)
	9.10 (27)	31.02 (23)	31.02 (23)	9.10 (27)
5th Percentile	11.13	35.67	35.67	11.13
1st Quartile	9.16	30.87	30.87	9.16
Median	8.07	28.19	28.19	8.07
3rd Quartile	6.80	25.82	25.82	6.80
95th Percentile	3.93	18.01	18.01	3.93
Population	750	738	738	750

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)	241,161	245,925
Median Mkt. Cap (\$M)	1,175	1,775
Price/Earnings ratio	22.66	22.63
Price/Book ratio	3.50	3.50
5 Yr. EPS Growth Rate (%)	14.21	14.19
Current Yield (%)	1.79	1.79
Number of Stocks	3,550	2,992

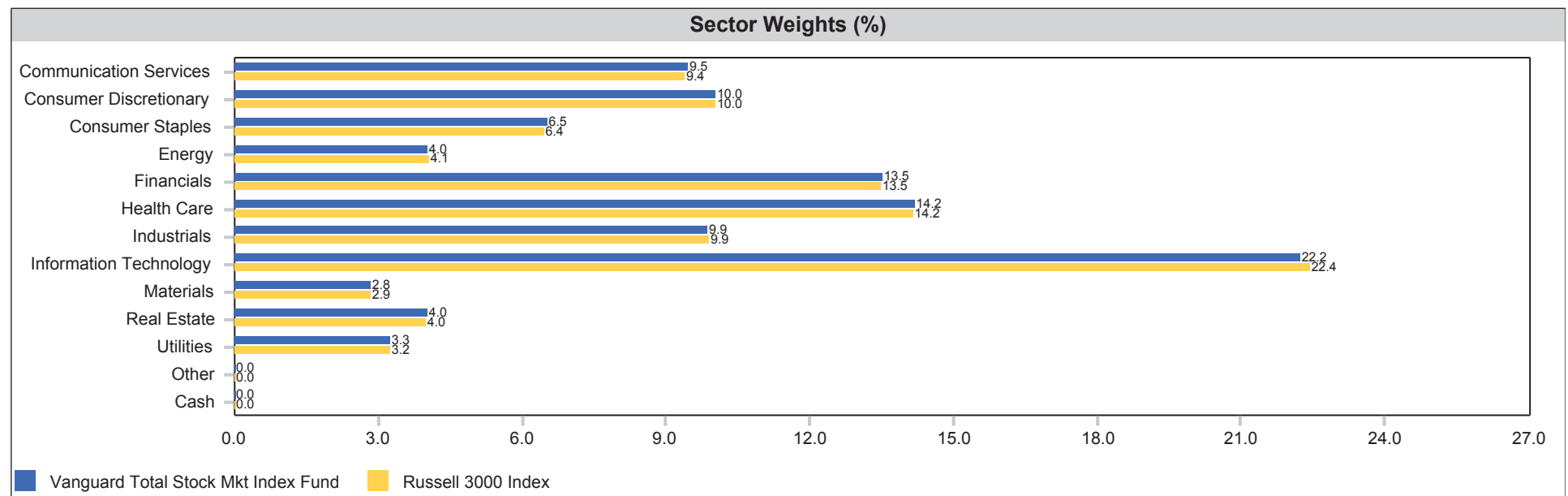
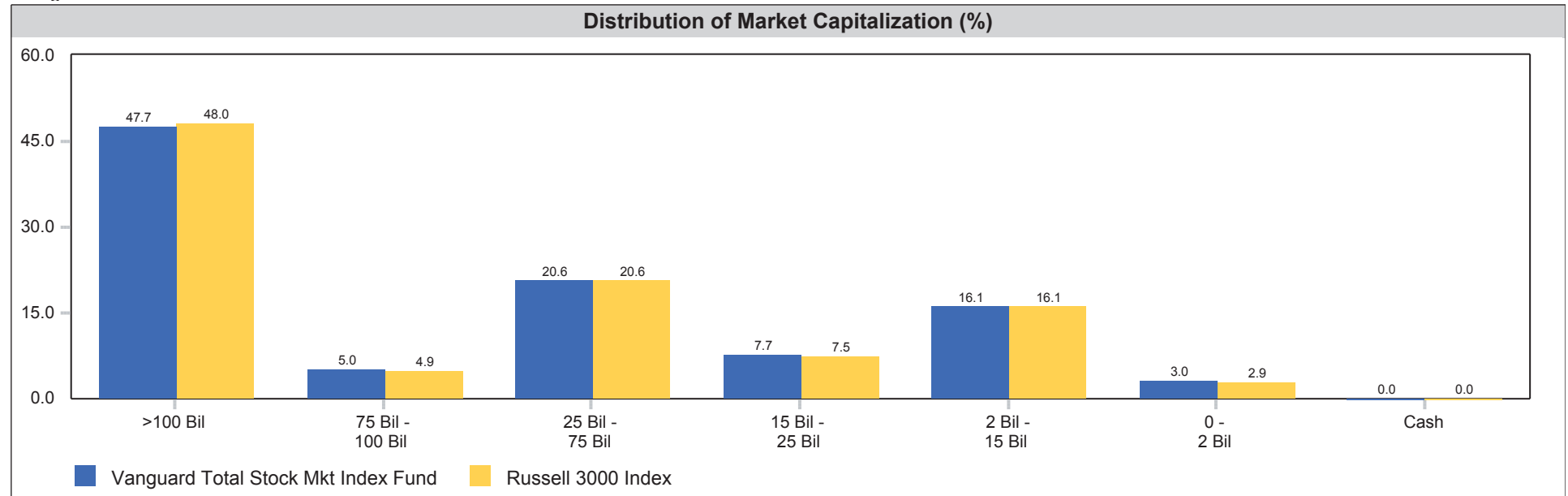
<b>Top Ten Equity Holdings</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Microsoft Corp	3.79	3.75	0.04	13.82
Apple Inc	3.70	4.11	-0.41	31.50
Amazon.com Inc	2.45	2.41	0.04	6.45
Facebook Inc	1.56	1.54	0.02	15.26
Berkshire Hathaway Inc	1.35	1.39	-0.04	8.88
JPMorgan Chase & Co	1.29	1.37	-0.08	19.40
Alphabet Inc	1.26	1.26	0.00	9.68
Alphabet Inc	1.23	1.26	-0.03	9.68
Johnson & Johnson	1.21	1.22	-0.01	13.53
Visa Inc	1.01	1.01	0.00	9.42
% of Portfolio	18.85	19.32	-0.47	

<b>Ten Best Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
FuelCell Energy Inc	0.00	0.00	0.00	666.65
IVERIC bio Inc	0.00	0.00	0.00	666.07
Constellation Pharmaceuticals Inc	0.00	0.00	0.00	629.25
Forty Seven Inc	0.00	0.00	0.00	513.24
ChemoCentryx Inc	0.01	0.01	0.00	483.33
Axsome Therapeutics Inc	0.01	0.01	0.00	410.67
Kodiak Sciences Inc	0.01	0.01	0.00	400.34
Karuna Therapeutics Inc	0.00	0.00	0.00	361.64
Clearside Biomedical Inc	0.00	0.00	0.00	360.32
Intra-Cellular Therapies Inc	0.00	0.00	0.00	359.31
% of Portfolio	0.03	0.03	0.00	

<b>Ten Worst Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Spirit MTA REIT	0.00	0.00	0.00	-90.90
Lipocine Inc	0.00	0.00	0.00	-86.30
Hornbeck Offshore Services Inc.	0.00	0.00	0.00	-86.17
resTORbio Inc	0.00	0.00	0.00	-83.14
TransEnterix Inc	0.00	0.00	0.00	-81.76
Unit Corp	0.00	0.00	0.00	-79.42
Cyclerion Therapeutics Inc	0.00	0.00	0.00	-77.56
Cocrystal Pharma Inc	0.00	0.00	0.00	-75.83
Waitr Holdings Inc	0.00	0.00	0.00	-74.94
Alta Mesa Resources Inc	0.00	0.00	0.00	-74.00
% of Portfolio	0.00	0.00	0.00	



Vanguard Total Stock Mkt Index Fund vs. Russell 3000 Index



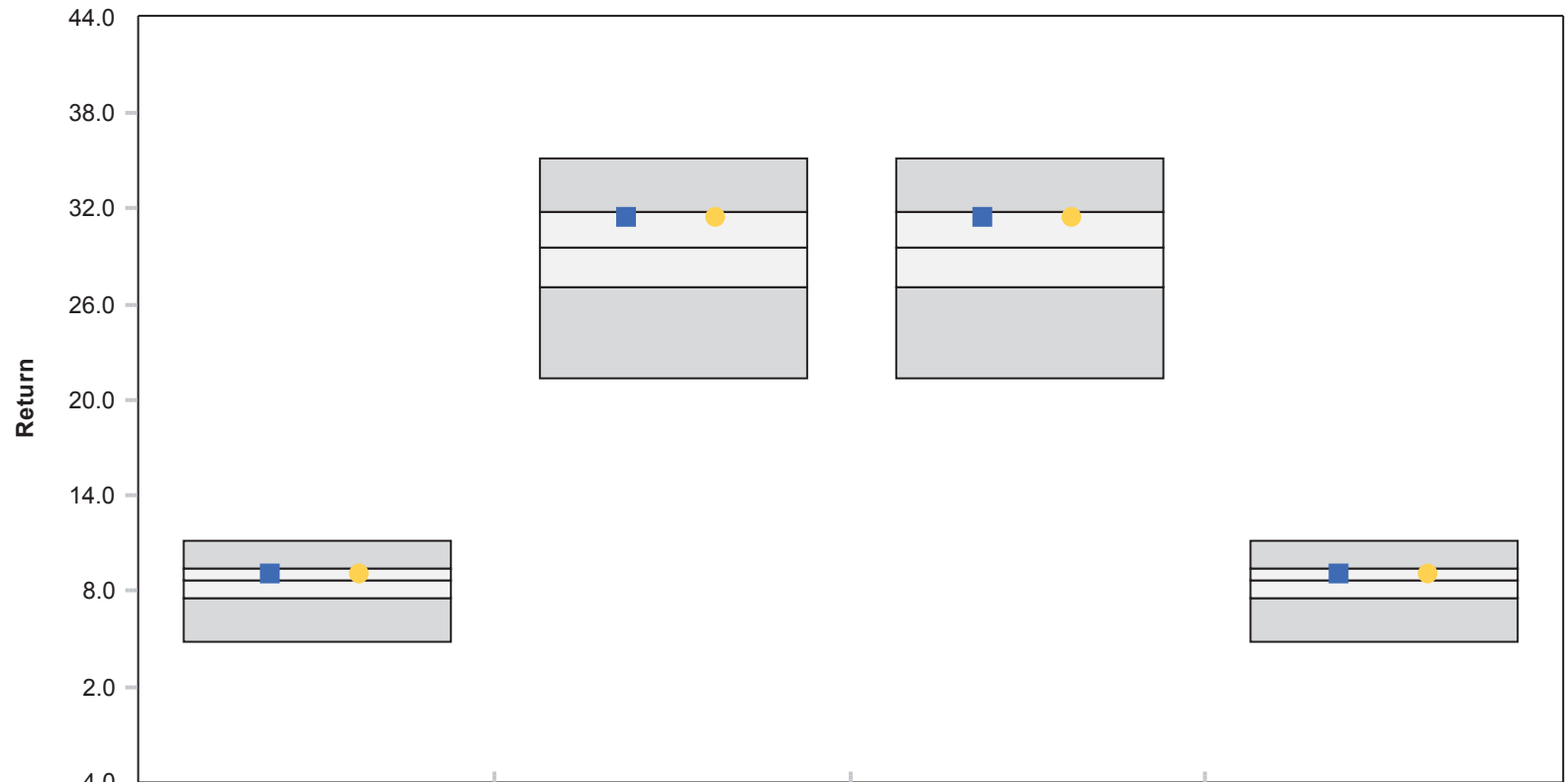
Vanguard Total Stock Mkt Index Fund vs. Russell 3000 Index

Buy-and-Hold Portfolio	8.86
Portfolio Trading	0.15
Actual Return	9.01
Benchmark Return	9.10
Actual Active Return	-0.09
Stock Selection	-0.09
Sector Selection	-0.09
Interaction	0.00
Total Selection	-0.18
Portfolio Trading	0.15
Benchmark Trading	0.06
Active Trading Impact	0.09
Buy & Hold Active Return	-0.09

	Allocation-10/01/2019		Performance-1 Quarter Ending December 31, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	9.33	9.34	8.90	9.06	-0.01	0.00	0.00	-0.01
Consumer Discretionary	10.27	10.38	5.70	5.74	0.00	0.00	0.00	0.00
Consumer Staples	6.79	6.75	3.64	3.64	0.00	0.00	0.00	0.00
Energy	4.14	4.20	5.66	5.83	-0.01	0.00	0.00	0.00
Financials	13.44	13.53	9.68	9.61	0.01	0.00	0.00	0.01
Health Care	13.39	13.52	14.49	14.52	0.00	-0.01	0.00	-0.01
Industrials	10.17	10.11	5.88	5.91	0.00	0.00	0.00	0.00
Information Technology	21.10	21.48	13.71	14.00	-0.06	-0.02	0.00	-0.08
Materials	2.87	2.91	6.68	6.87	-0.01	0.00	0.00	0.00
Real Estate	4.28	4.29	0.62	0.66	0.00	0.00	0.00	0.00
Utilities	3.50	3.49	0.40	0.37	0.00	0.00	0.00	0.00
Cash	0.72	0.00	0.00	0.00	0.00	-0.07	0.00	-0.07
Total	100.00	100.00	8.86	9.04	-0.09	-0.09	0.00	-0.18



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



■ Fidelity 500 Index Fund

● S&P 500

5th Percentile

1st Quartile

Median

3rd Quartile

95th Percentile

Population

**Current  
Quarter**

9.06 (38)

9.07 (38)

**2019**

31.47 (29)

31.49 (29)

**Trailing  
12-months**

31.47 (29)

31.49 (29)

**Fiscal Year  
To Date**

9.06 (38)

9.07 (38)

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)	286,330	287,781
Median Mkt. Cap (\$M)	23,997	23,997
Price/Earnings ratio	22.90	22.90
Price/Book ratio	3.66	3.66
5 Yr. EPS Growth Rate (%)	14.27	14.27
Current Yield (%)	1.86	1.86
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>
Apple Inc	4.56	4.58	-0.02	31.50
Microsoft Corp	4.47	4.50	-0.03	13.82
Amazon.com Inc	2.86	2.88	-0.02	6.45
Facebook Inc	1.84	1.85	-0.01	15.26
Berkshire Hathaway Inc	1.65	1.66	-0.01	8.88
JPMorgan Chase & Co	1.63	1.63	0.00	19.40
Alphabet Inc	1.49	1.50	-0.01	9.68
Alphabet Inc	1.49	1.49	0.00	9.68
Johnson & Johnson	1.43	1.43	0.00	13.53
Visa Inc	1.20	1.20	0.00	9.42
% of Portfolio	22.62	22.72	-0.10	

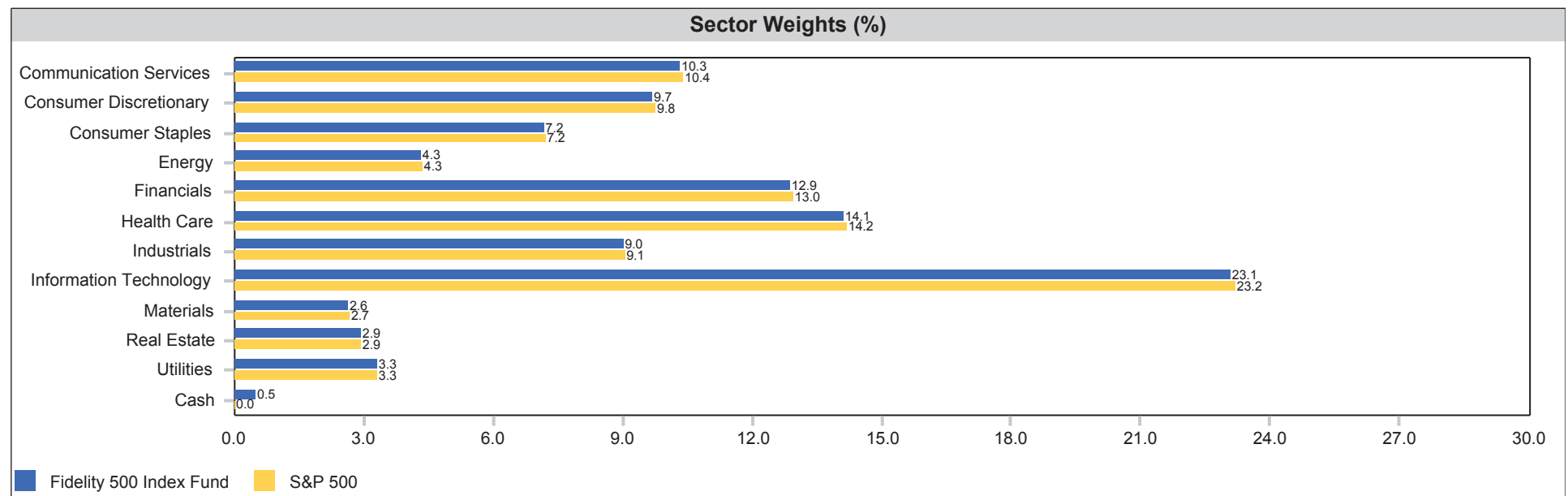
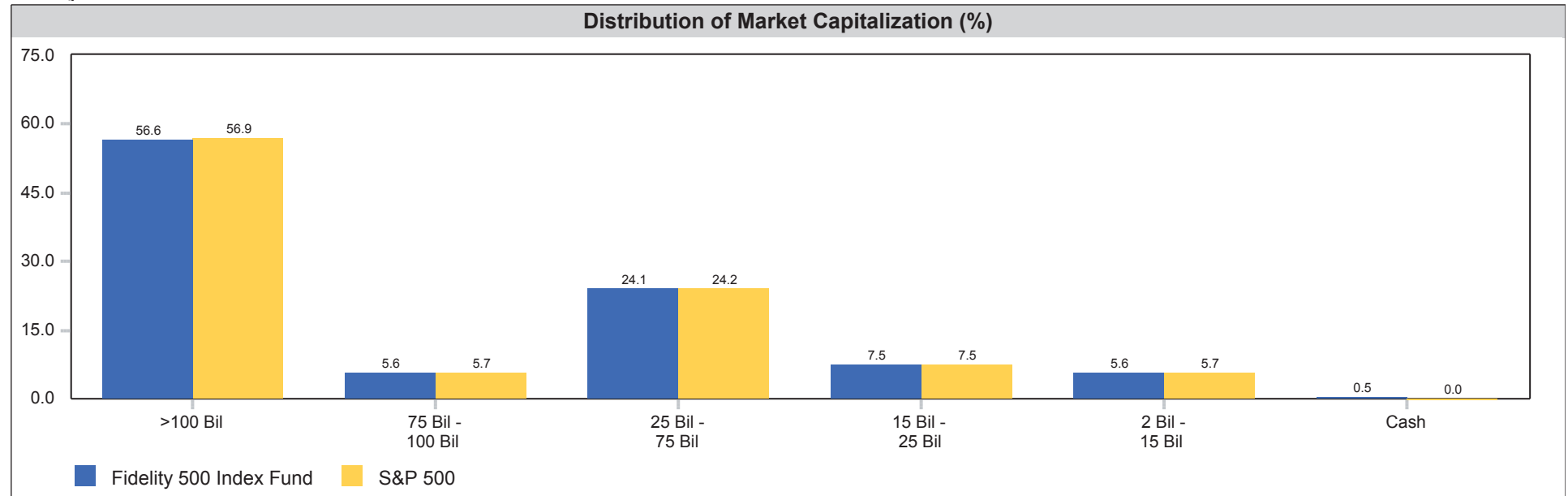
<b>Ten Best Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Advanced Micro Devices Inc	0.19	0.19	0.00	58.19
Qorvo Inc	0.05	0.05	0.00	56.77
Align Technology Inc	0.07	0.07	0.00	54.23
Skyworks Solutions Inc	0.08	0.08	0.00	53.21
Centene Corp	0.10	0.10	0.00	45.33
Tiffany & Co.	0.05	0.05	0.00	44.91
Humana Inc.	0.18	0.18	0.00	43.57
Fortinet Inc	0.06	0.06	0.00	39.08
Freeport-McMoRan Inc	0.07	0.07	0.00	37.81
Unitedhealth Group Inc	1.04	1.04	0.00	35.80
% of Portfolio	1.89	1.89	0.00	

