CollegeCounts Alabama's 529 Fund

Union Bank & Trust:

CollegeCounts Alabama's 529 Fund

December 2019

Wilshire

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Wilshire

I. Quarterly Market Commentary

Economic Highlights

GDP: Real GDP grew 2.1% on an annualized basis in the third quarter. Consumer spending, which was up 3% annualized for the quarter, was the main contributor to growth. Consumers have accounted for much of the economic growth throughout 2019. Private investment was down for the second straight quarter due to a decrease in nonresidential spending on structures and equipment. Government spending was up, contributing 0.3% to overall growth.
-Source: Dept. of Commerce (BEA)

Interest Rates: The short-term range of the Treasury yield curve fell during the quarter, while the intermediate to long-term portion rose. The net result removed the curve's previous inversion for a generally upward, although shallow, sloping curve. The 10-year Treasury was up 24 basis points during the quarter, finishing at 1.92%. The Federal Reserve cut the Fed funds rate during the quarter by 0.25%, the third cut this year. A nearly unanimous committee forecasts no additional rate changes until 2021.
-Source: US Treasury

Inflation: Consumer prices have increased during the past three months and are up modestly for the year. The Consumer Price Index was up 0.6% for the three months ending November and 2.0% for the one-year period. The 10-year breakeven inflation rate increased during the fourth quarter to 1.77% in December versus 1.53% in September.
-Source: Dept. of Labor (BLS), US Treasury

Employment: Jobs growth has strengthened during the second half of the year with total nonfarm employment increasing an average of 205,000 jobs per month during the three months ending November 2019. The unemployment rate has fallen this year to 3.5%, the lowest level in 50 years.
-Source: Dept. of Labor (BLS)

Housing: Home prices continued to move higher during 2019, with the S&P CoreLogic Case-Shiller 20-city Home Price Index up 1.0% for the three months ending October 2019. During the past 12 months, the Index is up 2.2%.-Source: S&P

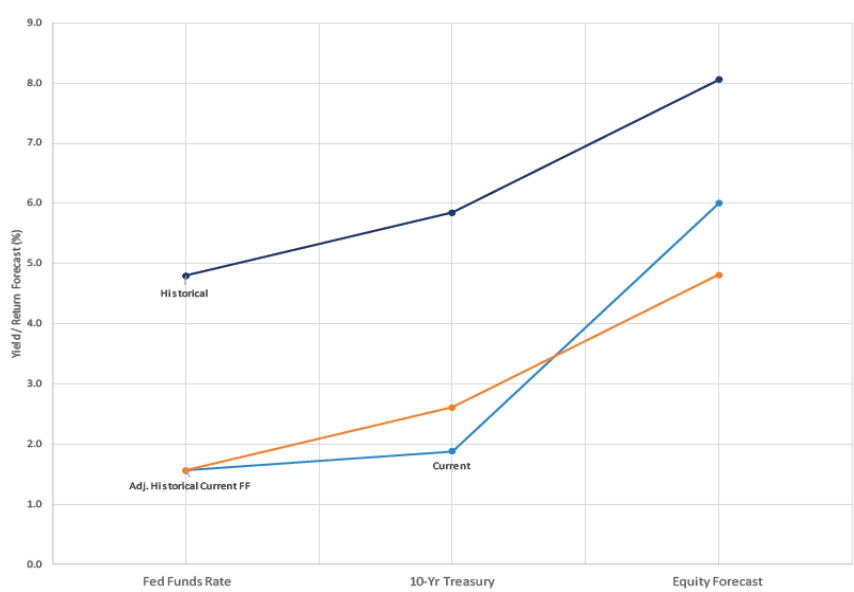
The U.S. Equity Market

The U.S. stock market, represented by the Wilshire 5000 Total Market Index℠, was up 9.08% for the fourth quarter of 2019 and 31.02% for the year. This marks the strongest year for U.S. equities since 2013. In December, the U.S. and China agreed to terms on a "Phase One" trade deal that is reported to reduce U.S. tariffs and increase Chinese purchases of some U.S. products. While few specific details have been released, China's top trade negotiator is scheduled to visit Washington to sign the deal in early January, once the agreement is formalized.

U.S. Equity	MTD (%)	QTD (%)	YTD (%)	1 Year (%)
Wilshire 5000 Total Market Index℠	2.93	9.08	31.02	31.02
Standard & Poor's 500	3.02	9.07	31.49	31.49
Wilshire 4500 Completion Index℠	2.43	8.69	28.06	28.06
U.S. Equity by Size/Style	**MTD (%)**	**QTD (%)**	**YTD (%)**	**1 Year (%)**
Wilshire US Large-Cap Index℠	2.91	9.09	31.51	31.51
Wilshire US Large-Cap Growth Index℠	2.85	11.24	35.79	35.79
Wilshire US Large-Cap Value Index℠	2.97	7.12	27.72	27.72
Wilshire US Small-Cap Index℠	3.01	9.01	26.21	26.21
Wilshire US Small-Cap Growth Index℠	2.54	10.08	29.49	29.49
Wilshire US Small-Cap Value Index℠	3.46	8.03	23.08	23.08
Wilshire US Micro-Cap Index℠	5.54	8.48	17.79	17.79

Large capitalization stocks outperformed their small cap counterparts by a slim margin for the quarter, as the Wilshire Large-Cap Index℠ was up 9.09% versus 9.01% for the Wilshire U.S. Small-Cap Index℠. The Wilshire U.S. Micro-Cap Index℠ was up 8.48% for the quarter and 17.79% for the year. Growth stocks again led value equities during the quarter and extended the outperformance for the past twelve months.

RELATIVE YIELDS / RETURN



Source: Federal Reserve, Wilshire

All of the eleven major sectors were in positive territory during the fourth quarter. The strongest performing sectors were Health Care (+15.4%), Information Technology (+14.3%) and Financials (+10.0%). The worst performing sectors were Utilities (+0.4%) and Real Estate (+0.5%).