<b>Ten Worst Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Twitter Inc	0.09	0.09	0.00	-22.21
Ventas Inc.	0.08	0.08	0.00	-19.86
Expedia Group Inc	0.06	0.06	0.00	-19.26
Dollar Tree Inc	0.08	0.08	0.00	-17.62
Arista Networks Inc	0.04	0.04	0.00	-14.87
Boeing Co	0.65	0.65	0.00	-13.89
Public Storage	0.12	0.12	0.00	-12.32
Alliance Data Systems Corp	0.02	0.02	0.00	-11.92
Ball Corp	0.08	0.08	0.00	-10.98
YUM! Brands Inc.	0.11	0.11	0.00	-10.82
% of Portfolio	1.33	1.33	0.00	





Fidelity 500 Index Fund vs. S&P 500



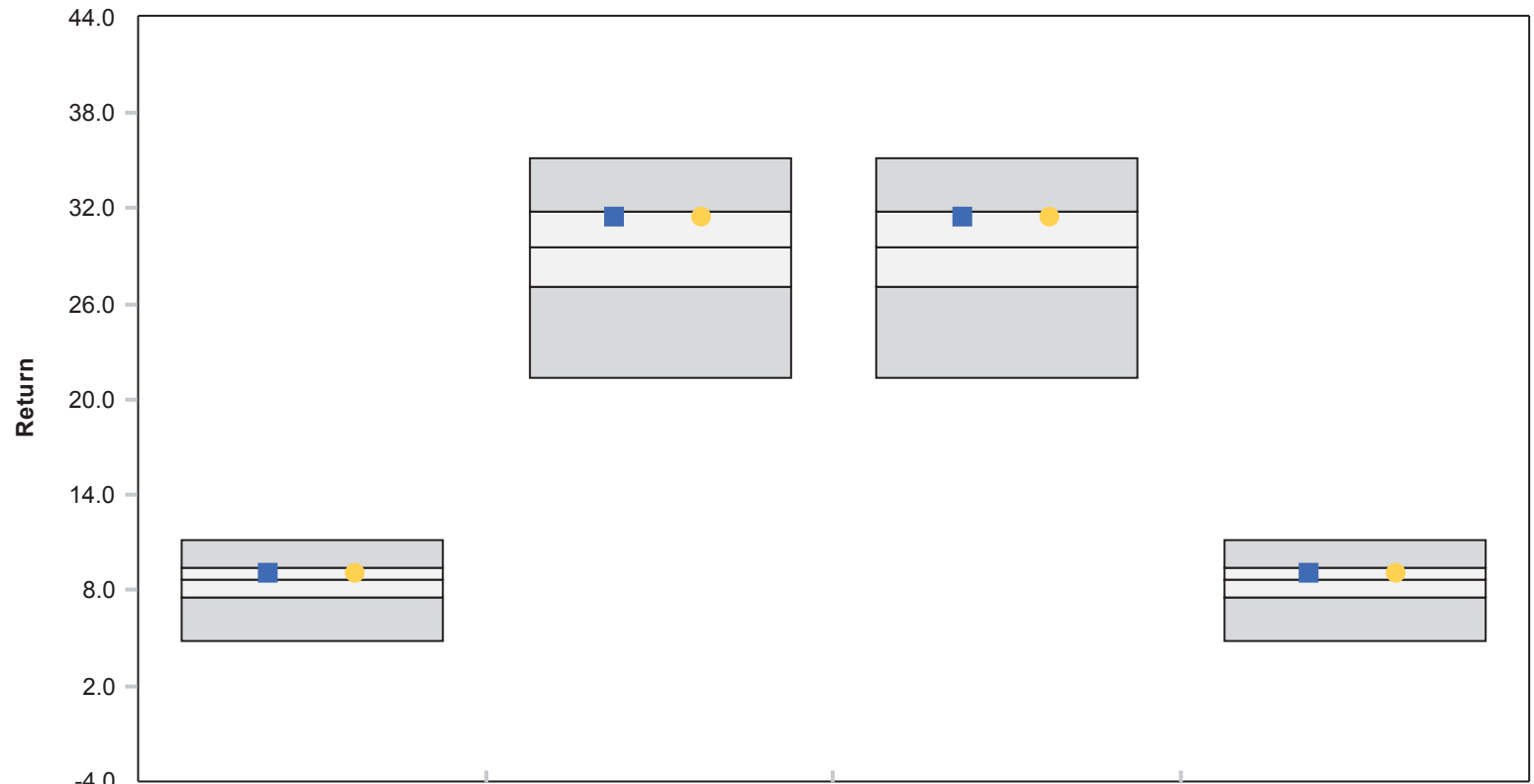
Fidelity 500 Index Fund vs. S&amp;P 500

Buy-and-Hold Portfolio	8.99
Portfolio Trading	0.07
Actual Return	9.06
Benchmark Return	9.07
Actual Active Return	-0.01
Stock Selection	0.00
Sector Selection	-0.02
Interaction	0.00
Total Selection	-0.02
Portfolio Trading	0.07
Benchmark Trading	0.06
Active Trading Impact	0.02
Buy & Hold Active Return	-0.01

	Allocation-10/01/2019		Performance-1 Quarter Ending December 31, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	10.33	10.36	8.97	8.97	0.00	0.00	0.00	0.00
Consumer Discretionary	10.09	10.11	4.34	4.34	0.00	0.00	0.00	0.00
Consumer Staples	7.58	7.60	3.51	3.51	0.00	0.00	0.00	0.00
Energy	4.51	4.52	5.47	5.47	0.00	0.00	0.00	0.00
Financials	12.91	12.94	10.45	10.45	0.00	0.00	0.00	0.00
Health Care	13.62	13.65	13.97	13.97	0.00	0.00	0.00	0.00
Industrials	9.32	9.34	5.52	5.52	0.00	0.00	0.00	0.00
Information Technology	21.88	21.93	14.45	14.45	0.00	0.00	0.00	0.00
Materials	2.72	2.73	6.38	6.38	0.00	0.00	0.00	0.00
Real Estate	3.21	3.22	-0.56	-0.56	0.00	0.00	0.00	0.00
Utilities	3.58	3.59	0.76	0.76	0.00	0.00	0.00	0.00
Cash	0.25	0.00	0.00	0.00	0.00	-0.02	0.00	-0.02
Total	100.00	100.00	8.99	9.01	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**

9.06 (38)

9.07 (38)

11.12

9.42

8.71

7.59

4.83

763

**2019**

31.46 (30)

31.49 (29)

35.16

31.77

29.62

27.11

21.38

736

**Trailing  
12-months**

31.46 (30)

31.49 (29)

35.16

31.77

29.62

27.11

21.38

736

**Fiscal Year  
To Date**

9.06 (38)

9.07 (38)

11.12

9.42

8.71

7.59

4.83

763

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)	287,807	287,781
Median Mkt. Cap (\$M)	23,933	23,997
Price/Earnings ratio	22.90	22.90
Price/Book ratio	3.66	3.66
5 Yr. EPS Growth Rate (%)	14.27	14.27
Current Yield (%)	1.86	1.86
Number of Stocks	510	505

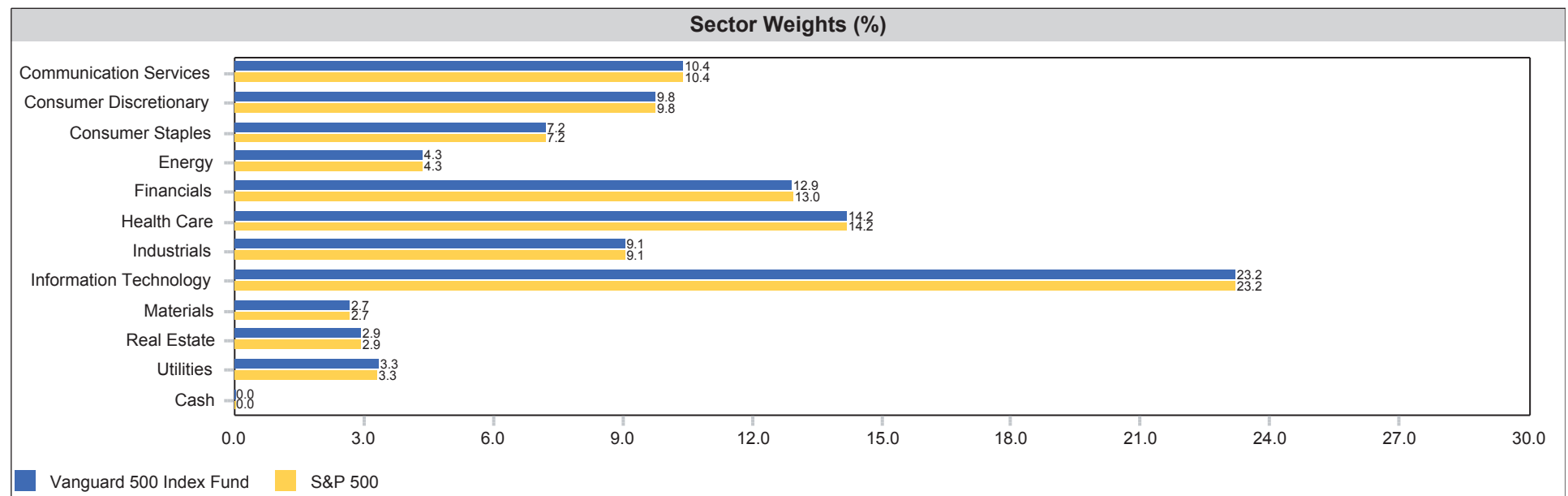
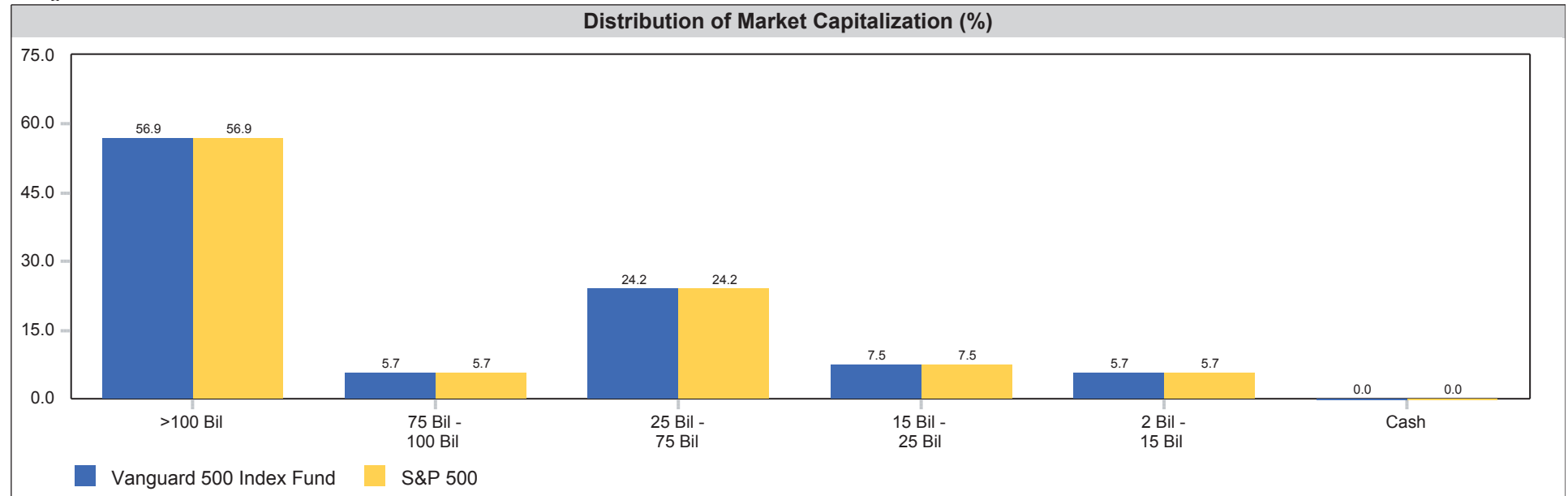
<b>Top Ten Equity Holdings</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Apple Inc	4.58	4.58	0.00	31.50
Microsoft Corp	4.50	4.50	0.00	13.82
Amazon.com Inc	2.88	2.88	0.00	6.45
Facebook Inc	1.85	1.85	0.00	15.26
JPMorgan Chase & Co	1.62	1.63	-0.01	19.40
Berkshire Hathaway Inc	1.61	1.66	-0.05	8.88
Alphabet Inc	1.50	1.49	0.01	9.68
Alphabet Inc	1.49	1.50	-0.01	9.68
Johnson & Johnson	1.44	1.43	0.01	13.53
Visa Inc	1.20	1.20	0.00	9.42
% of Portfolio	22.67	22.72	-0.05	

<b>Ten Best Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Advanced Micro Devices Inc	0.19	0.19	0.00	58.19
Qorvo Inc	0.05	0.05	0.00	56.77
Align Technology Inc	0.07	0.07	0.00	54.23
Skyworks Solutions Inc	0.08	0.08	0.00	53.21
Centene Corp	0.10	0.10	0.00	45.33
Tiffany & Co.	0.05	0.05	0.00	44.91
Humana Inc.	0.18	0.18	0.00	43.57
Fortinet Inc	0.06	0.06	0.00	39.08
Freeport-McMoRan Inc	0.07	0.07	0.00	37.81
Unitedhealth Group Inc	1.04	1.04	0.00	35.80
% of Portfolio	1.89	1.89	0.00	

<b>Ten Worst Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Twitter Inc	0.09	0.09	0.00	-22.21
Ventas Inc.	0.08	0.08	0.00	-19.86
Expedia Group Inc	0.06	0.06	0.00	-19.26
Dollar Tree Inc	0.08	0.08	0.00	-17.62
Arista Networks Inc	0.04	0.04	0.00	-14.87
Boeing Co	0.65	0.65	0.00	-13.89
Macerich Co (The)	0.00	0.00	0.00	-12.54
Public Storage	0.12	0.12	0.00	-12.32
Alliance Data Systems Corp	0.02	0.02	0.00	-11.92
Ball Corp	0.08	0.08	0.00	-10.98
% of Portfolio	1.22	1.22	0.00	



Vanguard 500 Index Fund vs. S&P 500



## Buy and Hold Sector Attribution

1 Quarter Ending December 31, 2019

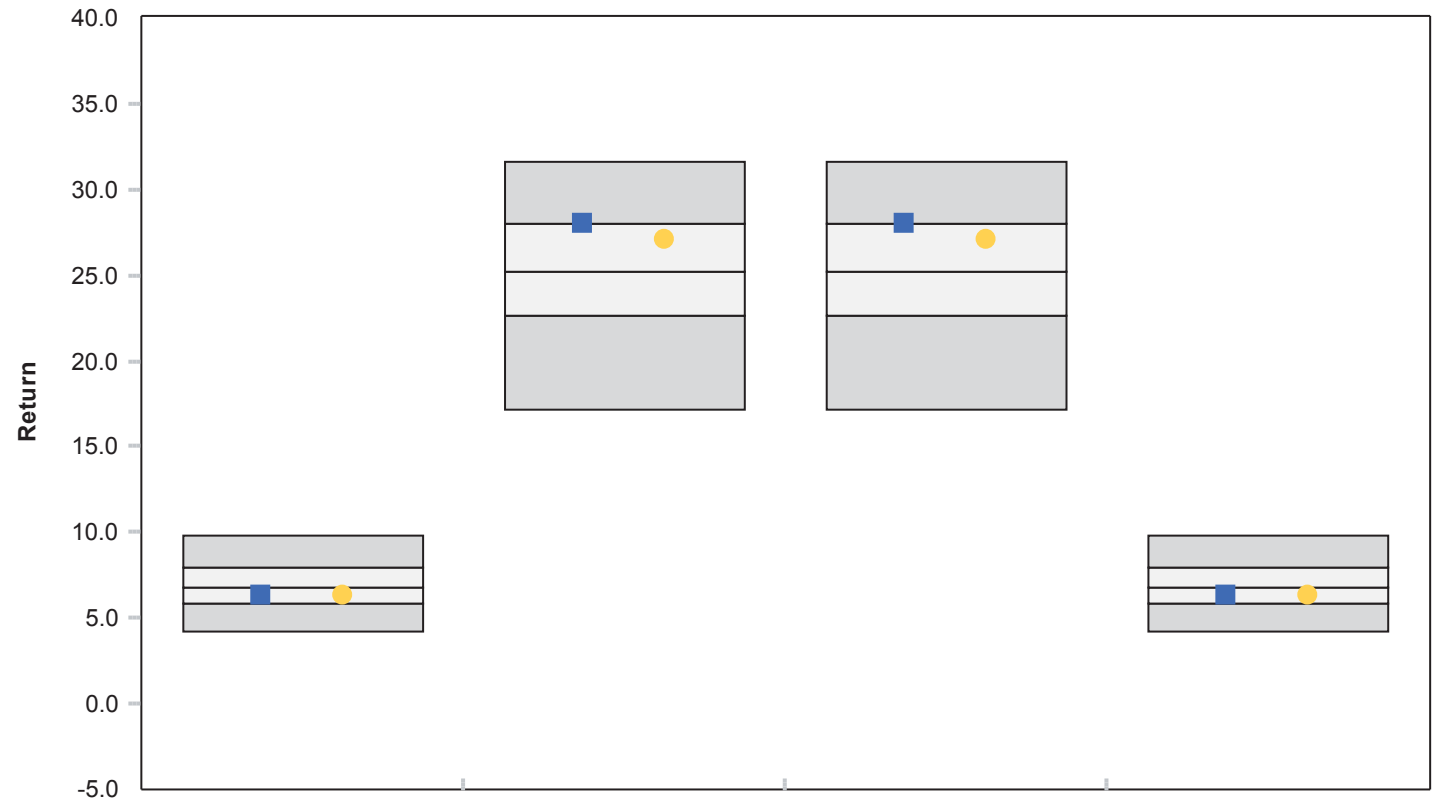
Vanguard 500 Index Fund vs. S&P 500

Buy-and-Hold Portfolio	8.98
Portfolio Trading	0.08
Actual Return	9.06
Benchmark Return	9.07
Actual Active Return	-0.01
Stock Selection	-0.01
Sector Selection	-0.03
Interaction	0.00
Total Selection	-0.03
Portfolio Trading	0.08
Benchmark Trading	0.06
Active Trading Impact	0.02
Buy & Hold Active Return	-0.01