In 2019, U.S. equities were as strong as they have been in six years and international equities produced double digit gains. U.S. core bonds were standout performers, delivering their best annual performance since 2002. So, what can we expect from here? The curve is no longer inverted so there is some reward for taking duration risk, however, that premium is currently more modest than it has been historically. Expectations for equities are a good news, bad news situation. The good news is that the equity risk premium is higher than what is typical. The bad news is that the absolute equity return forecast is still depressed. Entering 2020, investors will have to balance the tension between return requirements and equity return prospects.

The Non-U.S. Equity Market

Equity markets outside of the U.S. produced very strong results in 2019, although they generally underperformed the U.S. equity market. News out of Britain was mixed, with notable economic weakness in the manufacturing and services sectors. However, consumer sentiment surveys improved after a fourth quarter election resulted in strong support for a pro-Brexit government. Conditions in Germany are quite similar, with signs of economic weakness but improving sentiment. Japan experienced its fourth consecutive quarter of expansion, while also beating forecasts, due mostly to capital expenditures and private consumption. Emerging Markets were up, in aggregate, for the quarter, but generally trailed developed markets for the year. China benefitted from good news on the trade front although the country's economic growth has cooled to near 30-year lows.

	USD (%)				*Local Currency (%)*			
Non-U.S. Equity	MTD	QTD	YTD	1 Year	MTD	QTD	YTD	1 Year
MSCI AC World ex U.S.	4.33	8.92	21.51	21.51	2.43	6.18	20.75	20.75
MSCI EAFE	3.25	8.17	22.01	22.01	1.34	5.19	21.67	21.67
MSCI Europe	3.91	8.84	23.77	23.77	1.67	4.49	23.75	23.75
MSCI Pacific	2.21	7.03	19.25	19.25	0.82	6.37	18.48	18.48
MSCI Japan	2.09	7.64	19.61	19.61	1.31	8.24	18.48	18.48
MSCI EM (Emerging Markets)	7.46	11.84	18.42	18.42	5.74	9.54	18.05	18.05
MSCI ACWI ex U.S. Small Cap	4.93	11.01	22.42	22.42	2.96	8.12	21.60	21.60

The Fixed Income Market

The U.S. Treasury yield curve fell in the short portion of the curve, but rose across intermediate and long-term maturities. The largest increase occurred with the 20-year Treasury, which was up 31 basis points during the quarter. The 10-year Treasury yield ended the quarter at 1.92%, up 24 basis points from September. The Federal Open Market Committee decreased its overnight rate by 0.25% at the October meeting. The committee members are nearly unanimous about not changing rates during 2020 after being evenly split regarding future changes entering the fourth quarter. Credit spreads narrowed by quarter-end within both the investment grade and high yield markets.

U.S. Fixed Income	MTD (%)	QTD (%)	YTD (%)	1 Year (%)
Barclays U.S. Aggregate	-0.07	0.18	8.72	8.72
Barclays Long Govt./Credit	-1.14	-1.12	19.59	19.59
Barclays Long Term Treasury	-2.79	-4.12	14.83	14.83
Barclays U.S. TIPS	0.38	0.79	8.43	8.43
Barclays U.S. Credit	0.29	1.05	13.80	13.80
Barclays U.S. Corporate High Yield	2.00	2.61	14.32	14.32
Global Fixed Income	**MTD (%)**	**QTD (%)**	**YTD (%)**	**1 Year (%)**
Barclays Global Aggregate	0.58	0.49	6.84	6.84
Barclays Global Aggregate (Hedged)	-0.21	-0.49	8.22	8.22
JP Morgan EMBI Global Index	1.88	2.09	14.42	14.42
JP Morgan GBI Emerging Markets Global Diversified Index (Local)	0.94	1.56	12.34	12.34

The Real Estate & Commodity Markets

U.S. real estate securities were down during the fourth quarter but still produced strong results for the year. Global real estate securities are up for both periods, generating double-digit gains for the year. Commodity results were positive for the quarter as crude oil rose 12.9% to $61.06 per barrel. MLPs were down for the quarter (-4.08%) but produced positive results for 2019. Finally, gold prices were up and finished at approximately $1,523 per troy ounce, up +3.9% from last quarter.

Real Estate / Commodity	MTD (%)	QTD (%)	YTD (%)	1 Year (%)
Wilshire US RESI SM	-0.64	-1.07	25.79	25.79
Wilshire Global ex US RESI SM	2.68	5.67	21.29	21.29
Wilshire Global RESI SM	0.48	1.16	24.20	24.20
Bloomberg Commodity Index	5.22	4.60	7.88	7.88
S&P GSCI Commodity	6.99	8.31	17.63	17.63
Alerian MLP Index	8.53	-4.08	6.56	6.56