	Allocation-10/01/2019		Performance-1 Quarter Ending December 31, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	10.34	10.36	8.97	8.97	0.00	0.00	0.00	0.00
Consumer Discretionary	10.09	10.11	4.34	4.34	0.00	0.00	0.00	0.00
Consumer Staples	7.58	7.60	3.51	3.51	0.00	0.00	0.00	0.00
Energy	4.51	4.52	5.47	5.47	0.00	0.00	0.00	0.00
Financials	12.89	12.94	10.44	10.45	0.00	0.00	0.00	0.00
Health Care	13.59	13.65	13.92	13.97	-0.01	0.00	0.00	-0.01
Industrials	9.32	9.34	5.52	5.52	0.00	0.00	0.00	0.00
Information Technology	21.88	21.93	14.45	14.45	0.00	0.00	0.00	0.00
Materials	2.72	2.73	6.38	6.38	0.00	0.00	0.00	0.00
Real Estate	3.21	3.22	-0.56	-0.56	0.00	0.00	0.00	0.00
Utilities	3.58	3.59	0.76	0.76	0.00	0.00	0.00	0.00
Cash	0.27	0.00	0.00	0.00	0.00	-0.02	0.00	-0.02
Total	100.00	100.00	8.98	9.01	-0.01	-0.03	0.00	-0.03



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



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

5th Percentile	9.86	31.64	31.64	9.86
1st Quartile	7.93	27.96	27.96	7.93
Median	6.78	25.14	25.14	6.78
3rd Quartile	5.88	22.66	22.66	5.88
95th Percentile	4.23	17.20	17.20	4.23
Population	160	158	158	160

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.  
Returns are net of fees and are expressed as percentages.  
4.17



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)	16,310	15,840
Median Mkt. Cap (\$M)	12,961	8,019
Price/Earnings ratio	17.65	18.92
Price/Book ratio	2.31	2.28
5 Yr. EPS Growth Rate (%)	7.35	7.72
Current Yield (%)	2.28	2.33
Number of Stocks	200	631

<b>Top Ten Equity Holdings</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Newmont Corporation	1.60	0.73	0.87	14.99
WEC Energy Group Inc	1.30	0.60	0.70	-2.37
Motorola Solutions Inc	1.24	0.15	1.09	-5.07
Eversource Energy	1.23	0.57	0.66	0.17
FirstEnergy Corp.	1.18	0.54	0.64	1.58
Willis Towers Watson plc	1.16	0.54	0.62	4.98
DTE Energy Co	1.11	0.50	0.61	-1.53
Entergy Corp.	1.07	0.49	0.58	2.90
Royal Caribbean Cruises Ltd	1.00	0.47	0.53	24.00
American Water Works Co Inc	1.00	0.46	0.54	-0.69
% of Portfolio	11.89	5.05	6.84	

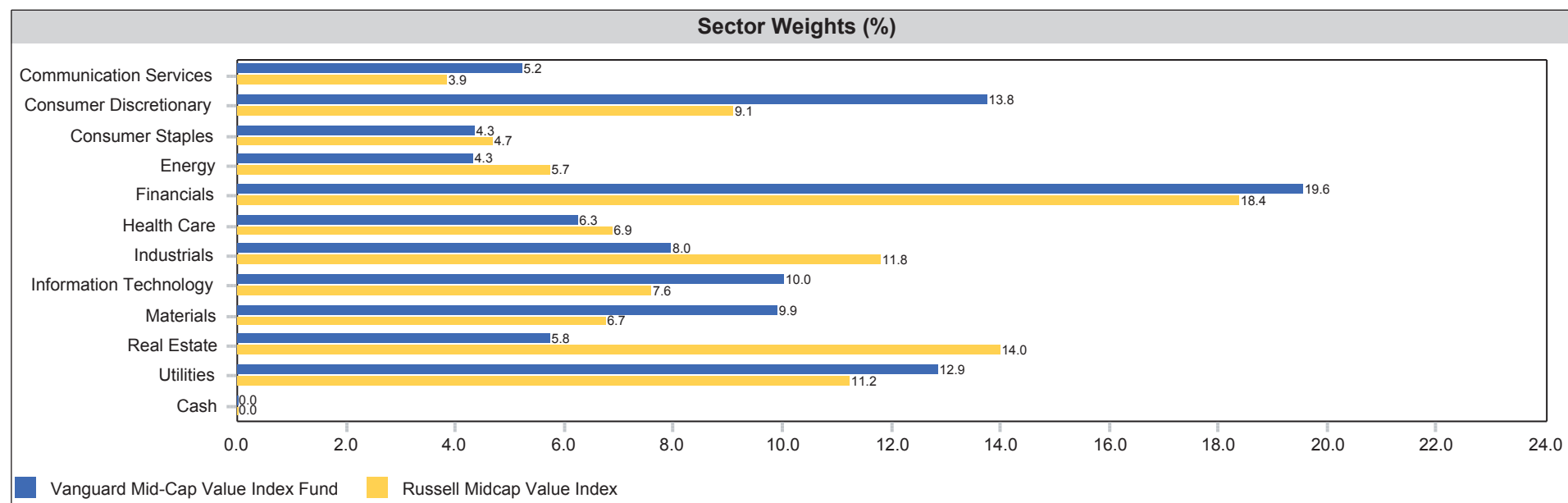
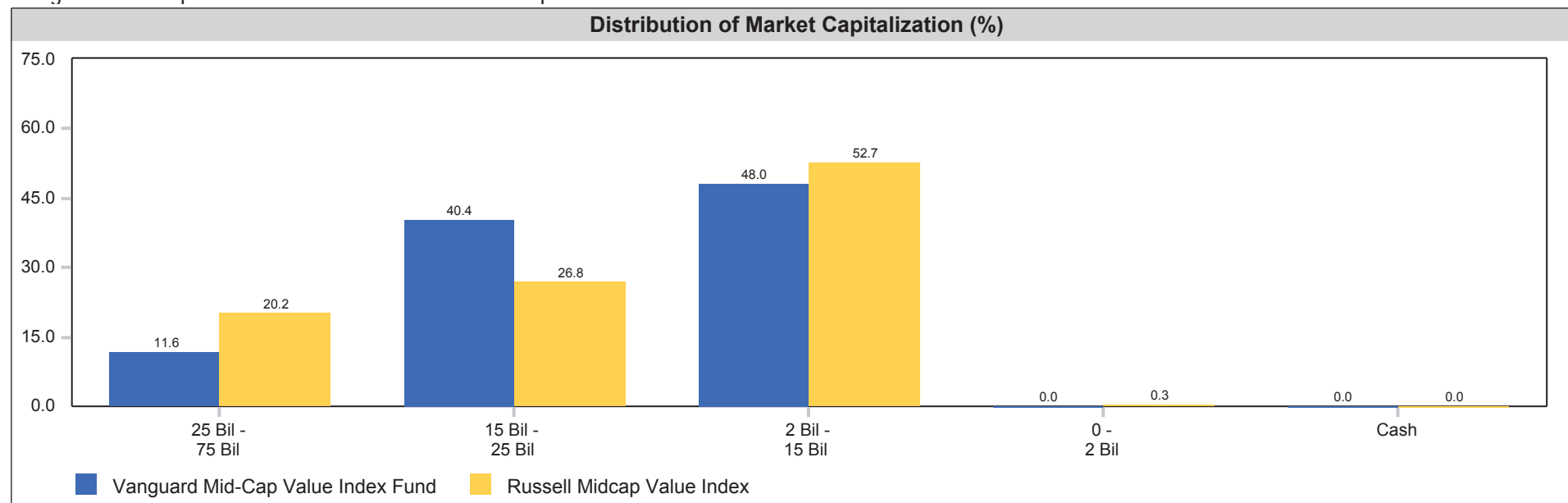
<b>Ten Best Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Qorvo Inc	0.60	0.28	0.32	56.77
Tiffany & Co.	0.34	0.33	0.01	44.91
Freeport-McMoRan Inc	0.81	0.39	0.42	37.81
United Rentals Inc.	0.56	0.08	0.48	33.80
DaVita Inc	0.28	0.15	0.13	31.47
Halliburton Co	0.91	0.44	0.47	30.90
DXC Technology Co	0.22	0.20	0.02	28.15
Best Buy Co Inc	0.88	0.33	0.55	28.01
Jones Lang LaSalle Inc	0.20	0.16	0.04	25.52
Xerox Holdings Corp	0.30	0.14	0.16	24.10
% of Portfolio	5.10	2.50	2.60	

<b>Ten Worst Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Vistra Energy Corp	0.40	0.20	0.20	-13.54
Alliance Data Systems Corp	0.00	0.08	-0.08	-11.92
Ball Corp	0.47	0.00	0.47	-10.98
Hasbro Inc.	0.61	0.00	0.61	-10.40
W. P. Carey Inc	0.62	0.28	0.34	-9.40
Cincinnati Financial Corp	0.77	0.33	0.44	-9.39
Franklin Resources Inc	0.32	0.15	0.17	-9.04
Textron Inc	0.46	0.21	0.25	-8.86
CenterPoint Energy Inc.	0.61	0.28	0.33	-8.58
Ally Financial Inc	0.52	0.24	0.28	-7.33
% of Portfolio	4.78	1.77	3.01	





## 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	6.20
Portfolio Trading	0.09
Actual Return	6.28
Benchmark Return	6.36
Actual Active Return	-0.07
Stock Selection	-0.58
Sector Selection	0.63
Interaction	-0.19
Total Selection	-0.14
Portfolio Trading	0.09
Benchmark Trading	0.02
Active Trading Impact	0.07
Buy & Hold Active Return	-0.07

	Allocation-10/01/2019		Performance-1 Quarter Ending December 31, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	5.21	3.64	10.38	11.04	-0.02	0.07	-0.01	0.04
Consumer Discretionary	13.82	8.94	8.55	8.29	0.02	0.10	0.01	0.13
Consumer Staples	4.49	4.57	3.33	6.49	-0.14	0.00	0.00	-0.14
Energy	3.25	5.50	11.23	10.54	0.04	-0.09	-0.02	-0.07
Financials	19.73	18.93	5.31	7.05	-0.33	0.01	-0.01	-0.34
Health Care	6.52	6.70	4.13	7.81	-0.25	0.00	0.01	-0.24
Industrials	7.61	11.40	9.24	9.44	-0.02	-0.12	0.01	-0.13
Information Technology	10.48	7.22	9.86	11.43	-0.11	0.17	-0.05	0.00
Materials	8.82	6.53	10.69	9.39	0.09	0.07	0.03	0.19
Real Estate	6.05	14.73	1.38	-0.28	0.24	0.57	-0.14	0.67
Utilities	13.95	11.83	-0.86	-0.11	-0.09	-0.14	-0.02	-0.24
Cash	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	100.00	100.00	6.20	6.34	-0.58	0.63	-0.19	-0.14



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



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

5th Percentile	13.57	42.49	42.49	13.57
1st Quartile	8.86	37.31	37.31	8.86
Median	7.45	34.41	34.41	7.45
3rd Quartile	6.35	31.44	31.44	6.35
95th Percentile	4.25	26.84	26.84	4.25
Population	372	368	368	372

Parentheses contain percentile rankings.  
 Calculation based on monthly periodicity.  
 Returns are net of fees and are expressed as percentages.  
 4.21



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

<u>Portfolio Characteristics</u>		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	19,247	19,976
Median Mkt. Cap (\$M)	14,984	9,644
Price/Earnings ratio	32.81	29.29
Price/Book ratio	5.02	6.02
5 Yr. EPS Growth Rate (%)	16.26	17.21
Current Yield (%)	0.85	0.74
Number of Stocks	161	403

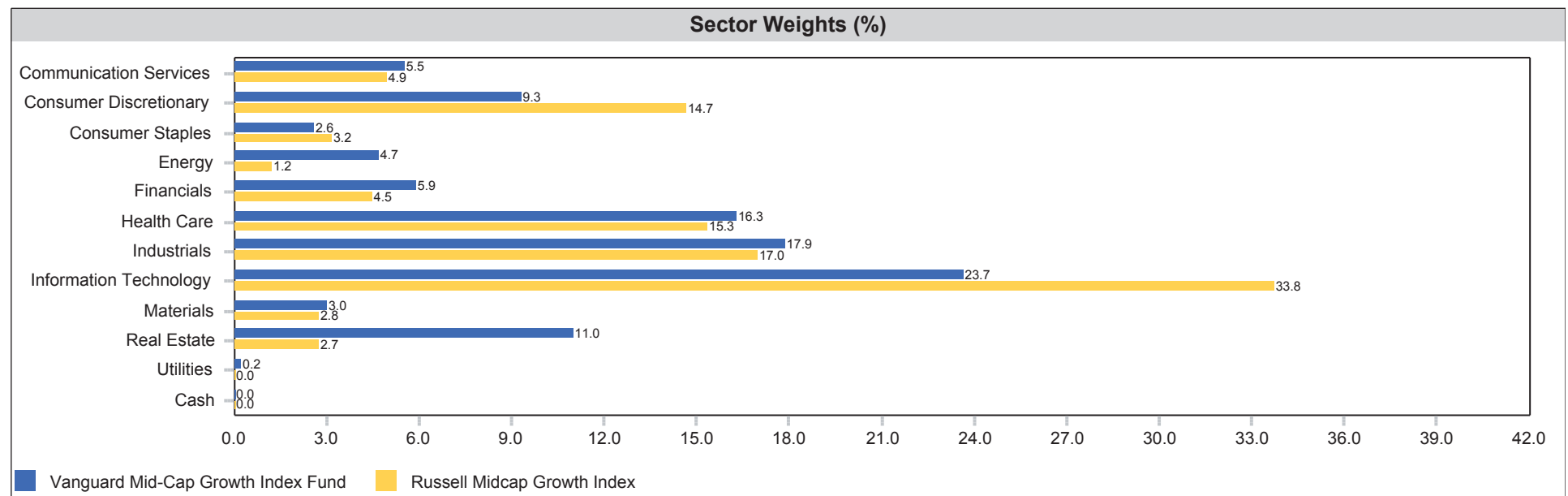
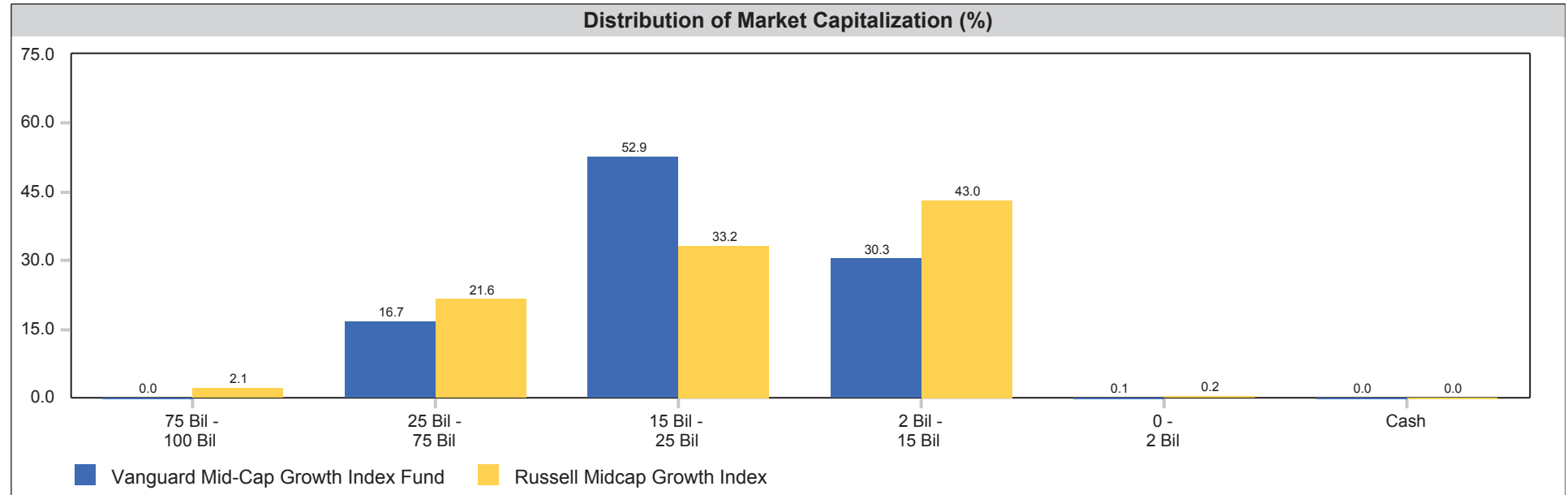
<u>Top Ten Equity Holdings</u>				
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Amphenol Corp	1.46	0.99	0.47	12.42
ONEOK Inc.	1.42	0.31	1.11	4.02
IHS Markit Ltd	1.30	0.59	0.71	12.66
TransDigm Group Inc	1.29	0.70	0.59	13.75
KLA Corp	1.28	0.89	0.39	12.27
SBA Communications Corp	1.23	0.85	0.38	0.09
lululemon athletica inc	1.23	0.86	0.37	20.33
Advanced Micro Devices Inc	1.16	1.49	-0.33	58.19
Iqvia Holdings Inc	1.16	0.37	0.79	3.43
Microchip Technology Inc	1.14	0.21	0.93	13.16
% of Portfolio	12.67	7.26	5.41	

<u>Ten Best Performers</u>				
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Advanced Micro Devices Inc	1.16	1.49	-0.33	58.19
Align Technology Inc	0.90	0.68	0.22	54.23
Skyworks Solutions Inc	0.94	0.03	0.91	53.21
DexCom Inc	0.91	0.62	0.29	46.57
Centene Corp	1.12	0.68	0.44	45.33
Tiffany & Co.	0.35	0.00	0.35	44.91
Alnylam Pharmaceuticals Inc	0.58	0.32	0.26	43.21
Carvana Co	0.10	0.13	-0.03	39.47
Fortinet Inc	0.70	0.48	0.22	39.08
RingCentral Inc	0.29	0.39	-0.10	34.23
% of Portfolio	7.05	4.82	2.23	

<u>Ten Worst Performers</u>				
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Pinterest Inc	0.26	0.00	0.26	-29.53
Twitter Inc	1.07	0.77	0.30	-22.21
Wayfair Inc	0.26	0.18	0.08	-19.40
Expedia Group Inc	0.68	0.41	0.27	-19.26
Dollar Tree Inc	1.01	0.38	0.63	-17.62
Arista Networks Inc	0.49	0.38	0.11	-14.87
CrowdStrike Holdings Inc	0.05	0.00	0.05	-14.47
Interactive Brokers Group Inc	0.08	0.03	0.05	-13.14
Dropbox Inc	0.18	0.12	0.06	-11.20
Ball Corp	0.48	0.66	-0.18	-10.98
% of Portfolio	4.56	2.93	1.63	



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



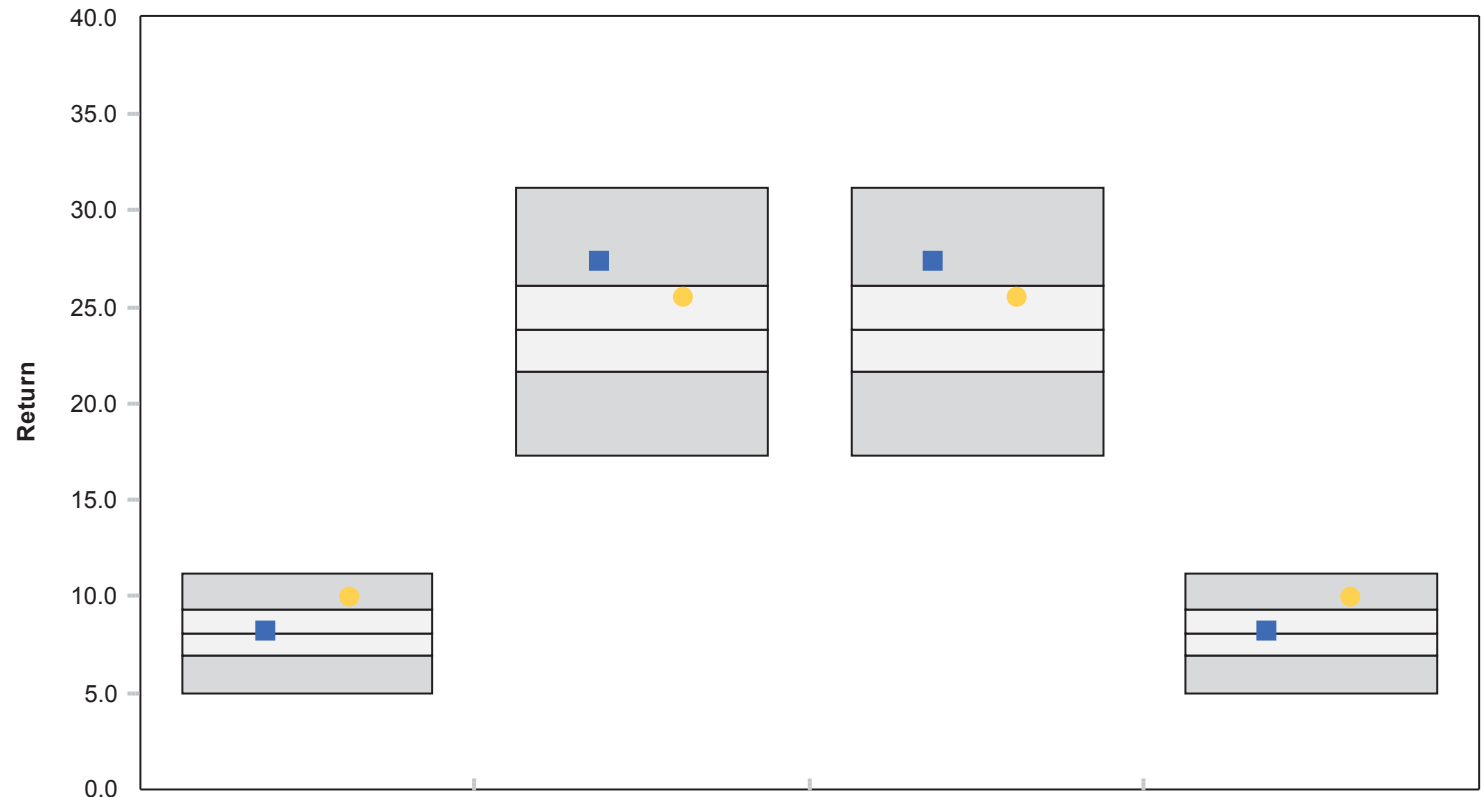
Vanguard Mid-Cap Growth Index Fund vs. Russell Midcap Growth Index

Buy-and-Hold Portfolio	7.51
Portfolio Trading	-0.04
Actual Return	7.47
Benchmark Return	8.17
Actual Active Return	-0.70
Stock Selection	0.42
Sector Selection	-0.76
Interaction	-0.29
Total Selection	-0.63
Portfolio Trading	-0.04
Benchmark Trading	0.03
Active Trading Impact	-0.07
Buy & Hold Active Return	-0.70

	Allocation-10/01/2019		Performance-1 Quarter Ending December 31, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	5.39	4.88	-3.98	1.49	-0.27	-0.03	-0.03	-0.33
Consumer Discretionary	9.75	15.49	4.44	5.09	-0.10	0.18	0.04	0.11
Consumer Staples	2.64	3.36	5.22	1.80	0.12	0.05	-0.02	0.14
Energy	5.39	1.27	6.72	6.36	0.00	-0.07	0.01	-0.05
Financials	5.56	4.43	11.23	8.97	0.10	0.01	0.03	0.14
Health Care	15.09	14.58	15.91	13.85	0.30	0.03	0.01	0.34
Industrials	17.17	17.32	5.63	6.34	-0.12	0.00	0.00	-0.12
Information Technology	23.73	32.72	12.51	11.00	0.49	-0.26	-0.14	0.10
Materials	3.32	3.00	-1.78	-0.37	-0.04	-0.03	0.00	-0.07
Real Estate	11.49	2.94	-1.01	1.17	-0.06	-0.60	-0.19	-0.85
Utilities	0.23	0.00	0.45	0.00	0.00	-0.02	0.00	-0.02
Cash	0.24	0.00	0.00	0.00	0.00	-0.02	0.00	-0.02
Total	100.00	100.00	7.51	8.14	0.42	-0.76	-0.29	-0.63



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



■ Vanguard Small Cap Index Fund  
● Russell 2000 Index

	Current Quarter	2019	Trailing 12-months	Fiscal Year To Date
5th Percentile	11.21	31.18	31.18	11.21
1st Quartile	9.32	26.15	26.15	9.32
Median	8.12	23.86	23.86	8.12
3rd Quartile	6.90	21.66	21.66	6.90
95th Percentile	4.97	17.30	17.30	4.97
Population	787	780	780	787

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.  
Returns are net of fees and are expressed as percentages.  
4.25



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

<b>Portfolio Characteristics</b>		
	<b>Portfolio</b>	<b>Benchmark</b>
Wtd. Avg. Mkt. Cap (\$M)	5,240	2,473
Median Mkt. Cap (\$M)	2,518	803
Price/Earnings ratio	20.35	19.12
Price/Book ratio	2.73	2.46
5 Yr. EPS Growth Rate (%)	11.51	11.16
Current Yield (%)	1.63	1.41
Number of Stocks	1,358	1,995

<b>Top Ten Equity Holdings</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Leidos Holdings Inc	0.36	0.00	0.36	14.41
Zebra Technologies Corp.	0.36	0.00	0.36	23.78
Atmos Energy Corp	0.35	0.00	0.35	-1.26
IDEX Corp	0.34	0.00	0.34	5.29
Steris Plc	0.34	0.00	0.34	5.75
Teledyne Technologies Inc.	0.33	0.00	0.33	7.62
Equity Lifestyle Properties Inc	0.32	0.00	0.32	5.84
Tyler Technologies Inc.	0.31	0.00	0.31	14.29
Allegion Plc	0.30	0.00	0.30	20.42
Teradyne Inc.	0.30	0.00	0.30	17.92
% of Portfolio	3.31	0.00	3.31	

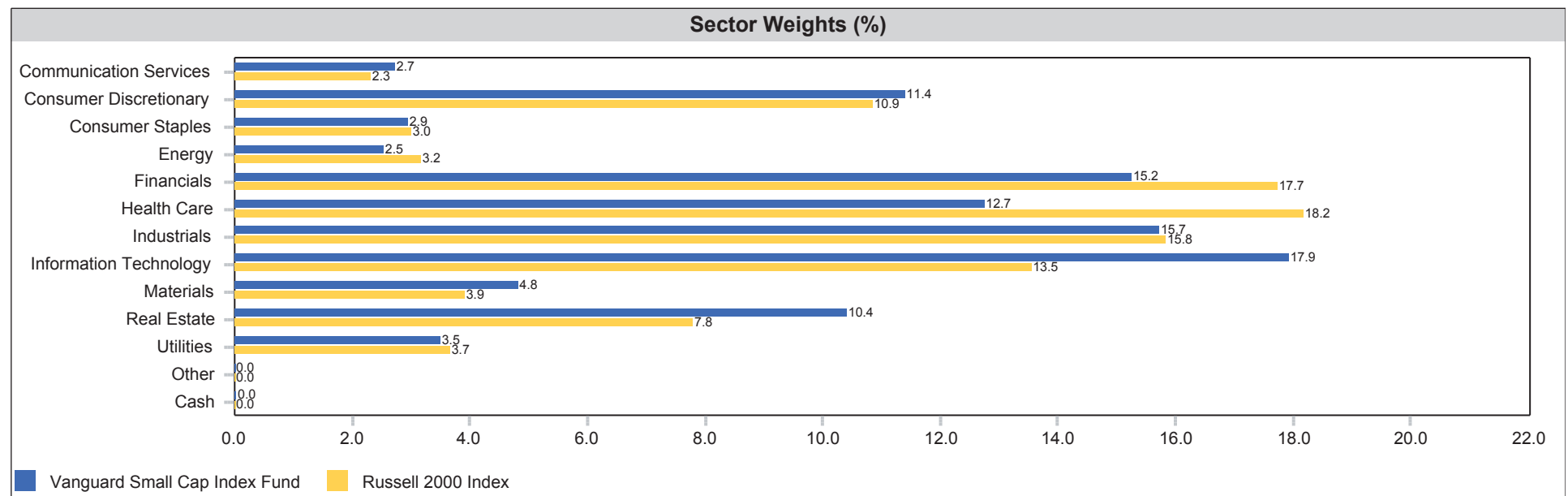
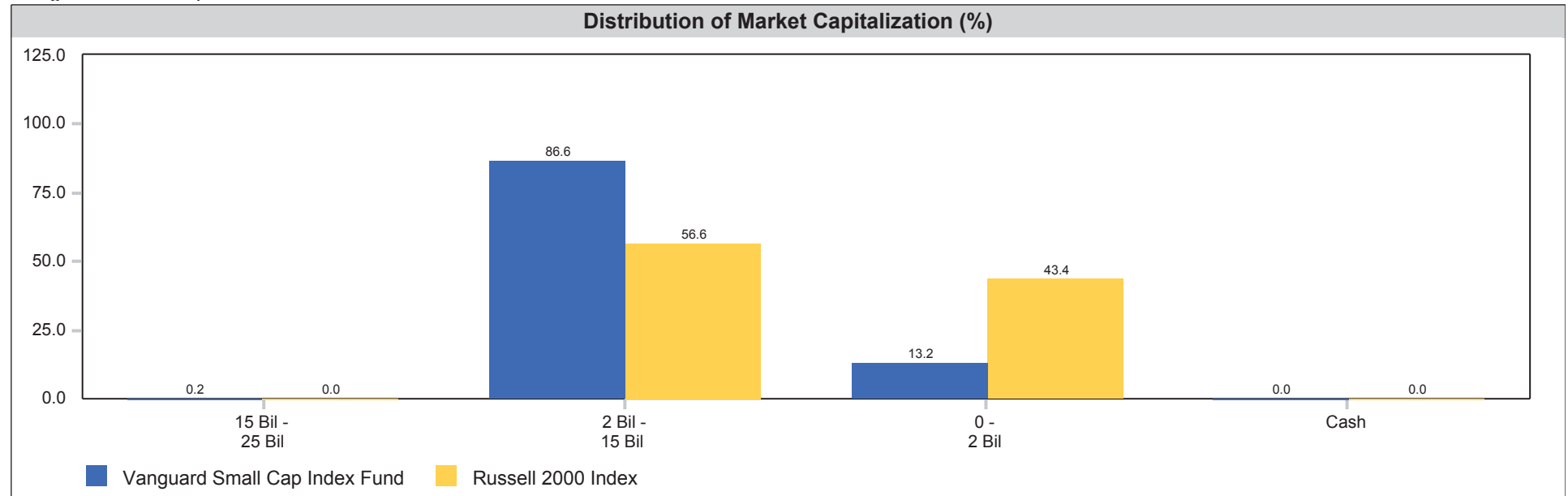
<b>Ten Best Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Kodiak Sciences Inc	0.02	0.08	-0.06	400.34
Intra-Cellular Therapies Inc	0.04	0.07	-0.03	359.31
Clovis Oncology Inc	0.01	0.02	-0.01	165.27
Reata Pharmaceuticals Inc	0.13	0.22	-0.09	154.62
Epizyme Inc	0.05	0.09	-0.04	138.49
Bloom Energy Corp	0.01	0.02	-0.01	129.85
Arrowhead Pharmaceuticals Inc	0.16	0.28	-0.12	125.09
Rite Aid Corp.	0.02	0.04	-0.02	122.59
Audentes Therapeutics Inc	0.03	0.13	-0.10	113.03
Surgery Partners Inc	0.00	0.02	-0.02	111.98
% of Portfolio	0.47	0.97	-0.50	

<b>Ten Worst Performers</b>				
	<b>Portfolio Weight (%)</b>	<b>Benchmark Weight (%)</b>	<b>Active Weight (%)</b>	<b>Quarterly Return (%)</b>
Spirit MTA REIT	0.00	0.00	0.00	-90.90
Unit Corp	0.00	0.00	0.00	-79.42
Intelsat SA	0.01	0.02	-0.01	-69.17
Contura Energy Inc	0.00	0.01	-0.01	-67.63
McDermott International Inc.	0.00	0.01	-0.01	-66.51
Akorn Inc	0.00	0.01	-0.01	-60.53
Party City Holdco Inc	0.00	0.01	-0.01	-59.02
Spectrum Pharmaceuticals Inc	0.01	0.02	-0.01	-56.12
Quad/Graphics Inc	0.00	0.01	-0.01	-53.97
FTS International Inc	0.00	0.00	0.00	-53.57
% of Portfolio	0.02	0.09	-0.07	





Vanguard Small Cap Index Fund vs. Russell 2000 Index



## Buy and Hold Sector Attribution

1 Quarter Ending December 31, 2019

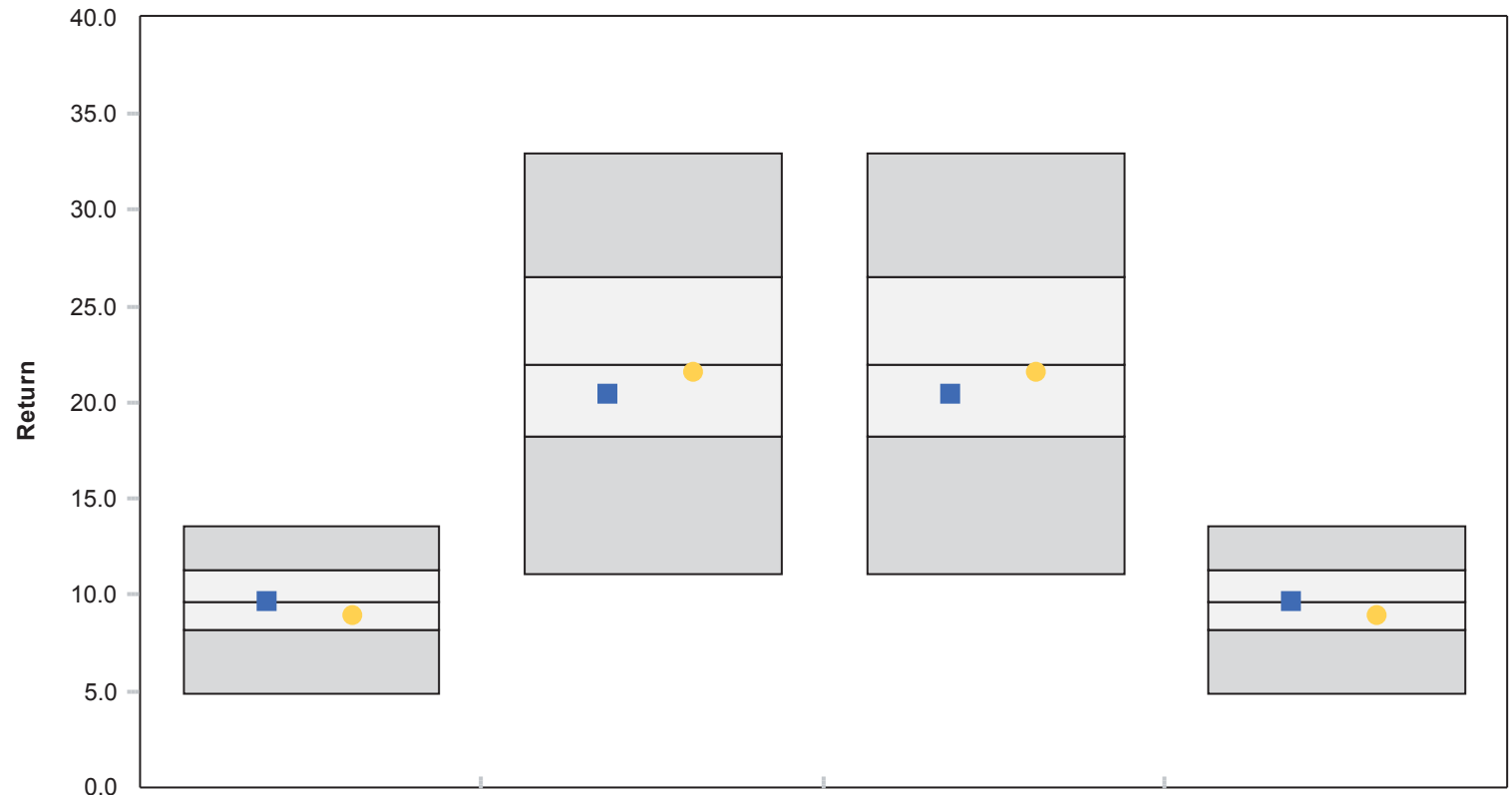
Vanguard Small Cap Index Fund vs. Russell 2000 Index

Buy-and-Hold Portfolio	7.84
Portfolio Trading	0.30
Actual Return	8.14
Benchmark Return	9.94
Actual Active Return	-1.80
Stock Selection	-1.52
Sector Selection	-0.70
Interaction	0.23
Total Selection	-1.99
Portfolio Trading	0.30
Benchmark Trading	0.11
Active Trading Impact	0.19
Buy & Hold Active Return	-1.80

	Allocation-10/01/2019		Performance-1 Quarter Ending December 31, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	2.72	2.44	6.14	5.15	0.02	-0.01	0.00	0.01
Consumer Discretionary	11.42	11.11	6.60	8.42	-0.20	0.00	-0.01	-0.21
Consumer Staples	2.80	3.02	5.14	7.03	-0.06	0.01	0.00	-0.05
Energy	2.43	3.31	7.89	7.39	0.02	0.02	0.00	0.03
Financials	15.22	18.23	6.60	7.21	-0.11	0.08	0.02	-0.01
Health Care	11.51	16.19	15.70	21.86	-1.00	-0.56	0.29	-1.27
Industrials	15.60	16.13	8.07	7.78	0.05	0.01	0.00	0.06
Information Technology	17.15	13.38	10.74	11.60	-0.11	0.07	-0.03	-0.08
Materials	4.63	3.83	8.52	11.47	-0.11	0.01	-0.02	-0.12
Real Estate	10.79	8.21	3.00	3.40	-0.03	-0.17	-0.01	-0.21
Utilities	3.63	4.13	-1.21	-1.62	0.02	0.06	0.00	0.07
Cash	2.11	0.00	0.00	0.00	0.00	-0.21	0.00	-0.21
Total	100.00	100.00	7.84	9.83	-1.52	-0.70	0.23	-1.99



IM International Equity (MF)