II. Direct Plan

Target Portfolios

The corresponding Age-Based portfolios are shown below

Report as of: December 31, 2019

	Conservative	Moderate	Aggressive	Month	QTD	YTD	1 Year	3 Year	5 Year	Since Inception
CollegeCounts Target Fund Fixed Income Portfolio	19+			**0.20%**	**0.51%**	**4.20%**	**4.20%**	**2.31%**	**1.69%**	**1.95%**
Target Fund Fixed Income Blended Benchmark				0.21%	0.52%	4.06%	4.06%	2.23%	1.67%	1.85%
Excess Return				-0.01%	-0.01%	0.14%	0.14%	0.09%	0.02%	0.10%
CollegeCounts Target Fund Fixed Income Composite				0.17%	0.46%	4.12%	4.12%	2.30%	1.75%	1.92%
CollegeCounts Fund 10 Portfolio	17-18	19+		**0.39%**	**1.18%**	**7.72%**	**7.72%**	**3.81%**	**n/a**	**3.22%**
Fund 10 Blended Benchmark				0.45%	1.22%	7.73%	7.73%	3.80%	n/a	3.20%
Excess Return				-0.06%	-0.04%	-0.01%	-0.01%	0.02%	n/a	0.02%
CollegeCounts Fund 10 Composite				0.40%	1.14%	7.72%	7.72%	3.81%	n/a	3.20%
CollegeCounts Target Fund 20 Portfolio	15-16	17-18	19+	**0.63%**	**1.78%**	**10.52%**	**10.52%**	**5.02%**	**3.84%**	**4.32%**
Target Fund 20 Blended Benchmark				0.68%	1.86%	10.61%	10.61%	5.03%	3.89%	4.32%
Excess Return				-0.05%	-0.08%	-0.09%	-0.09%	0.00%	-0.04%	0.00%
CollegeCounts Target Fund 20 Composite				0.63%	1.77%	10.56%	10.56%	5.01%	3.87%	4.29%
CollegeCounts Fund 30 Portfolio	13-14	15-16	17-18	**0.97%**	**2.59%**	**12.96%**	**12.96%**	**6.15%**	**n/a**	**5.39%**
Fund 30 Blended Benchmark				1.03%	2.72%	13.06%	13.06%	6.15%	n/a	5.42%
Excess Return				-0.05%	-0.12%	-0.10%	-0.10%	0.00%	n/a	-0.03%
CollegeCounts Fund 30 Composite				0.97%	2.63%	13.02%	13.02%	6.11%	n/a	5.36%
CollegeCounts Target Fund 40 Portfolio	11-12	13-14	15-16	**1.28%**	**3.45%**	**15.30%**	**15.30%**	**7.22%**	**5.47%**	**6.46%**
Target Fund 40 Blended Benchmark				1.33%	3.54%	15.40%	15.40%	7.23%	5.52%	6.48%
Excess Return				-0.05%	-0.09%	-0.10%	-0.10%	-0.01%	-0.05%	-0.02%
CollegeCounts Target Fund 40 Composite				1.28%	3.46%	15.34%	15.34%	7.21%	5.50%	6.43%
CollegeCounts Fund 50 Portfolio	9-10	11-12	13-14	**1.56%**	**4.31%**	**17.41%**	**17.41%**	**8.24%**	**n/a**	**7.50%**
Fund 50 Blended Benchmark				1.62%	4.36%	17.63%	17.63%	8.32%	n/a	7.59%
Excess Return				-0.06%	-0.05%	-0.21%	-0.21%	-0.08%	n/a	-0.09%
CollegeCounts Fund 50 Composite				1.57%	4.29%	17.60%	17.60%	8.29%	n/a	7.53%
CollegeCounts Target Fund 60 Portfolio	6-8	9-10	11-12	**1.89%**	**5.07%**	**19.43%**	**19.43%**	**9.06%**	**6.70%**	**8.36%**
Target Fund 60 Blended Benchmark				1.93%	5.09%	19.51%	19.51%	9.07%	6.73%	8.38%
Excess Return				-0.04%	-0.02%	-0.08%	-0.08%	0.00%	-0.03%	-0.03%
CollegeCounts Target Fund 60 Composite				1.88%	5.02%	19.50%	19.50%	9.07%	6.75%	8.35%
CollegeCounts Fund 70 Portfolio	3-5	6-8	9-10	**2.20%**	**5.78%**	**21.41%**	**21.41%**	**9.85%**	**n/a**	**9.18%**
Fund 70 Blended Benchmark				2.23%	5.79%	21.36%	21.36%	9.89%	n/a	9.24%
Excess Return				-0.03%	-0.01%	0.04%	0.04%	-0.04%	n/a	-0.06%
CollegeCounts Fund 70 Composite				2.21%	5.76%	21.67%	21.67%	9.91%	n/a	9.19%

Target Portfolios

Report as of: December 31, 2019

The corresponding Age-Based portfolios are shown below

	Conservative	Moderate	Aggressive	Month	QTD	YTD	1 Year	3 Year	5 Year	Since Inception
CollegeCounts Target Fund 80 Portfolio	0-2	3-5	6-8	**2.54%**	**6.79%**	**23.49%**	**23.49%**	**10.92%**	**8.04%**	**9.58%**
Target Fund 80 Blended Benchmark				2.60%	6.85%	23.50%	23.50%	10.95%	8.05%	9.84%
Excess Return				-0.06%	-0.06%	-0.01%	-0.01%	-0.03%	-0.01%	-0.26%
CollegeCounts Target Fund 80 Composite				2.57%	6.82%	23.70%	23.70%	11.37%	7.73%	9.57%
CollegeCounts Fund 90 Portfolio		0-2	3-5	**2.82%**	**7.53%**	**25.40%**	**25.40%**	**11.74%**	**n/a**	**11.22%**
Fund 90 Blended Benchmark				2.92%	7.65%	25.45%	25.45%	11.78%	n/a	11.30%
Excess Return				-0.10%	-0.12%	-0.04%	-0.04%	-0.04%	n/a	-0.08%
CollegeCounts Fund 90 Composite				2.89%	7.63%	25.61%	25.61%	11.79%	n/a	11.25%
CollegeCounts Target Fund 100 Portfolio			0-2	**3.23%**	**8.38%**	**27.45%**	**27.45%**	**12.50%**	**9.08%**	**10.95%**
Target Fund 100 Blended Benchmark				3.25%	8.38%	27.31%	27.31%	12.42%	8.99%	11.93%
Excess Return				-0.02%	0.00%	0.14%	0.14%	0.08%	0.09%	-0.98%
CollegeCounts Target Fund 100 Composite				3.21%	8.35%	27.38%	27.38%	12.48%	9.07%	11.94%

Notes:

The Inception Date for all Target Portfolios is August 2, 2010. The Inception Date for all non-Target Portfolios is September 28, 2016.

Excess Return percentages, as displayed, may be affected by rounding. Net performance excludes 529 Program Management fees (25 bps).

The Blended Benchmarks for the Target and Age-Based Portfolios are comprised of the Asset Class Benchmarks according to the CollegeCounts 529 Plan Investment Policy Statement. The computation of Blended Benchmarks used in reports prior to that time employed individual fund benchmarks.

Individual Portfolios

Money Market Funds

	Inception Date	Assets (MM)	Month	QTD	YTD	1 Year	3 Year	5 Year	Since Inception
Vanguard Prime Money Market 529 Portfolio †	8/2/2010	$26.1	0.13%	0.42%	2.12%	2.12%	1.60%	1.06%	0.59%
Citigroup Global Markets - 3 Month T-Bill Index			0.14%	0.46%	2.05%	2.05%	1.58%	1.01%	0.56%
Excess Return			-0.01%	-0.04%	0.07%	0.07%	0.02%	0.05%	0.03%

Fixed Income Funds

	Inception Date	Assets (MM)	Month	QTD	YTD	1 Year	3 Year	5 Year	Since Inception
PIMCO Short-Term 529 Portfolio	8/2/2010	$154.9	0.19%	0.41%	2.74%	2.74%	2.24%	2.14%	1.79%
Citigroup Global Markets 3-Month T-Bill Index			0.14%	0.46%	2.05%	2.05%	1.58%	1.01%	0.56%
Excess Return			0.05%	-0.05%	0.69%	0.69%	0.65%	1.14%	1.23%
Barclays - U.S. Gov't/Credit 1-3 Year Index			0.24%	0.59%	4.03%	4.03%	2.15%	1.67%	1.39%
Excess Return			-0.05%	-0.18%	-1.29%	-1.29%	0.09%	0.47%	0.40%
Vanguard Short-Term Infl-Protected 529 Portfolio †	9/30/2013	$26.9	0.78%	1.02%	4.81%	4.81%	2.05%	1.76%	1.17%
Barclays Capital - U.S. 0-5 Year TIPS Index			0.72%	1.14%	4.85%	4.85%	2.09%	1.81%	1.23%
Excess Return			0.06%	-0.12%	-0.04%	-0.04%	-0.03%	-0.05%	-0.06%
Vanguard Short Term Bond 529 Portfolio †	9/30/2013	$49.8	0.11%	0.42%	4.92%	4.92%	2.47%	1.98%	1.81%
Barclays 1-5 year Gov/Cred Float Adjusted Index			0.21%	0.50%	5.01%	5.01%	2.54%	2.03%	1.87%
Excess Return			-0.10%	-0.08%	-0.09%	-0.09%	-0.07%	-0.05%	-0.06%
Vanguard Inflation-Protected Securities 529 Portfolio	8/2/2010	$1.6	0.33%	0.52%	8.12%	8.12%	3.12%	2.44%	3.00%
Barclays Capital - U.S. TIPS Index			0.38%	0.79%	8.43%	8.43%	3.32%	2.62%	3.09%
Excess Return			-0.05%	-0.27%	-0.30%	-0.30%	-0.19%	-0.18%	-0.09%
MainStay Total Return Bond 529 Portfolio	12/17/2014	$102.2	0.11%	0.33%	9.38%	9.38%	4.16%	n/a	3.38%
Barclays Capital Aggregate Bond Index			-0.07%	0.18%	8.72%	8.72%	4.03%	n/a	3.05%
Excess Return			0.18%	0.15%	0.66%	0.66%	0.13%	n/a	0.33%

Notes:
Excess Return percentages, as displayed, may be affected by rounding. Net performance excludes 529 Program Manager fees (25 bps).
† Indicates fund is held in the Age-Based and Target Risk portfolios.

Individual Portfolios

	Inception Date	Assets (MM)	Month	QTD	YTD	1 Year	3 Year	5 Year	Since Inception
Fixed Income Funds (continued)									
Fidelity Advisor Investment Grade Bond 529 Portfolio	10/10/2012	$3.7	-0.06%	0.40%	9.59%	9.59%	4.22%	3.28%	2.92%
Barclays Capital Aggregate Bond Index			-0.07%	0.18%	8.72%	8.72%	4.03%	3.05%	2.65%
Excess Return			0.01%	0.22%	0.87%	0.87%	0.19%	0.23%	0.27%
Vanguard Total Bond Market Index 529 Portfolio †	8/2/2010	$114.3	-0.13%	0.06%	8.71%	8.71%	4.03%	3.01%	3.27%
Barclays Capital - U.S. Aggregate Float Adjusted Index			-0.09%	0.14%	8.87%	8.87%	4.08%	3.07%	3.33%
Excess Return			-0.04%	-0.08%	-0.16%	-0.16%	-0.05%	-0.07%	-0.06%
Balanced Funds									
T. Rowe Price Balanced 529 Portfolio	8/2/2010	$57.2	2.02%	5.47%	20.90%	20.90%	10.77%	7.72%	9.20%
T. Rowe Price Balanced Fund Blended Benchmark			1.97%	5.79%	22.13%	22.13%	10.70%	8.03%	9.63%
Excess Return			0.05%	-0.32%	-1.24%	-1.24%	0.07%	-0.31%	-0.43%
Domestic Equity Funds									
T. Rowe Price Large-Cap Growth 529 Portfolio	8/1/2014	$108.4	2.18%	9.98%	28.44%	28.44%	22.63%	15.84%	15.66%
Russell - 1000 Growth Index			3.02%	10.62%	36.39%	36.39%	20.49%	14.63%	15.05%
Excess Return			-0.84%	-0.64%	-7.95%	-7.95%	2.14%	1.21%	0.61%
Vanguard Growth Index 529 Portfolio	8/2/2010	$14.4	3.09%	9.88%	37.27%	37.27%	19.25%	13.20%	15.34%
CRSP US Large Cap Growth Index			3.11%	9.91%	37.31%	37.31%	19.28%	13.24%	15.46%
Excess Return			-0.02%	-0.03%	-0.05%	-0.05%	-0.03%	-0.04%	-0.12%

Notes:
Excess Return percentages, as displayed, may be affected by rounding. Net performance excludes 529 Program Manager fees (25 bps).
† Indicates fund is held in the Age-Based and Target Risk portfolios.