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

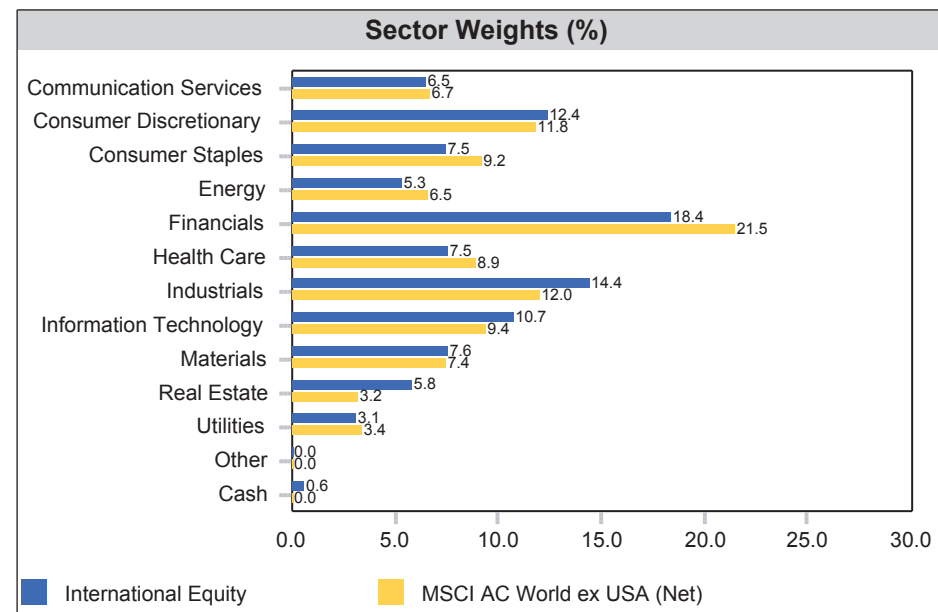
5th Percentile	13.55	32.92	32.92	13.55
1st Quartile	11.32	26.53	26.53	11.32
Median	9.60	21.99	21.99	9.60
3rd Quartile	8.16	18.28	18.28	8.16
95th Percentile	4.85	11.12	11.12	4.85
Population	3,183	3,103	3,103	3,183

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.  
Returns are net of fees and are expressed as percentages.  
4.29

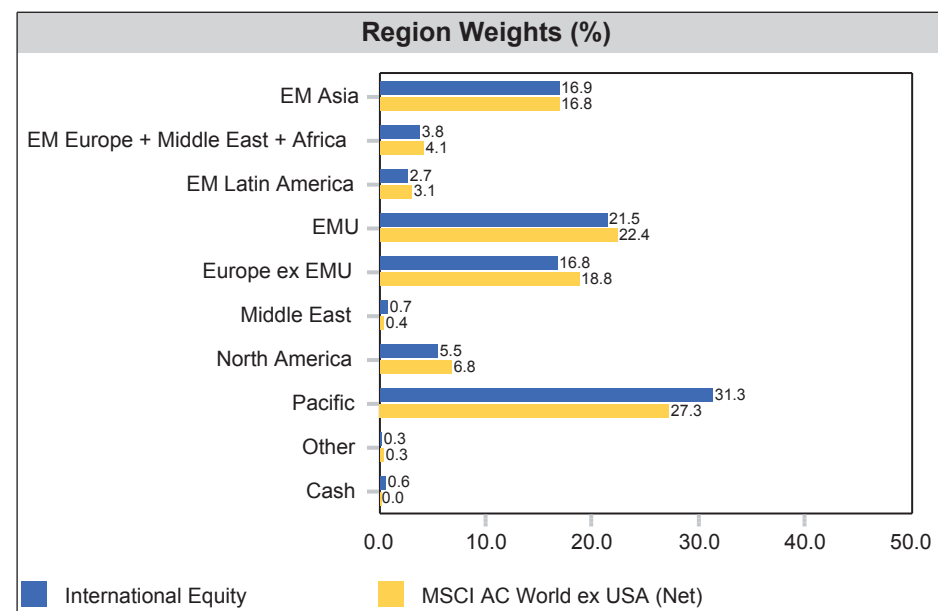


International Equity vs. MSCI AC World ex USA (Net)

Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	55,923	75,601
Median Mkt. Cap (\$M)	1,592	8,444
Price/Earnings ratio	15.83	16.14
Price/Book ratio	2.28	2.34
5 Yr. EPS Growth Rate (%)	8.85	8.14
Current Yield (%)	2.95	3.19
Number of Stocks	7,873	2,412



Top Ten Equity Holdings			
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)
Samsung Electronics Co Ltd	1.44	1.02	0.42
Alibaba Group Holding Ltd	1.38	1.59	-0.21
Tencent Holdings LTD	1.06	1.22	-0.16
Taiwan Semicon Manufctrng Co Ltd	1.04	1.21	-0.17
Nestle SA, Cham Und Vevey	0.96	1.42	-0.46
Roche Holding AG	0.69	1.01	-0.32
Novartis AG	0.62	0.90	-0.28
CASH	0.58	0.00	0.58
Toyota Motor Corp	0.54	0.72	-0.18
TOTAL SA	0.41	0.59	-0.18
% of Portfolio	8.72	9.68	-0.96



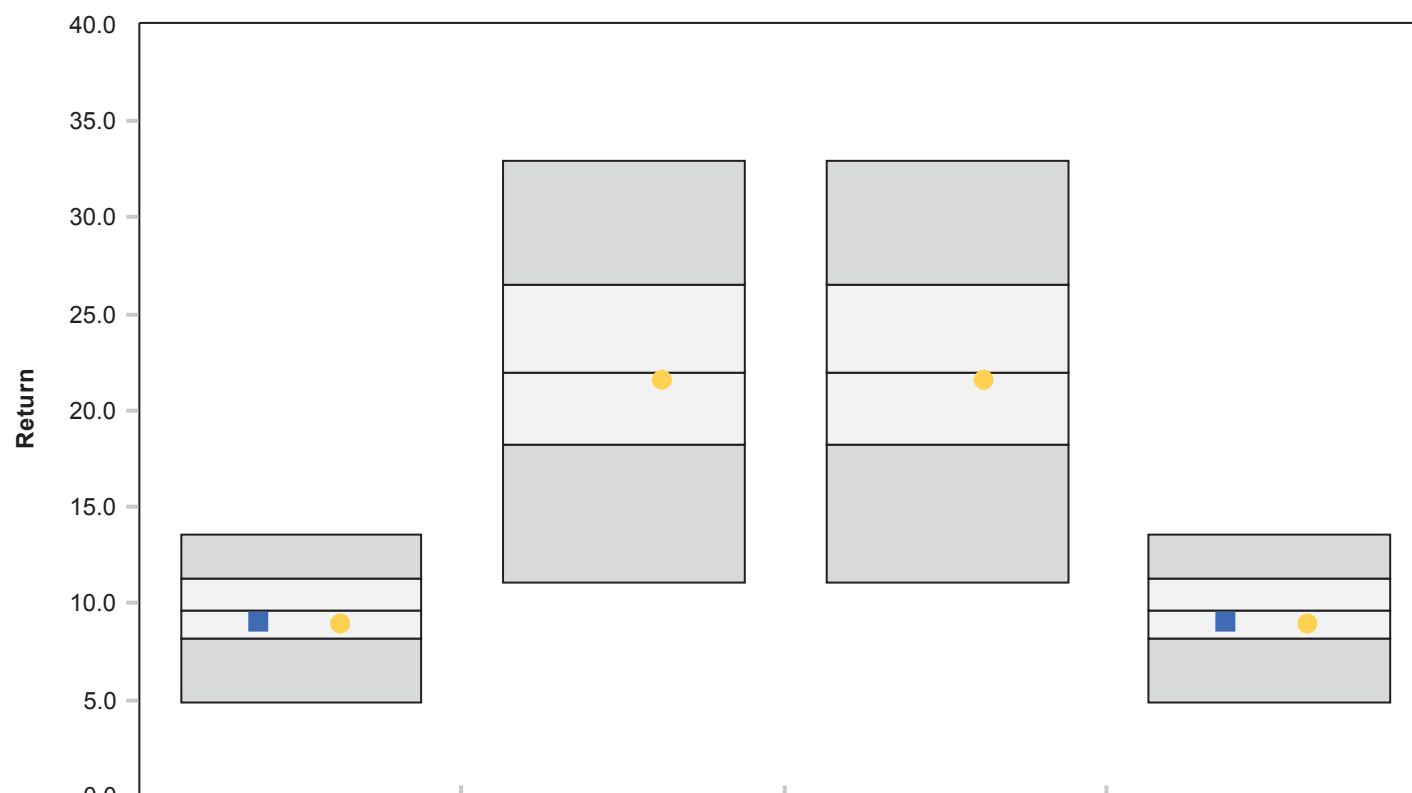
International Equity vs. MSCI AC World ex USA (Net)

Buy-and-Hold Portfolio	9.58
Portfolio Trading	0.11
Actual Return	9.68
Benchmark Return	8.92
Actual Active Return	0.76
Stock Selection	0.48
Sector Selection	0.03
Interaction	0.02
Total Selection	0.52
Portfolio Trading	0.11
Benchmark Trading	-0.13
Active Trading Impact	0.24
Buy & Hold Active Return	0.76

	Allocation-10/01/2019		Performance-1 Quarter Ending December 31, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	6.77	6.83	7.96	7.15	0.05	0.00	0.00	0.06
Consumer Discretionary	11.98	11.40	11.59	11.26	0.04	0.01	0.00	0.05
Consumer Staples	8.02	10.16	2.09	2.23	-0.01	0.15	0.00	0.14
Energy	5.38	6.75	7.71	6.81	0.06	0.03	-0.01	0.08
Financials	18.16	21.55	8.60	8.31	0.06	0.03	-0.01	0.08
Health Care	7.20	8.53	12.93	12.52	0.03	-0.05	-0.01	-0.02
Industrials	14.00	11.92	11.09	9.69	0.17	0.01	0.03	0.21
Information Technology	9.98	8.85	16.36	15.65	0.06	0.07	0.01	0.15
Materials	7.33	7.30	10.56	10.76	-0.01	0.00	0.00	-0.01
Real Estate	5.72	3.21	7.74	7.47	0.01	-0.04	0.01	-0.02
Utilities	3.20	3.50	5.37	4.89	0.02	0.01	0.00	0.03
Other	0.00	0.00	-3.18	0.00	0.00	0.00	0.00	0.00
Cash	2.27	0.00	0.00	0.00	0.00	-0.21	0.00	-0.21
Total	100.00	100.00	9.58	9.05	0.48	0.03	0.02	0.52



## IM International Equity (MF)



■ Vanguard Total Intl Stock Index Fund  
● MSCI AC World ex USA (Net)

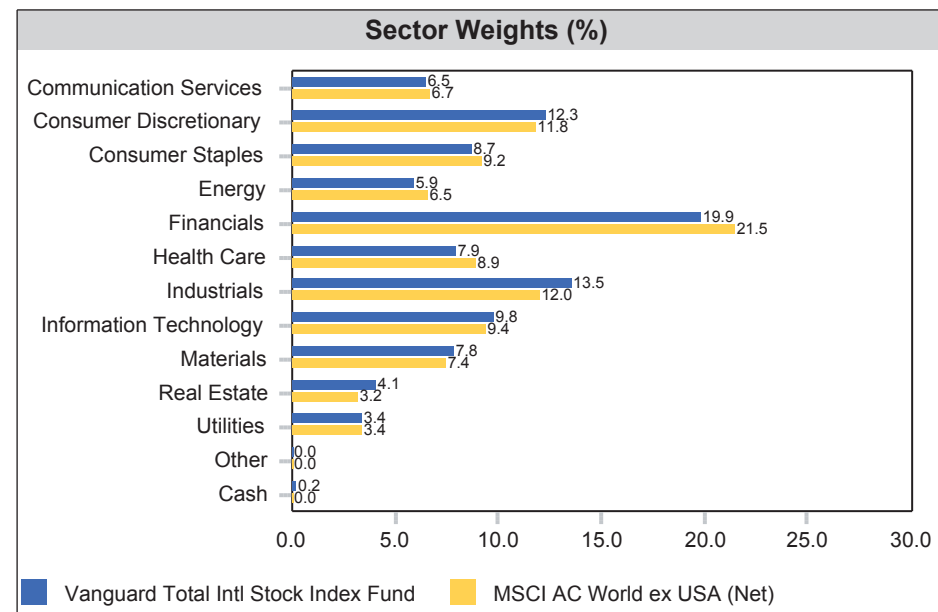
5th Percentile	13.55	32.92	32.92	13.55
1st Quartile	11.32	26.53	26.53	11.32
Median	9.60	21.99	21.99	9.60
3rd Quartile	8.16	18.28	18.28	8.16
95th Percentile	4.85	11.12	11.12	4.85
Population	3,183	3,103	3,103	3,183

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.  
Returns are net of fees and are expressed as percentages.  
4.32

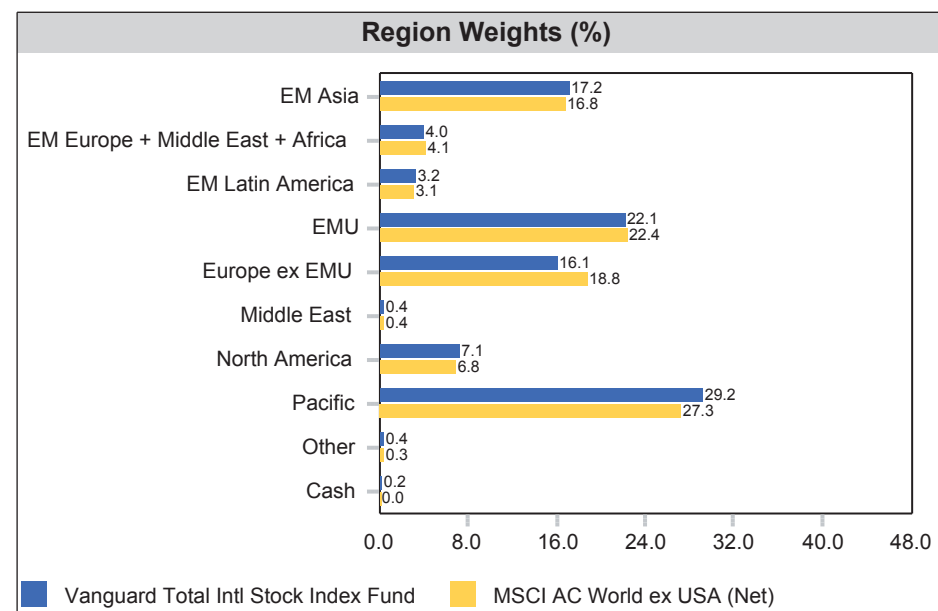


Vanguard Total Intl Stock Index Fund vs. MSCI AC World ex USA (Net)

Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	64,707	75,601
Median Mkt. Cap (\$M)	1,712	8,444
Price/Earnings ratio	15.88	16.14
Price/Book ratio	2.30	2.34
5 Yr. EPS Growth Rate (%)	8.52	8.14
Current Yield (%)	3.06	3.19
Number of Stocks	7,396	2,412



Top Ten Equity Holdings			
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)
Alibaba Group Holding Ltd	1.49	1.59	-0.10
Nestle SA, Cham Und Vevey	1.26	1.42	-0.16
Tencent Holdings LTD	1.11	1.22	-0.11
Taiwan Semicon Manufctrng Co Ltd	1.07	1.21	-0.14
Samsung Electronics Co Ltd	0.92	1.02	-0.10
Roche Holding AG	0.90	1.01	-0.11
Novartis AG	0.81	0.90	-0.09
Toyota Motor Corp	0.70	0.72	-0.02
TOTAL SA	0.54	0.59	-0.05
SAP SE	0.53	0.59	-0.06
% of Portfolio	9.33	10.27	-0.94



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

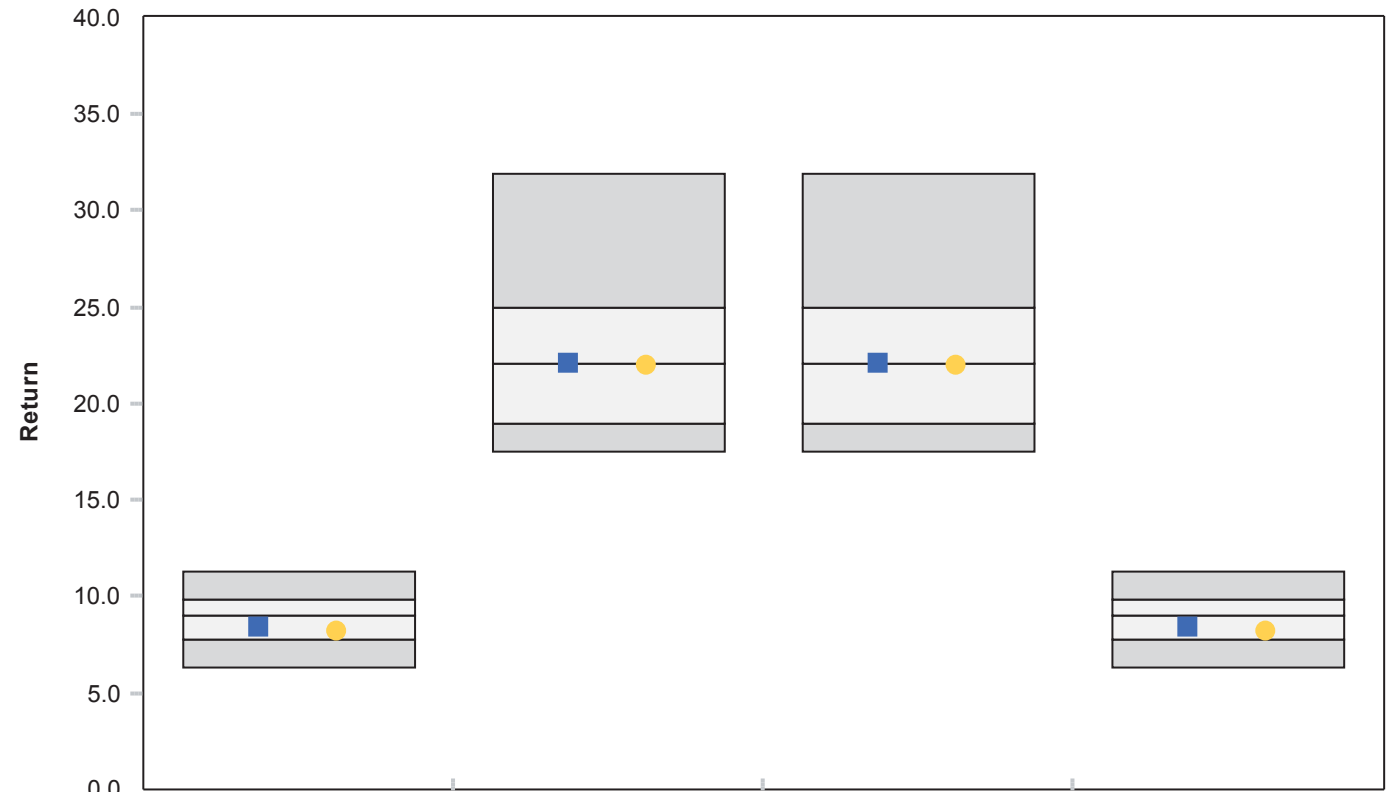
Buy-and-Hold Portfolio	8.93
Portfolio Trading	0.08
Actual Return	9.01
Benchmark Return	8.92
Actual Active Return	0.09
Stock Selection	0.03
Sector Selection	-0.17
Interaction	0.02
Total Selection	-0.13
Portfolio Trading	0.08
Benchmark Trading	-0.13
Active Trading Impact	0.21
Buy & Hold Active Return	0.09

	Allocation-10/01/2019		Performance-1 Quarter Ending December 31, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	6.55	6.83	7.41	7.15	0.02	0.01	0.00	0.02
Consumer Discretionary	11.71	11.40	11.08	11.26	-0.02	0.01	0.00	-0.01
Consumer Staples	8.54	10.16	1.51	2.23	-0.07	0.11	0.01	0.05
Energy	5.97	6.75	7.45	6.81	0.04	0.02	0.00	0.06
Financials	19.47	21.55	8.10	8.31	-0.04	0.02	0.00	-0.02
Health Care	7.52	8.53	12.72	12.52	0.02	-0.03	0.00	-0.02
Industrials	13.05	11.92	10.05	9.69	0.04	0.01	0.00	0.05
Information Technology	8.94	8.85	15.62	15.65	0.00	0.01	0.00	0.00
Materials	7.49	7.30	11.02	10.76	0.02	0.00	0.00	0.02
Real Estate	4.00	3.21	8.09	7.47	0.02	-0.01	0.00	0.01
Utilities	3.47	3.50	5.16	4.89	0.01	0.00	0.00	0.01
Other	0.03	0.00	-3.18	0.00	0.00	0.00	0.00	0.00
Cash	3.25	0.00	0.00	0.00	0.00	-0.29	0.00	-0.29
Total	100.00	100.00	8.93	9.05	0.03	-0.17	0.02	-0.13





IM International Large Cap Core Equity (MF)



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

5th Percentile	11.33	31.90	31.90	11.33
1st Quartile	9.84	24.98	24.98	9.84
Median	9.05	22.06	22.06	9.05
3rd Quartile	7.75	19.01	19.01	7.75
95th Percentile	6.34	17.47	17.47	6.34

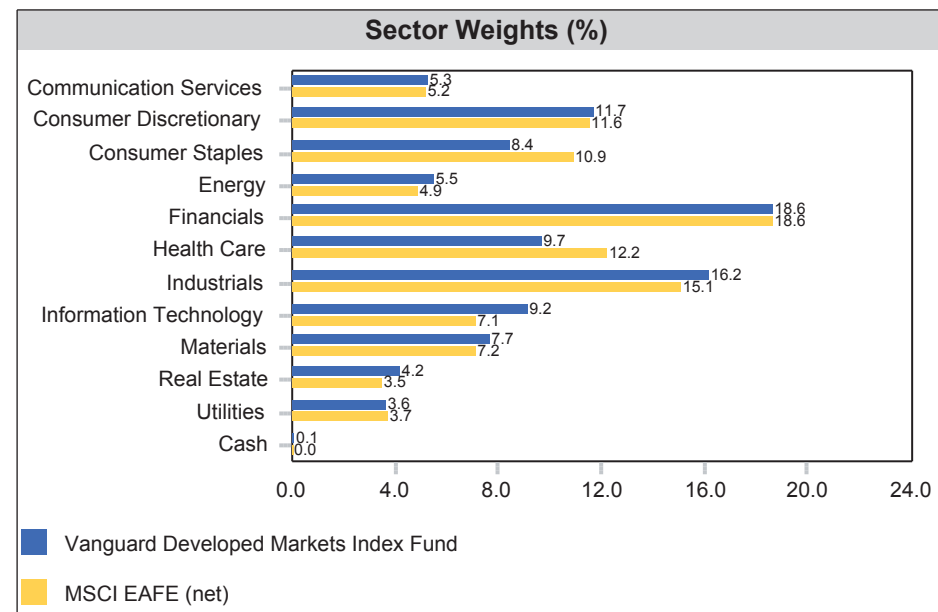
Population	96	93	93	96
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Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.  
Returns are net of fees and are expressed as percentages.  
4.35

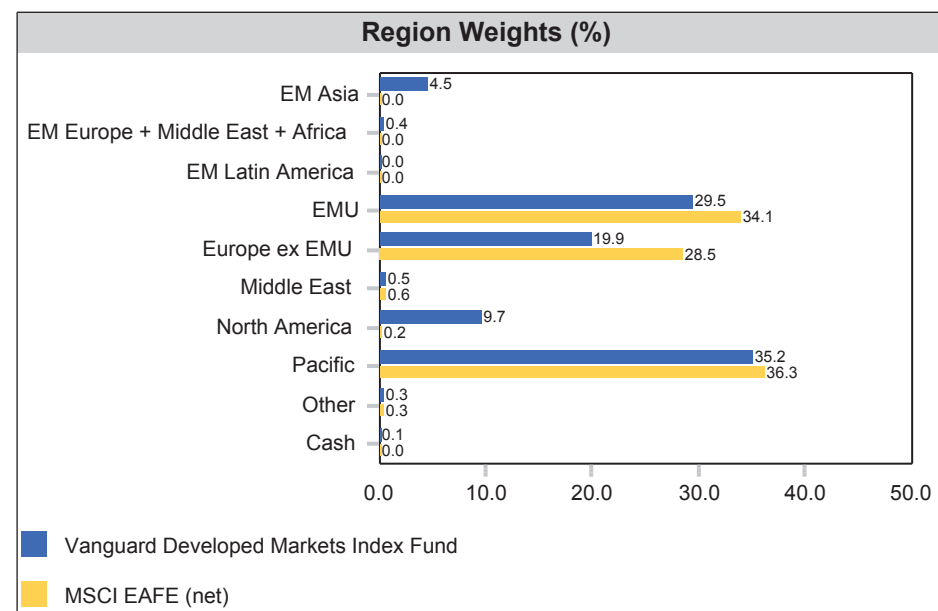


Vanguard Developed Markets Index Fund vs. MSCI EAFE (net)

Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	54,996	66,590
Median Mkt. Cap (\$M)	1,746	11,162
Price/Earnings ratio	16.48	17.24
Price/Book ratio	2.22	2.34
5 Yr. EPS Growth Rate (%)	6.86	6.00
Current Yield (%)	3.10	3.38
Number of Stocks	3,947	918



Top Ten Equity Holdings			
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)
Nestle SA, Cham Und Vevey	1.71	2.17	-0.46
Roche Holding AG	1.23	1.53	-0.30
Samsung Electronics Co Ltd	1.16	0.00	1.16
Novartis AG	1.10	1.37	-0.27
Toyota Motor Corp	0.96	1.09	-0.13
TOTAL SA	0.73	0.89	-0.16
SAP SE	0.72	0.89	-0.17
AIA Group Ltd	0.70	0.85	-0.15
Royal Dutch Shell PLC	0.68	0.85	-0.17
ASML Holding NV	0.65	0.85	-0.20
% of Portfolio	9.64	10.49	-0.85



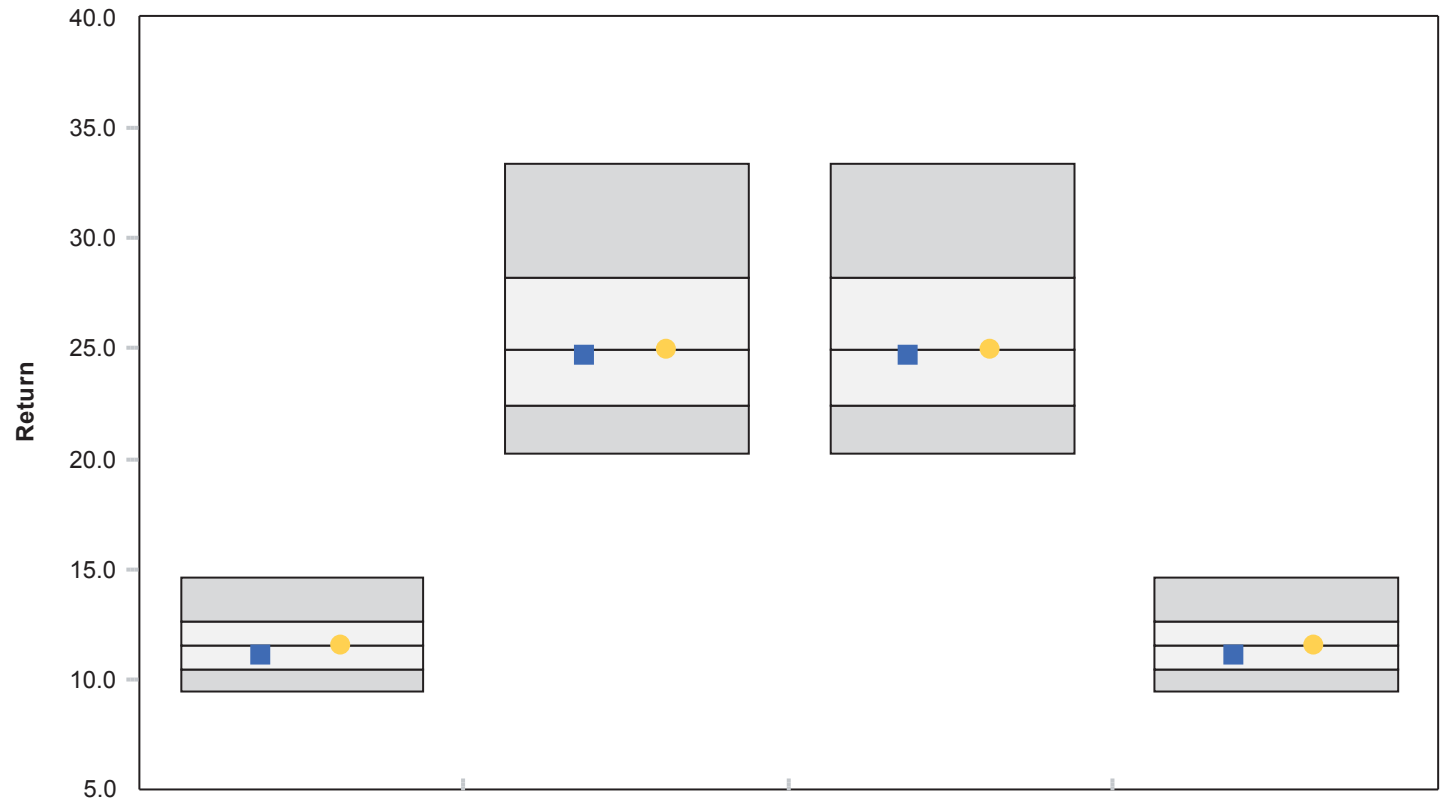
Vanguard Developed Markets Index Fund vs. MSCI EAFE (net)

Buy-and-Hold Portfolio	8.21
Portfolio Trading	0.15
Actual Return	8.36
Benchmark Return	8.17
Actual Active Return	0.19
Stock Selection	-0.01
Sector Selection	-0.10
Interaction	0.07
Total Selection	-0.04
Portfolio Trading	0.15
Benchmark Trading	-0.08
Active Trading Impact	0.23
Buy & Hold Active Return	0.19

	Allocation-10/01/2019		Performance-1 Quarter Ending December 31, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	5.32	5.37	6.14	4.90	0.07	0.00	0.00	0.07
Consumer Discretionary	11.40	11.50	8.89	9.29	-0.05	0.00	0.00	-0.05
Consumer Staples	9.12	12.01	1.00	2.20	-0.14	0.17	0.03	0.07
Energy	5.48	5.13	6.18	3.97	0.11	-0.01	0.01	0.11
Financials	18.23	18.50	7.26	8.47	-0.22	0.00	0.00	-0.22
Health Care	9.00	11.60	12.84	12.45	0.05	-0.11	-0.01	-0.07
Industrials	15.37	14.74	10.37	10.06	0.05	0.01	0.00	0.06
Information Technology	8.31	6.75	14.45	12.64	0.12	0.07	0.03	0.22
Materials	7.30	7.00	10.18	10.56	-0.03	0.01	0.00	-0.02
Real Estate	4.11	3.60	6.05	4.45	0.06	-0.02	0.01	0.05
Utilities	3.60	3.80	4.85	5.30	-0.02	0.01	0.00	-0.01
Cash	2.76	0.00	0.00	0.00	0.00	-0.23	0.00	-0.23
Total	100.00	100.00	8.21	8.25	-0.01	-0.10	0.07	-0.04



IM International Small Cap Core Equity (SA+CF)



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

5th Percentile	14.58	33.40	33.40	14.58
1st Quartile	12.62	28.20	28.20	12.62
Median	11.53	24.96	24.96	11.53
3rd Quartile	10.48	22.37	22.37	10.48
95th Percentile	9.45	20.24	20.24	9.45

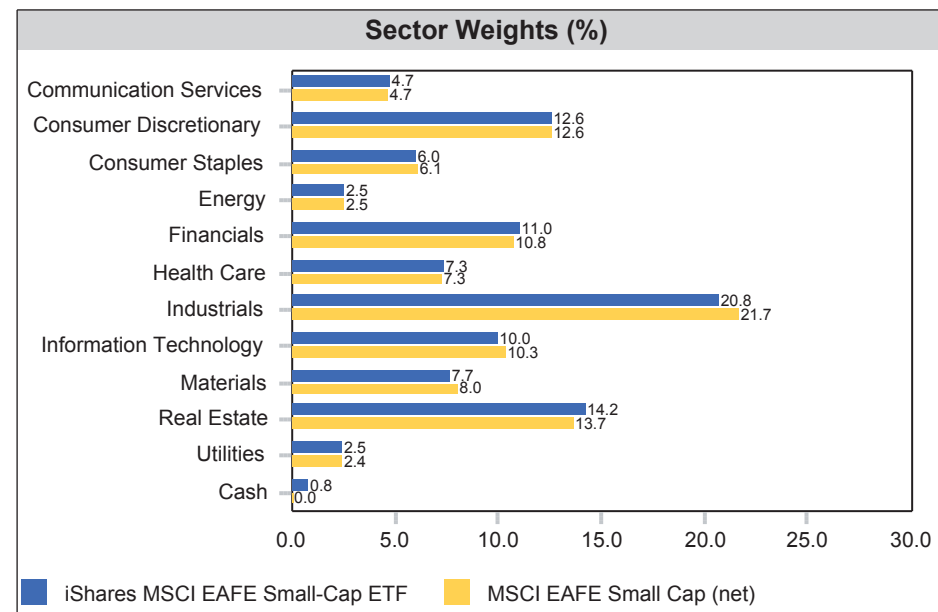
Population	45	45	45	45
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Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.  
Returns are net of fees and are expressed as percentages.

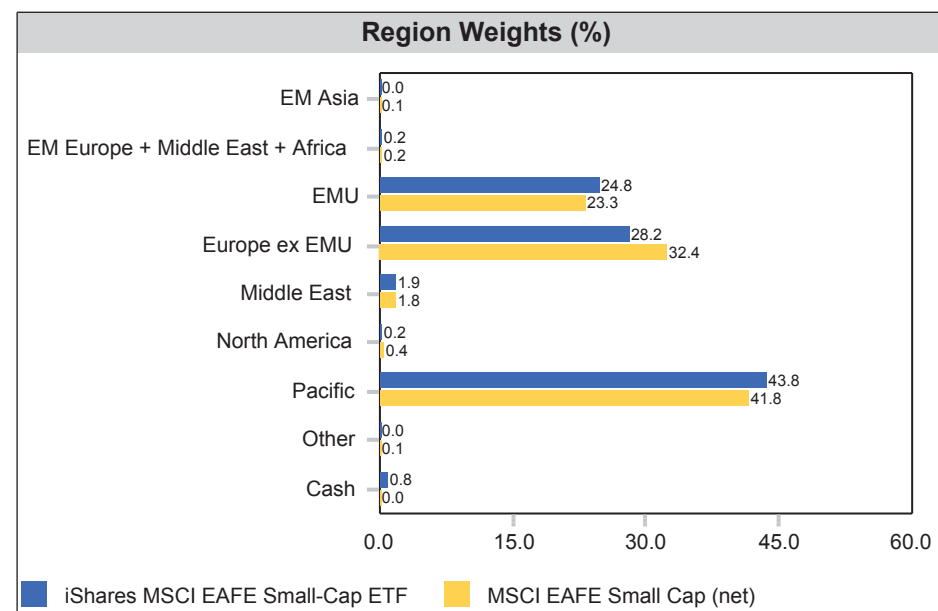


iShares MSCI EAFE Small-Cap ETF vs. MSCI EAFE Small Cap (net)

Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	2,785	2,823
Median Mkt. Cap (\$M)	1,102	1,118
Price/Earnings ratio	15.87	16.18
Price/Book ratio	2.24	2.23
5 Yr. EPS Growth Rate (%)	9.77	9.33
Current Yield (%)	2.74	2.74
Number of Stocks	2,356	2,346



Top Ten Equity Holdings			
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)
Warehouses De Pauw Sca Wdp, Meise	0.79	0.13	0.66
CASH	0.79	0.00	0.79
Rightmove PLC	0.33	0.29	0.04
Logitech International SA, Apples	0.32	0.31	0.01
LEG Immobilien AG	0.31	0.29	0.02
Scout24 AG	0.29	0.28	0.01
arGEN-X SE	0.28	0.27	0.01
Just Eat plc	0.28	0.27	0.01
Intermediate Capital Group PLC	0.27	0.24	0.03
InterXion Holding NV	0.26	0.25	0.01
% of Portfolio	3.92	2.33	1.59



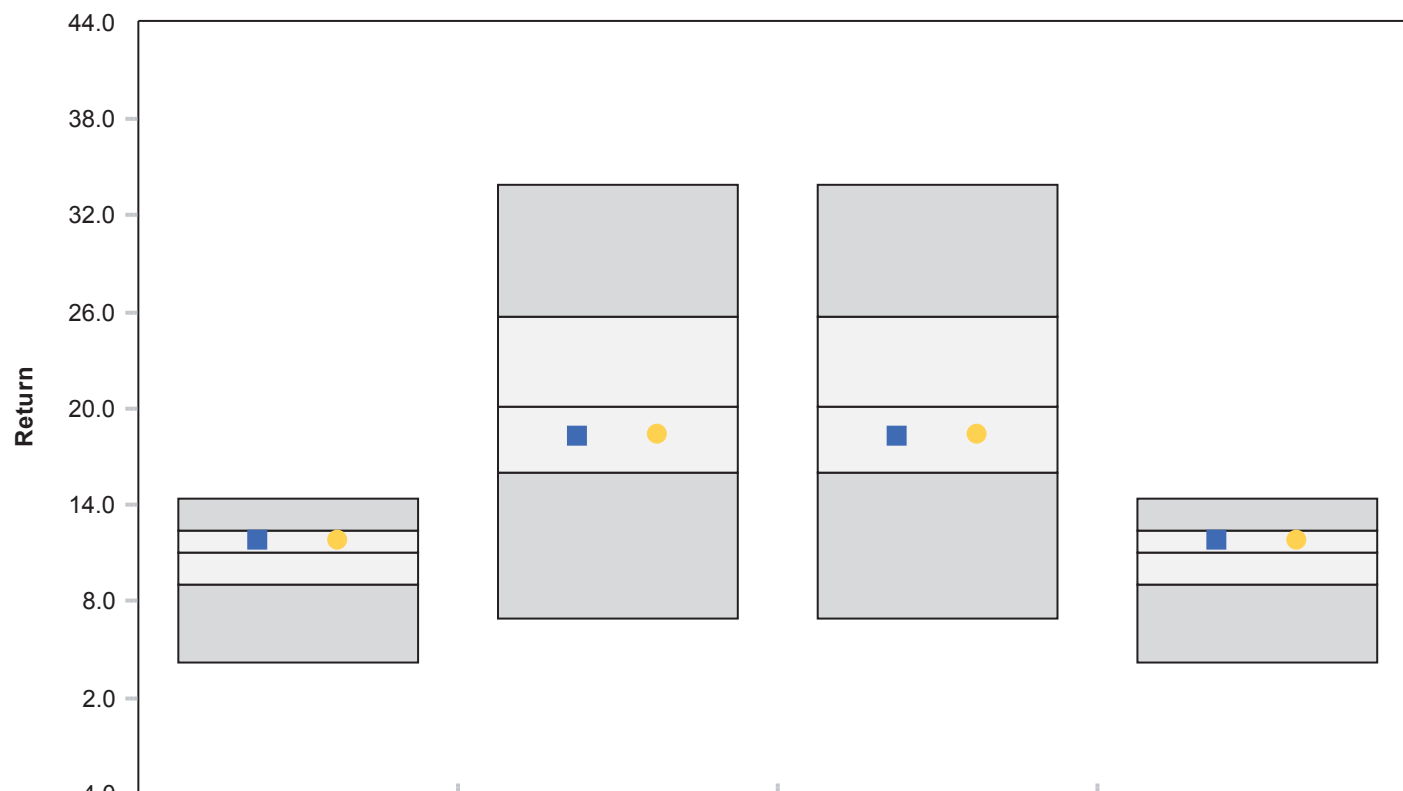
iShares MSCI EAFE Small-Cap ETF vs. MSCI EAFE Small Cap (net)