Individual Portfolios

Domestic Equity Funds (continued)

	Inception Date	Assets (MM)	Month	QTD	YTD	1 Year	3 Year	5 Year	Since Inception
Vanguard Total Stock Market Index 529 Portfolio †	8/2/2010	$163.1	2.88%	9.01%	30.78%	30.78%	14.56%	11.21%	13.94%
CRSP US Total Market Index			2.87%	9.00%	30.84%	30.84%	14.56%	11.21%	14.26%
Excess Return			0.01%	0.01%	-0.05%	-0.05%	0.00%	0.00%	-0.32%
Vanguard 500 Index 529 Portfolio	8/2/2010	$29.2	2.99%	9.06%	31.41%	31.41%	15.23%	11.67%	14.10%
S&P 500 Index			3.02%	9.07%	31.49%	31.49%	15.27%	11.70%	14.21%
Excess Return			-0.03%	-0.01%	-0.08%	-0.08%	-0.05%	-0.03%	-0.11%
DFA U.S. Large Cap Value 529 Portfolio	8/1/2014	$98.9	2.79%	9.02%	25.41%	25.41%	9.61%	8.63%	8.28%
Russell - 1000 Value Index			2.75%	7.41%	26.54%	26.54%	9.68%	8.29%	8.90%
Excess Return			0.04%	1.61%	-1.14%	-1.14%	-0.07%	0.35%	-0.62%
Vanguard Value Index 529 Portfolio	8/2/2010	$5.6	2.73%	8.25%	25.88%	25.88%	11.73%	10.08%	12.88%
CRSP US Large Cap Value Index			2.73%	8.25%	25.85%	25.85%	11.73%	10.09%	12.98%
Excess Return			0.00%	0.00%	0.03%	0.03%	0.00%	-0.01%	-0.10%
Vanguard Extended Market Index 529 Portfolio	8/2/2010	$2.0	2.18%	8.88%	27.96%	27.96%	11.12%	9.05%	12.72%
S&P Completion Index			2.16%	8.86%	27.95%	27.95%	10.97%	8.90%	12.93%
Excess Return			0.02%	0.02%	0.02%	0.02%	0.15%	0.15%	-0.21%
Vanguard Mid-Cap Index 529 Portfolio	8/2/2010	$9.2	2.41%	6.84%	31.03%	31.03%	12.35%	9.24%	12.96%
CRSP US Mid Cap Index			2.42%	6.88%	31.09%	31.09%	12.39%	9.29%	13.46%
Excess Return			-0.01%	-0.03%	-0.06%	-0.06%	-0.03%	-0.04%	-0.50%
Vanguard Explorer 529 Portfolio	8/1/2014	$1.9	2.05%	9.51%	31.50%	31.50%	16.41%	11.00%	11.27%
Russell - 2500 Growth Index			0.93%	10.57%	32.65%	32.65%	15.17%	10.84%	11.62%
Excess Return			1.12%	-1.06%	-1.16%	-1.16%	1.24%	0.16%	-0.35%

Notes:
Excess Return percentages, as displayed, may be affected by rounding. Net performance excludes 529 Program Manager fees (25 bps).
† Indicates fund is held in the Age-Based and Target Risk portfolios.

Individual Portfolios

Domestic Equity Funds (continued)

	Inception Date	Assets (MM)	Month	QTD	YTD	1 Year	3 Year	5 Year	Since Inception
Vanguard Small-Cap Growth Index 529 Portfolio	8/2/2010	$7.5	1.49%	9.38%	32.75%	32.75%	15.17%	10.52%	13.60%
CRSP US Small Cap Growth Index			1.48%	9.35%	32.75%	32.75%	15.13%	10.46%	13.72%
Excess Return			0.01%	0.04%	0.01%	0.01%	0.03%	0.06%	-0.12%
Vanguard Small-Cap Index 529 Portfolio	8/2/2010	$4.0	2.16%	8.08%	27.31%	27.31%	10.33%	8.89%	12.63%
CRSP US Small Cap Index			2.19%	8.12%	27.35%	27.35%	10.31%	8.86%	12.95%
Excess Return			-0.03%	-0.03%	-0.04%	-0.04%	0.02%	0.03%	-0.32%
DFA U.S. Small Cap Value 529 Portfolio	8/1/2014	$0.8	3.88%	9.19%	18.06%	18.06%	2.30%	4.83%	5.08%
Russell - 2000 Value Index			3.50%	8.49%	22.39%	22.39%	4.77%	6.99%	7.67%
Excess Return			0.38%	0.70%	-4.33%	-4.33%	-2.47%	-2.16%	-2.59%
Vanguard Small-Cap Value Index 529 Portfolio	8/2/2010	$3.6	2.81%	7.21%	22.82%	22.82%	6.37%	7.43%	11.64%
CRSP US Small Cap Value Index			2.78%	7.14%	22.76%	22.76%	6.40%	7.47%	11.99%
Excess Return			0.03%	0.07%	0.05%	0.05%	-0.03%	-0.04%	-0.35%

International Equity Funds

	Inception Date	Assets (MM)	Month	QTD	YTD	1 Year	3 Year	5 Year	Since Inception
Dodge & Cox International Stock 529 Portfolio	8/1/2014	$2.0	5.02%	10.70%	22.70%	22.70%	7.60%	3.61%	1.91%
MSCI - EAFE Index			3.25%	8.17%	22.01%	22.01%	9.56%	5.67%	3.74%
Excess Return			1.77%	2.53%	0.68%	0.68%	-1.96%	-2.06%	-1.83%
Vanguard Total International Stock Index 529 Portfolio †	8/2/2010	$86.7	4.30%	9.09%	21.55%	21.55%	9.84%	5.81%	5.43%
MSCI ACWI ex USA IMI Index			4.41%	9.20%	21.63%	21.63%	9.84%	5.71%	5.69%
Excess Return			-0.11%	-0.11%	-0.08%	-0.08%	0.00%	0.10%	-0.26%

Notes:
Excess Return percentages, as displayed, may be affected by rounding. Net performance excludes 529 Program Manager fees (25 bps).
† Indicates fund is held in the Age-Based and Target Risk portfolios.