Buy-and-Hold Portfolio	10.81
Portfolio Trading	0.24
Actual Return	11.05
Benchmark Return	11.52
Actual Active Return	-0.47
Stock Selection	-0.57
Sector Selection	-0.09
Interaction	0.00
Total Selection	-0.65
Portfolio Trading	0.24
Benchmark Trading	0.05
Active Trading Impact	0.19
Buy & Hold Active Return	-0.47

	Allocation-10/01/2019		Performance-1 Quarter Ending December 31, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	5.56	5.30	7.82	8.26	-0.02	-0.01	0.00	-0.03
Consumer Discretionary	12.70	12.68	12.37	12.69	-0.04	0.00	0.00	-0.04
Consumer Staples	6.33	6.43	4.84	6.01	-0.08	0.01	0.00	-0.07
Energy	2.45	2.54	9.98	5.29	0.12	0.01	0.00	0.12
Financials	10.72	10.48	10.79	11.38	-0.06	0.00	0.00	-0.06
Health Care	7.50	7.35	12.98	13.78	-0.06	0.00	0.00	-0.06
Industrials	20.47	21.01	13.61	14.45	-0.17	-0.02	0.00	-0.19
Information Technology	9.59	9.75	15.79	15.80	0.00	-0.01	0.00	-0.01
Materials	7.49	7.84	9.37	10.84	-0.12	0.00	0.01	-0.11
Real Estate	13.90	14.12	6.66	7.63	-0.14	0.01	0.00	-0.13
Utilities	2.62	2.50	7.70	7.76	0.00	0.00	0.00	-0.01
Cash	0.69	0.00	0.00	0.00	0.00	-0.08	0.00	-0.08
Total	100.00	100.00	10.81	11.47	-0.57	-0.09	0.00	-0.65



## IM Emerging Markets Equity (SA+CF+MF)



■ Fidelity Emerging Markets Index Fund

● MSCI EM (net)

5th Percentile

1st Quartile

Median

3rd Quartile

95th Percentile

Population

**Current  
Quarter**

11.82 (35)

11.84 (35)

14.37

12.38

11.08

9.08

4.16

1,288

**2019**

18.26 (63)

18.44 (61)

33.97

25.69

20.15

16.06

6.92

1,268

**Trailing  
12-months**

18.26 (63)

18.44 (61)

33.97

25.69

20.15

16.06

6.92

1,268

**Fiscal Year  
To Date**

11.82 (35)

11.84 (35)

14.37

12.38

11.08

9.08

4.16

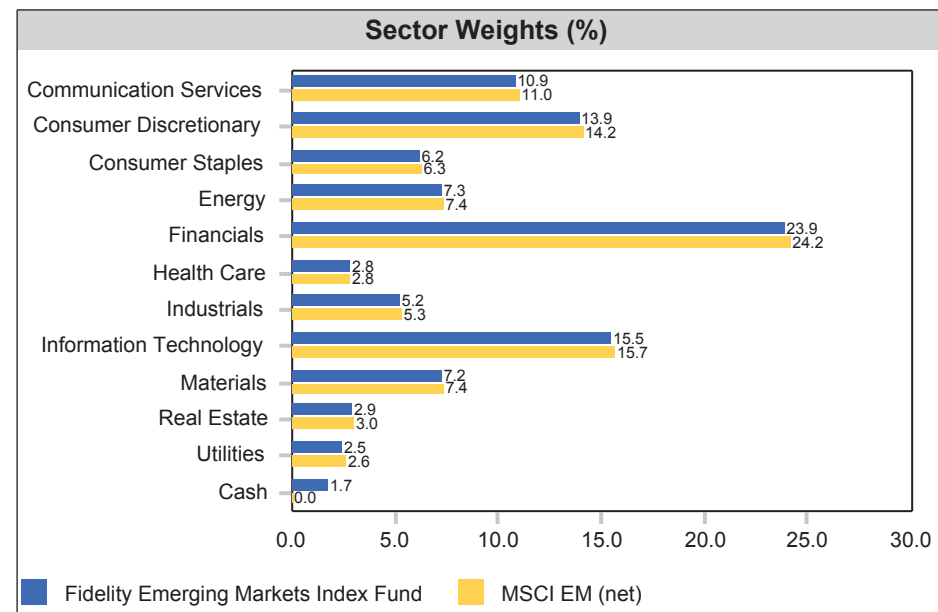
1,288

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

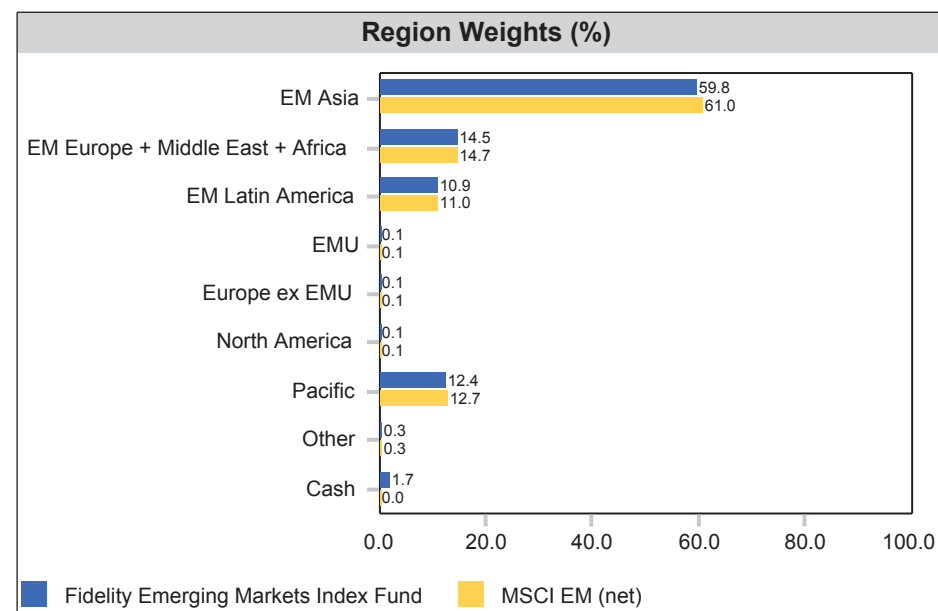


Fidelity Emerging Markets Index Fund vs. MSCI EM (net)

Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	101,747	104,152
Median Mkt. Cap (\$M)	5,716	5,792
Price/Earnings ratio	14.42	14.34
Price/Book ratio	2.47	2.47
5 Yr. EPS Growth Rate (%)	12.96	13.04
Current Yield (%)	2.77	2.76
Number of Stocks	1,424	1,404



Top Ten Equity Holdings			
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)
Alibaba Group Holding Ltd	5.68	5.76	-0.08
Tencent Holdings LTD	4.37	4.44	-0.07
Taiwan Semicon Manufctrng Co Ltd	4.31	4.38	-0.07
Samsung Electronics Co Ltd	3.65	3.71	-0.06
CASH	1.73	0.00	1.73
China Construction Bank Corp	1.30	1.33	-0.03
Naspers Ltd	1.14	1.15	-0.01
Ping An Insurance Group	1.08	1.06	0.02
Reliance Industries Ltd	0.96	0.97	-0.01
Housing Development Finance Corp	0.88	0.89	-0.01
% of Portfolio	25.10	23.69	1.41





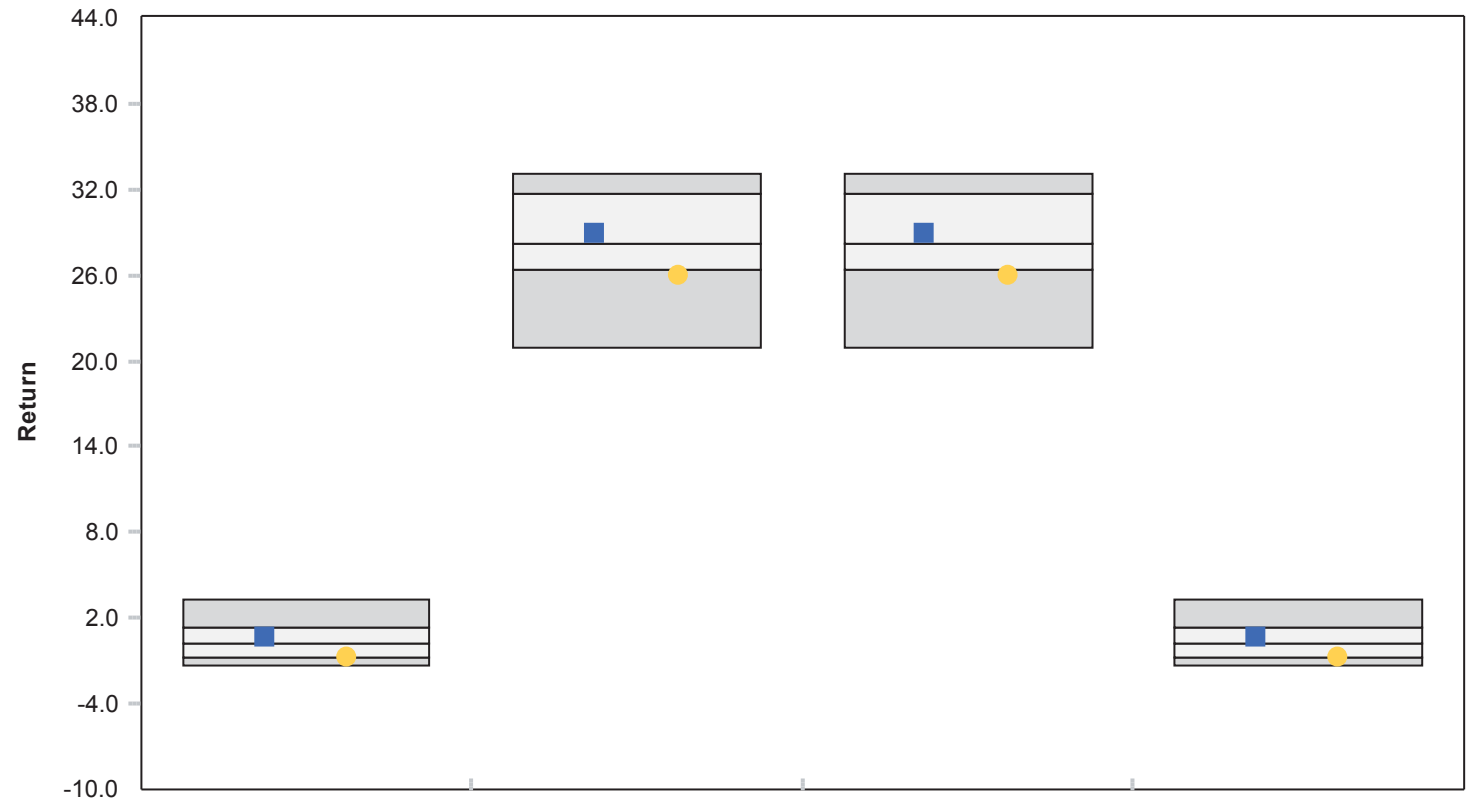
Fidelity Emerging Markets Index Fund vs. MSCI EM (net)

Buy-and-Hold Portfolio	11.92
Portfolio Trading	-0.10
Actual Return	11.82
Benchmark Return	11.84
Actual Active Return	-0.02
Stock Selection	0.00
Sector Selection	-0.25
Interaction	0.00
Total Selection	-0.25
Portfolio Trading	-0.10
Benchmark Trading	-0.33
Active Trading Impact	0.23
Buy & Hold Active Return	-0.02

	Allocation-10/01/2019		Performance-1 Quarter Ending December 31, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	11.35	11.57	10.16	10.06	0.01	0.00	0.00	0.02
Consumer Discretionary	12.81	13.06	16.66	16.74	-0.01	-0.01	0.00	-0.02
Consumer Staples	6.75	6.90	3.45	3.16	0.02	0.01	0.00	0.03
Energy	7.57	7.68	9.71	10.16	-0.03	0.00	0.00	-0.03
Financials	24.25	24.70	10.24	10.30	-0.01	0.01	0.00	0.00
Health Care	2.58	2.60	13.85	14.58	-0.02	0.00	0.00	-0.02
Industrials	5.27	5.39	8.14	7.92	0.01	0.01	0.00	0.02
Information Technology	14.77	15.07	19.43	19.41	0.00	-0.02	0.00	-0.02
Materials	7.17	7.34	12.37	12.39	0.00	0.00	0.00	0.00
Real Estate	2.71	2.86	18.54	17.80	0.02	-0.01	0.00	0.01
Utilities	2.67	2.82	4.99	4.57	0.01	0.01	0.00	0.02
Cash	2.09	0.00	0.00	0.00	0.00	-0.25	0.00	-0.25
Total	100.00	100.00	11.92	12.17	0.00	-0.25	0.00	-0.25



IM U.S. REIT (SA+CF)



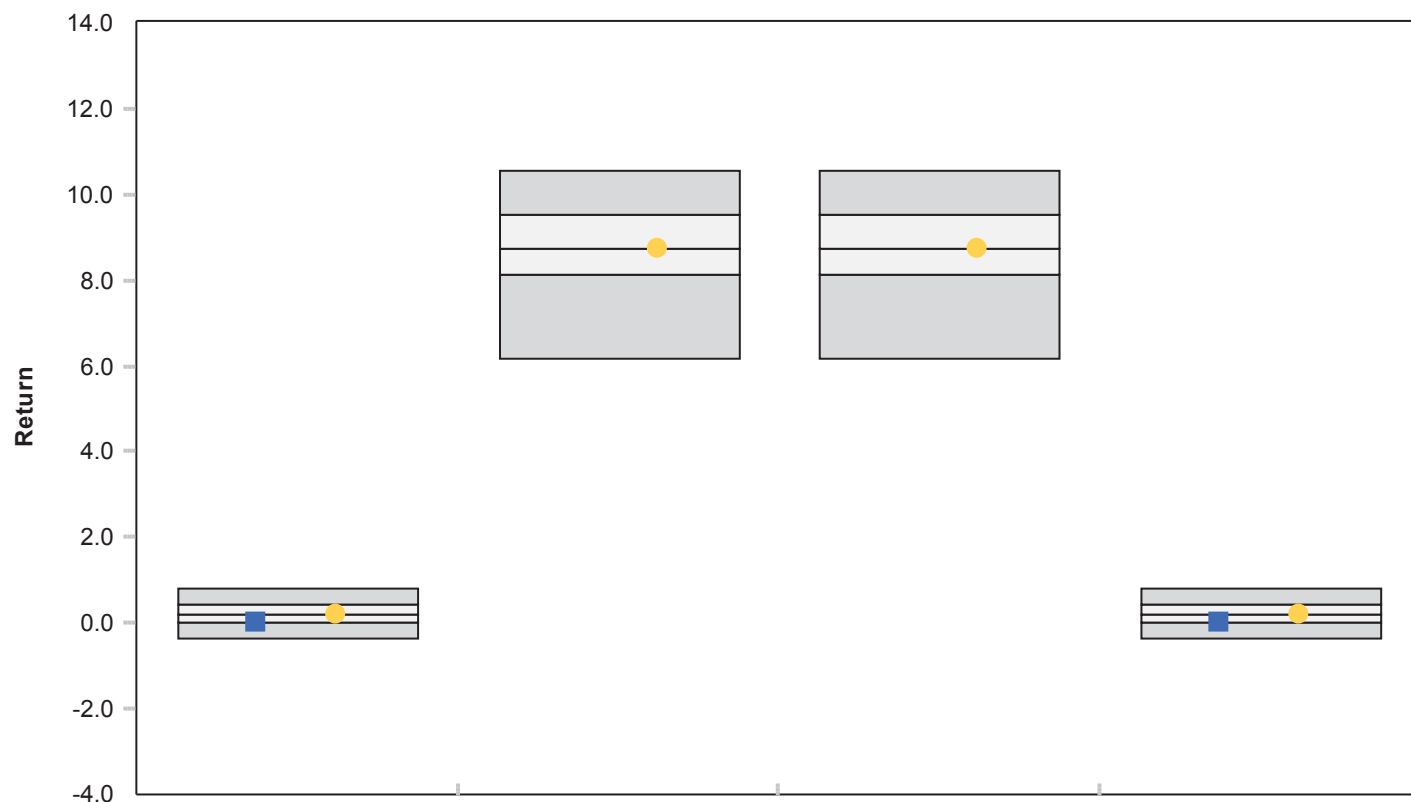
■ Vanguard Real Estate Index Fund  
● FTSE NAREIT Equity REIT Index

	Current Quarter	2019	Trailing 12-months	Fiscal Year To Date
	0.62 (40)	28.94 (42)	28.94 (42)	0.62 (40)
	-0.76 (77)	26.00 (77)	26.00 (77)	-0.76 (77)
5th Percentile	3.28	33.11	33.11	3.28
1st Quartile	1.28	31.66	31.66	1.28
Median	0.23	28.25	28.25	0.23
3rd Quartile	-0.73	26.39	26.39	-0.73
95th Percentile	-1.29	20.92	20.92	-1.29
Population	48	48	48	48

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.  
Returns are net of fees and are expressed as percentages.  
4.44