Individual Portfolios

	Inception Date	Assets (MM)	Month	QTD	YTD	1 Year	3 Year	5 Year	Since Inception
Real Estate Funds									
Vanguard REIT Index 529 Portfolio †	8/2/2010	$23.8	0.82%	0.62%	29.00%	29.00%	8.36%	7.17%	10.76%
MSCI US IMI Real Estate 25/50 Index			0.64%	0.35%	27.62%	27.62%	7.84%	6.90%	10.88%
Excess Return			0.18%	0.26%	1.38%	1.38%	0.52%	0.26%	-0.12%

Notes:
Excess Return percentages, as displayed, may be affected by rounding. Net performance excludes 529 Program Manager fees (25 bps).
† Indicates fund is held in the Age-Based and Target Risk portfolios.

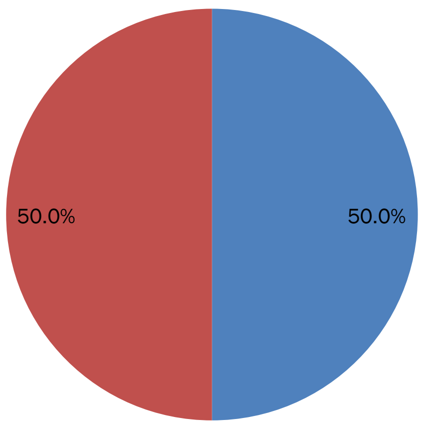
Asset Allocation

	Target Fund Fixed Income		Target Fund 20		Target Fund 40		Target Fund 60		Target Fund 80		Target Fund 100
Allocation as of 12/31/2019											
Aggressive Age-Based Option			19 plus	17-18	15-16	13-14	11-12	9-10	6-8	3-5	0-2
Moderate Age-Based Option		19 plus	17-18	15-16	13-14	11-12	9-10	6-8	3-5	0-2	
Conservative Age-Based Option	19 plus	17-18	15-16	13-14	11-12	9-10	6-8	3-5	0-2		
Money Market Funds											
Vanguard Prime Money Market	50.0%	23.0%	9.0%	-	-	-	-	-	-	-	-
Total Money Market Funds	50.0%	23.0%	9.0%	-	-	-	-	-	-	-	-
Fixed Income Funds											
Vanguard Short Term Bond Index	20.0%	22.0%	25.0%	22.0%	14.0%	11.0%	9.0%	6.0%	4.0%	2.0%	-
Vanguard Short-Term Infl Protected Securities Index	15.0%	14.0%	11.0%	13.0%	9.0%	4.0%	4.0%	4.0%	3.0%	2.0%	-
Vanguard Total Bond Market Index	15.0%	31.0%	35.0%	35.0%	37.0%	35.0%	27.0%	20.0%	13.0%	6.0%	-
Total Fixed Income Funds	50.0%	67.0%	71.0%	70.0%	60.0%	50.0%	40.0%	30.0%	20.0%	10.0%	-
Domestic Equity Funds											
Vanguard Total Stock Market Index	-	7.0%	13.0%	19.0%	25.0%	32.0%	36.0%	40.0%	49.0%	54.0%	56.0%
Total Domestic Equity Funds	-	7.0%	13.0%	19.0%	25.0%	32.0%	36.0%	40.0%	49.0%	54.0%	56.0%
International Equity Funds											
Vanguard Total International Stock Index	-	2.0%	4.0%	8.0%	12.0%	15.0%	19.0%	23.0%	26.0%	30.0%	36.0%
Total International Equity Funds	-	2.0%	4.0%	8.0%	12.0%	15.0%	19.0%	23.0%	26.0%	30.0%	36.0%
Real Estate Funds											
Vanguard REIT Index	-	1.0%	3.0%	3.0%	3.0%	3.0%	5.0%	7.0%	5.0%	6.0%	8.0%
Total Real Estate Funds	-	1.0%	3.0%	3.0%	3.0%	3.0%	5.0%	7.0%	5.0%	6.0%	8.0%
Total Allocation	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

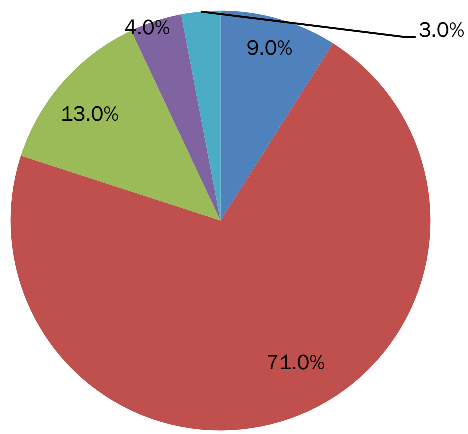
Asset Allocation

Allocation as of 12/31/2019

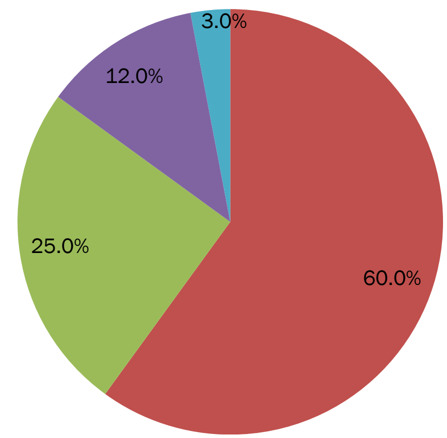
Target Fund Fixed Income



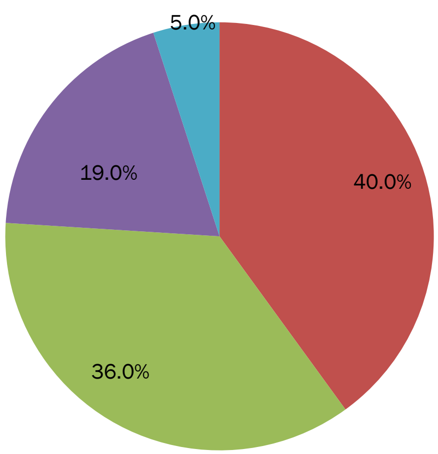
Target Fund 20



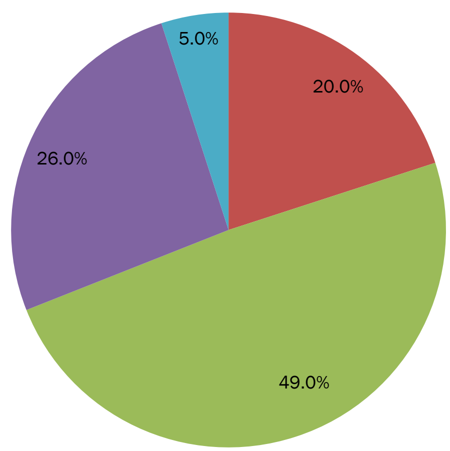
Target Fund 40



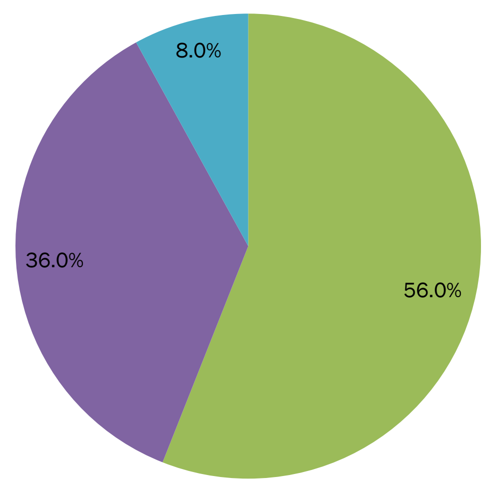
Target Fund 60



Target Fund 80



Target Fund 100



Money Market Funds | Fixed Income Funds | Domestic Equity Funds | International Equity Funds | Real Estate Funds

III. Advisor Plan

Target Portfolios

Report as of: December 31, 2019

The corresponding Age-Based portfolios are shown below

	Conservative	Moderate	Aggressive	Month	QTD	YTD	1 Year	3 Year	5 Year	Since Inception
CollegeCounts Target Fund Fixed Income Portfolio	19+			**0.22%**	**0.47%**	**3.75%**	**3.75%**	**2.18%**	**1.63%**	**1.61%**
Target Fund Fixed Income Blended Benchmark				0.21%	0.52%	3.64%	3.64%	2.08%	1.38%	1.49%
Excess Return				0.01%	-0.05%	0.11%	0.11%	0.10%	0.25%	0.12%
CollegeCounts Target Fund Fixed Income Composite				0.22%	0.49%	3.68%	3.68%	2.14%	1.64%	1.72%
CollegeCounts Fund 10 Portfolio	17-18	19+		**0.58%**	**1.40%**	**7.23%**	**7.23%**	**3.86%**	**n/a**	**3.56%**
Fund 10 Blended Benchmark				0.54%	1.34%	7.26%	7.26%	3.75%	n/a	3.23%
Excess Return				0.04%	0.06%	-0.04%	-0.04%	0.11%	n/a	0.32%
CollegeCounts Fund 10 Composite				0.57%	1.37%	7.19%	7.19%	3.70%	n/a	3.42%
CollegeCounts Target Fund 20 Portfolio	15-16	17-18	19+	**0.86%**	**2.11%**	**9.58%**	**9.58%**	**4.94%**	**3.90%**	**4.60%**
Target Fund 20 Blended Benchmark				0.81%	1.89%	9.50%	9.50%	4.81%	3.62%	4.28%
Excess Return				0.05%	0.22%	0.08%	0.08%	0.13%	0.28%	0.32%
CollegeCounts Target Fund 20 Composite				0.88%	2.02%	9.49%	9.49%	4.90%	3.85%	4.47%
CollegeCounts Fund 30 Portfolio	13-14	15-16	17-18	**1.15%**	**2.99%**	**11.93%**	**11.93%**	**5.92%**	**n/a**	**5.65%**
Fund 30 Blended Benchmark				1.15%	2.86%	12.07%	12.07%	5.88%	n/a	5.26%
Excess Return				0.00%	0.13%	-0.14%	-0.14%	0.04%	n/a	0.39%
CollegeCounts Fund 30 Composite				1.21%	2.99%	12.03%	12.03%	5.95%	n/a	5.66%
CollegeCounts Target Fund 40 Portfolio	11-12	13-14	15-16	**1.52%**	**3.80%**	**14.29%**	**14.29%**	**6.97%**	**5.28%**	**6.31%**
Target Fund 40 Blended Benchmark				1.38%	3.28%	13.98%	13.98%	6.80%	5.15%	5.97%
Excess Return				0.13%	0.53%	0.31%	0.31%	0.17%	0.12%	0.34%
CollegeCounts Target Fund 40 Composite				1.48%	3.55%	13.96%	13.96%	6.88%	5.20%	6.03%
CollegeCounts Fund 50 Portfolio	9-10	11-12	13-14	**1.74%**	**4.60%**	**16.59%**	**16.59%**	**8.04%**	**n/a**	**7.73%**
Fund 50 Blended Benchmark				1.71%	4.36%	16.81%	16.81%	7.99%	n/a	7.36%
Excess Return				0.02%	0.24%	-0.22%	-0.22%	0.05%	n/a	0.37%
CollegeCounts Fund 50 Composite				1.74%	4.60%	16.62%	16.62%	8.04%	n/a	7.74%
CollegeCounts Target Fund 60 Portfolio	6-8	9-10	11-12	**2.04%**	**5.43%**	**18.07%**	**18.07%**	**8.58%**	**6.34%**	**7.70%**
Target Fund 60 Blended Benchmark				2.00%	4.83%	17.82%	17.82%	8.46%	6.36%	7.20%
Excess Return				0.04%	0.60%	0.25%	0.25%	0.12%	-0.02%	0.50%
CollegeCounts Target Fund 60 Composite				2.05%	5.15%	17.68%	17.68%	8.48%	6.28%	7.19%