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



■ Vanguard Total Bond Mkt Index Fund

● Blmbg. Barc. U.S. Aggregate

5th Percentile

0.79

10.55

10.55

0.79

1st Quartile

0.41

9.54

9.54

0.41

Median

0.18

8.75

8.75

0.18

3rd Quartile

0.00

8.10

8.10

0.00

95th Percentile

-0.34

6.15

6.15

-0.34

Population

516

509

509

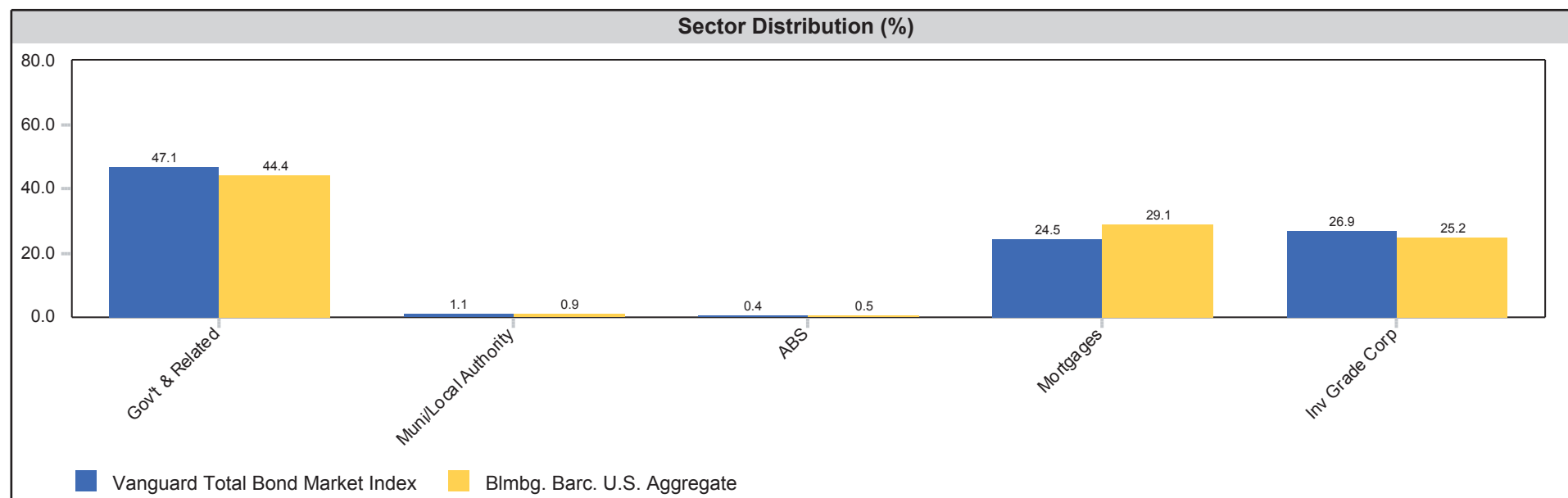
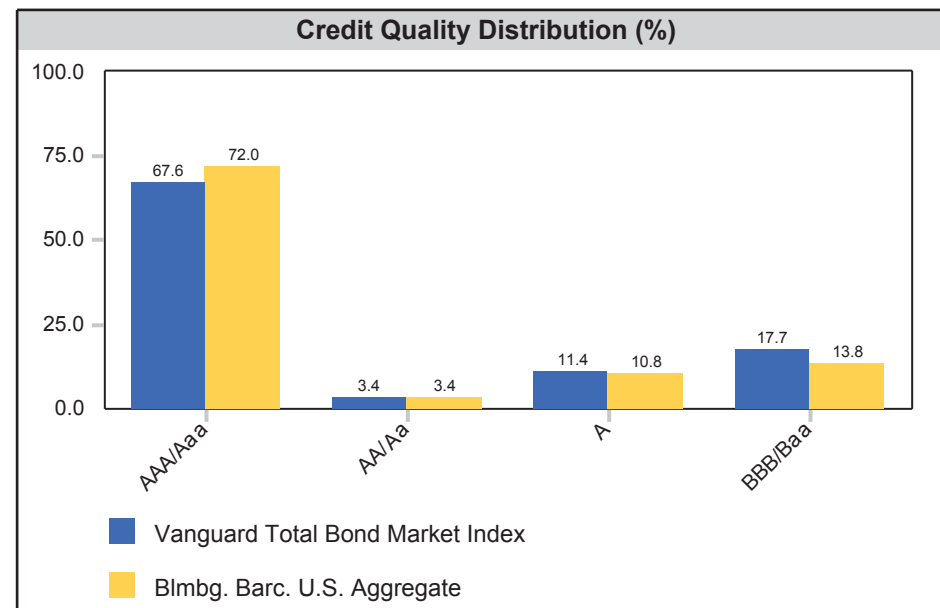
516

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

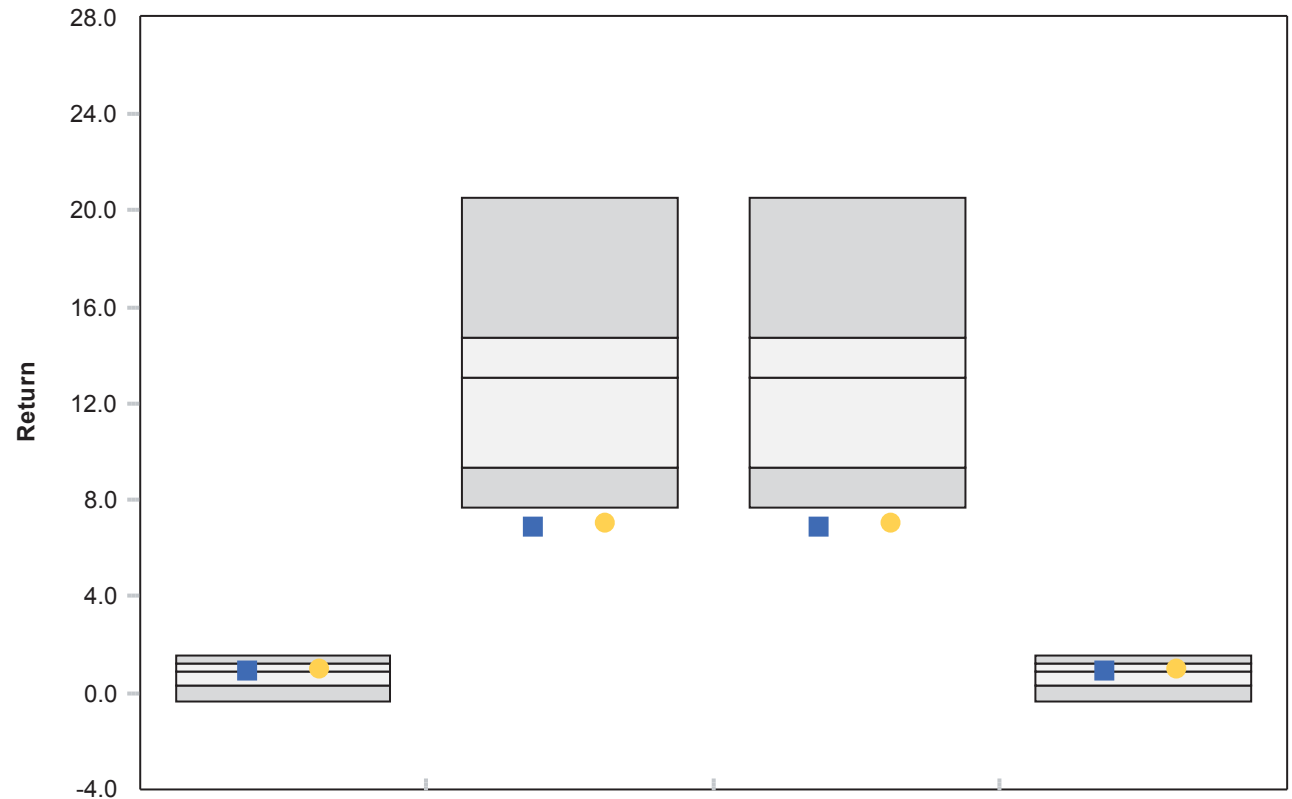


Vanguard Total Bond Market Index vs. Blmbg. Barc. U.S. Aggregate

Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	6.10	5.84
Yield To Maturity (%)	2.30	2.31
Avg. Maturity	8.30	8.06
Avg. Quality	AA	AA
Coupon Rate (%)	3.17	3.18



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

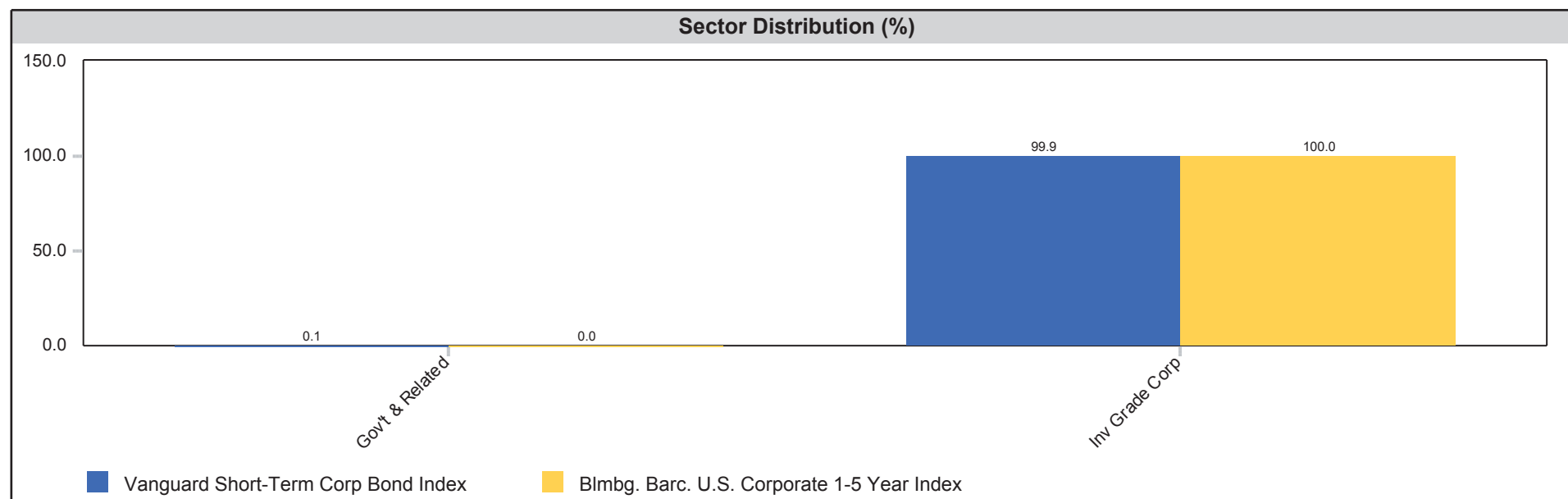
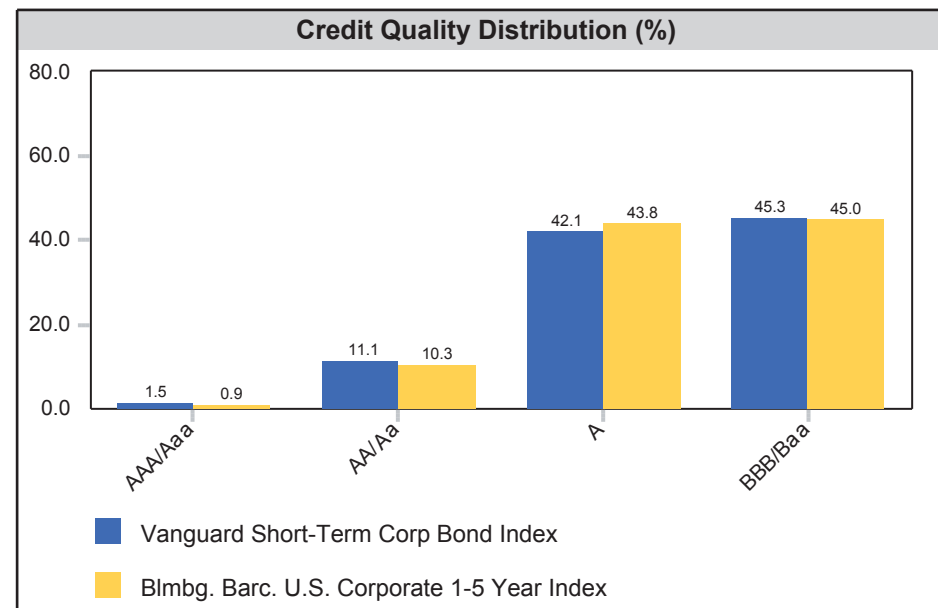
Current Quarter	2019	Trailing 12-months	Fiscal Year To Date
0.86 (52)	6.84 (99)	6.84 (99)	0.86 (52)
0.95 (45)	6.99 (99)	6.99 (99)	0.95 (45)
1.53	20.51	20.51	1.53
1.19	14.71	14.71	1.19
0.88	13.04	13.04	0.88
0.34	9.31	9.31	0.34
-0.38	7.65	7.65	-0.38
329	324	324	329

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

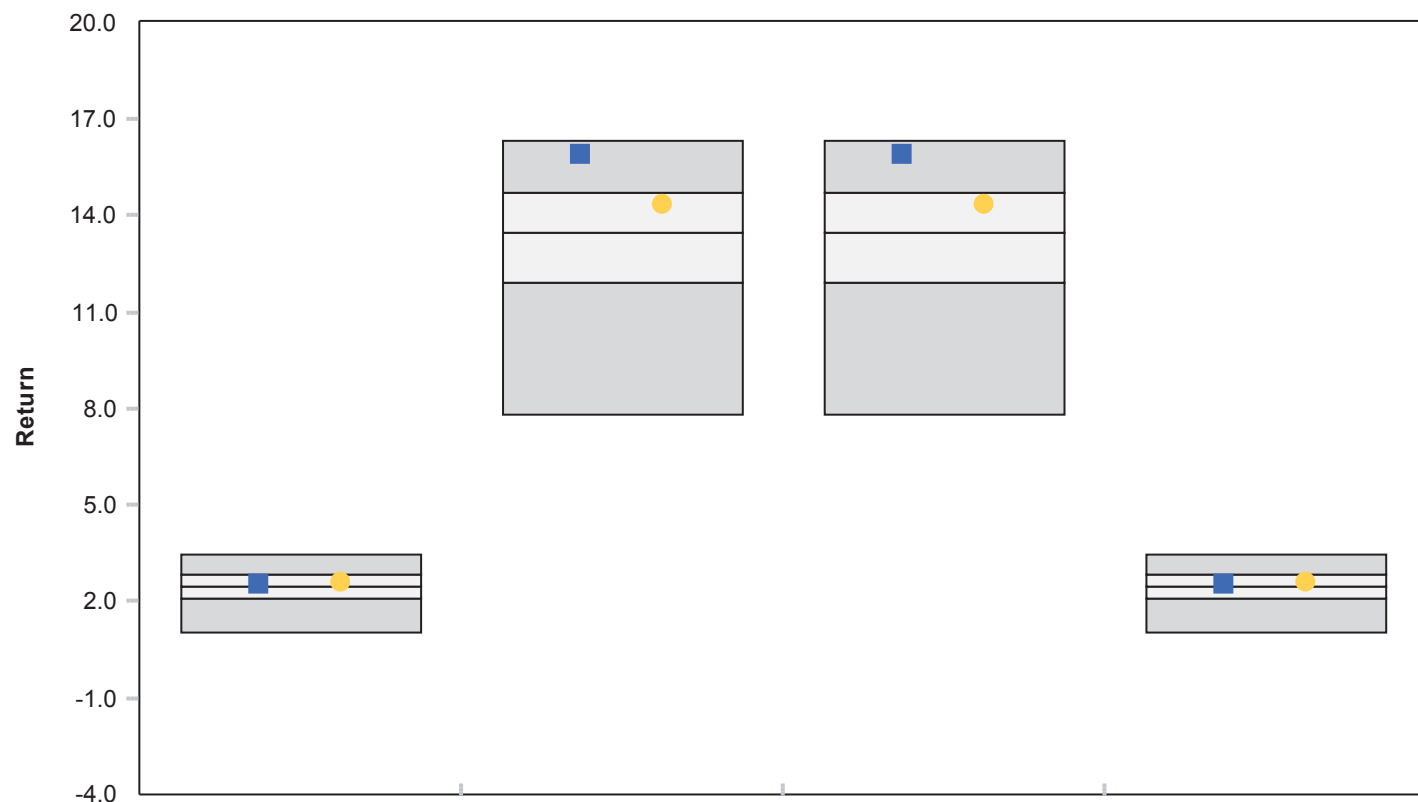


Vanguard Short-Term Corp Bond Index vs. Blmbg. Barc. U.S. Corporate 1-5 Year Index

Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	2.60	2.64
Yield To Maturity (%)	2.21	2.21
Avg. Maturity	2.90	2.89
Avg. Quality	A	A
Coupon Rate (%)	3.36	3.38



IM U.S. High Yield Bonds (MF)



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

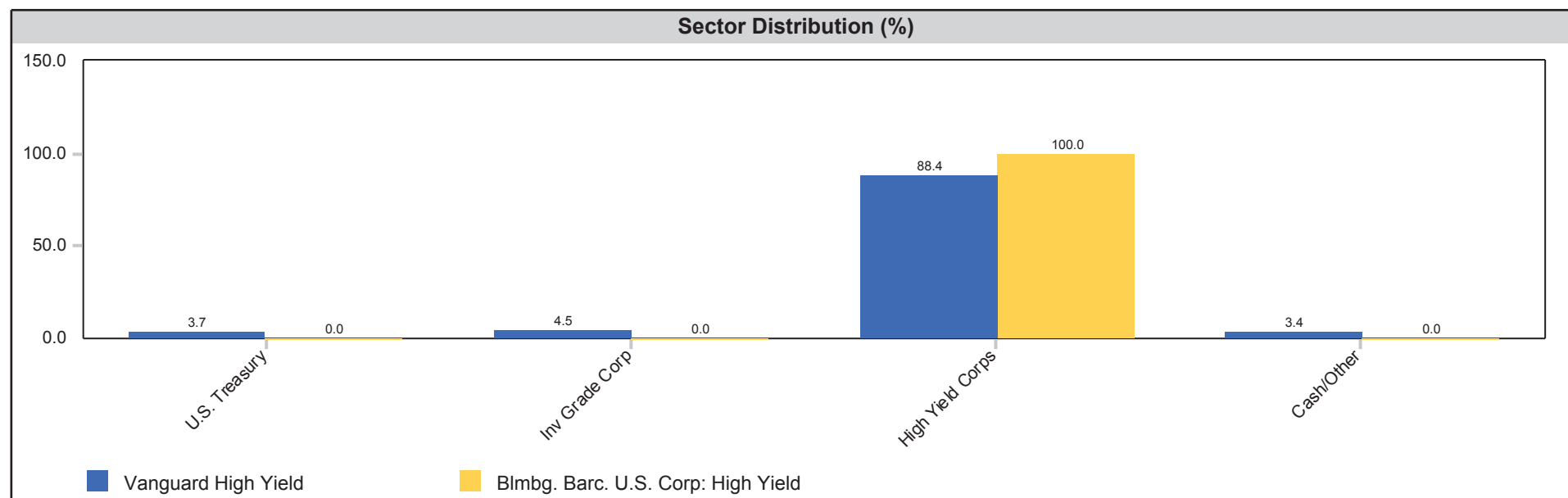
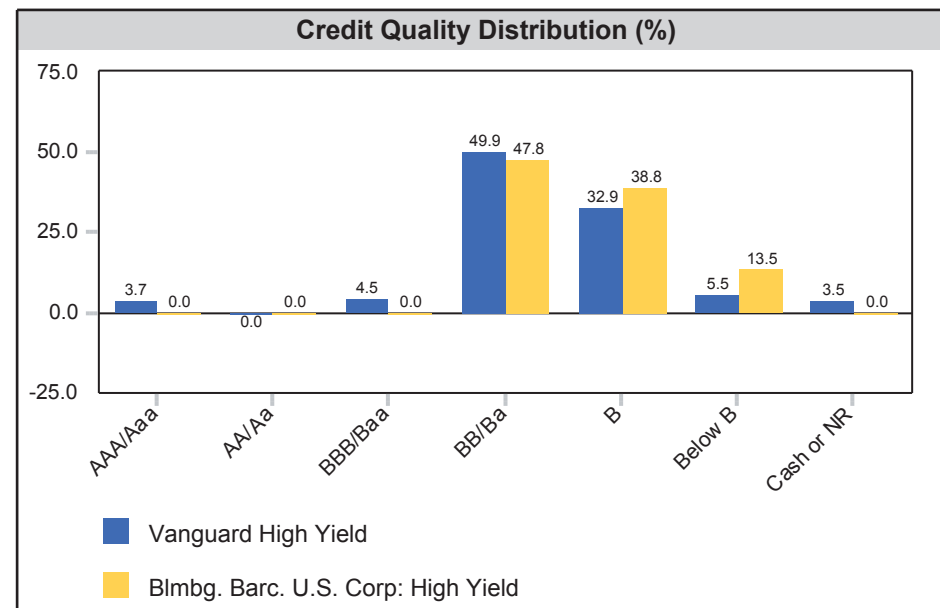
5th Percentile	3.48	16.32	16.32	3.48
1st Quartile	2.81	14.71	14.71	2.81
Median	2.46	13.50	13.50	2.46
3rd Quartile	2.12	11.91	11.91	2.12
95th Percentile	1.02	7.83	7.83	1.02
Population	690	684	684	690

Parentheses contain percentile rankings.  
 Calculation based on monthly periodicity.  
 Returns are net of fees and are expressed as percentages.  
 4.49



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

Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	2.80	3.05
Yield To Maturity (%)	4.72	5.99
Avg. Maturity	3.40	5.86
Avg. Quality	BB	B
Coupon Rate (%)	5.54	6.32





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