Target Portfolios

Report as of: December 31, 2019

The corresponding Age-Based portfolios are shown below

	Conservative	Moderate	Aggressive	Month	QTD	YTD	1 Year	3 Year	5 Year	Since Inception
CollegeCounts Fund 70 Portfolio	3-5	6-8	9-10	**2.32%**	**6.14%**	**19.84%**	**19.84%**	**9.29%**	**n/a**	**8.98%**
Fund 70 Blended Benchmark				2.23%	5.80%	20.00%	20.00%	9.26%	n/a	8.75%
Excess Return				0.08%	0.33%	-0.16%	-0.16%	0.03%	n/a	0.23%
CollegeCounts Fund 70 Composite				2.32%	6.18%	19.89%	19.89%	9.27%	n/a	8.97%
CollegeCounts Target Fund 80 Portfolio	0-2	3-5	6-8	**2.55%**	**7.11%**	**22.02%**	**22.02%**	**10.35%**	**7.52%**	**9.17%**
Target Fund 80 Blended Benchmark				2.59%	6.82%	22.39%	22.39%	10.28%	7.71%	9.03%
Excess Return				-0.04%	0.28%	-0.37%	-0.37%	0.07%	-0.19%	0.14%
CollegeCounts Target Fund 80 Composite				2.60%	7.14%	22.04%	22.04%	10.33%	7.50%	8.83%
CollegeCounts Fund 90 Portfolio		0-2	3-5	**2.79%**	**7.95%**	**24.10%**	**24.10%**	**11.23%**	**n/a**	**10.93%**
Fund 90 Blended Benchmark				2.73%	7.36%	23.85%	23.85%	10.89%	n/a	10.64%
Excess Return				0.07%	0.59%	0.26%	0.26%	0.34%	n/a	0.30%
CollegeCounts Fund 90 Composite				2.80%	7.79%	23.73%	23.73%	11.00%	n/a	10.75%
CollegeCounts Target Fund 100 Portfolio			0-2	**3.08%**	**8.76%**	**26.01%**	**26.01%**	**11.98%**	**8.51%**	**10.53%**
Target Fund 100 Blended Benchmark				3.11%	7.90%	25.37%	25.37%	11.09%	7.99%	8.39%
Excess Return				-0.04%	0.86%	0.64%	0.64%	0.89%	0.53%	2.14%
CollegeCounts Target Fund 100 Composite				3.07%	8.34%	25.17%	25.17%	11.08%	7.73%	8.35%

Notes:

The Inception Date for all Target Portfolios is August 2, 2010. The Inception Date for all non-Target Portfolios is September 28, 2016.

Excess Return percentages, as displayed, may be affected by rounding. Net performance excludes 529 Program Management fees (32 bps) and State Administration fees (10 bps).

The Blended Benchmarks for the Target and Age-Based Portfolios are comprised of the Asset Class Benchmarks according to the CollegeCounts 529 Plan Investment Policy Statement. The computation of Blended Benchmarks used in reports prior to that time employed individual fund benchmarks.

Individual Portfolios

	Inception Date	Assets (MM)	Month	QTD	YTD	1 Year	3 Year	5 Year	Since Inception

Money Market Funds

	Inception Date	Assets (MM)	Month	QTD	YTD	1 Year	3 Year	5 Year	Since Inception
State Street U.S. Government Money Market 529 Portfolio †	7/27/2016	$57.7	0.11%	0.37%	1.97%	1.97%	1.37%	n/a	4.24%
T-Bill			0.14%	0.46%	2.28%	2.28%	1.67%	n/a	5.26%
Excess Return			-0.03%	-0.10%	-0.31%	-0.31%	-0.30%	n/a	-1.02%

Fixed Income Funds

	Inception Date	Assets (MM)	Month	QTD	YTD	1 Year	3 Year	5 Year	Since Inception
PIMCO Short-Term 529 Portfolio †	8/2/2010	$152.6	0.12%	0.38%	2.69%	2.69%	2.23%	2.12%	1.77%
Citigroup Global Markets 3-Month T-Bill Index			0.14%	0.46%	2.25%	2.25%	1.65%	1.05%	0.60%
Excess Return			-0.02%	-0.09%	0.44%	0.44%	0.58%	1.07%	1.17%
Barclays - U.S. Gov't/Credit 1-3 Year Index			0.24%	0.59%	4.03%	4.03%	2.15%	1.67%	1.42%
Excess Return			-0.12%	-0.22%	-1.34%	-1.34%	0.08%	0.44%	0.35%
American Century Short Duration Inflation Protection Bond 529 Portfolio †	9/26/2013	$76.3	0.86%	1.05%	4.57%	4.57%	1.67%	1.50%	0.80%
Barclays Capital - U.S. 1-5 Year TIPS Index			0.78%	1.15%	5.08%	5.08%	2.07%	1.84%	1.24%
Excess Return			0.08%	-0.10%	-0.51%	-0.51%	-0.41%	-0.34%	-0.44%
BlackRock Inflation-Protected Bond 529 Portfolio	8/2/2010	$2.1	0.61%	1.17%	8.21%	8.21%	3.07%	2.22%	2.69%
Barclays Capital U.S. TIPS Index			0.38%	0.79%	8.43%	8.43%	3.32%	2.62%	3.25%
Excess Return			0.23%	0.38%	-0.22%	-0.22%	-0.24%	-0.40%	-0.56%
Fidelity Advisor Investment Grade Bond 529 Portfolio	10/10/2012	$3.6	-0.04%	0.45%	9.67%	9.67%	4.32%	3.30%	2.83%
Barclays Capital - U.S. Aggregate Index			-0.07%	0.18%	8.72%	8.72%	4.03%	3.05%	2.67%
Excess Return			0.02%	0.27%	0.95%	0.95%	0.29%	0.25%	0.16%

Notes:
Excess Return percentages, as displayed, may be affected by rounding. Net performance excludes 529 Program Manager fees (32 bps) and State Administration fees (10bps).
† Indicates fund is held in the Age-Based and Target Risk portfolios.

Individual Portfolios

	Inception Date	Assets (MM)	Month	QTD	YTD	1 Year	3 Year	5 Year	Since Inception
Fixed Income Funds (continued)									
Northern Funds Bond Index 529 Portfolio †	8/2/2010	$100.3	-0.12%	0.17%	8.70%	8.70%	3.88%	2.90%	3.03%
Barclays Capital - U.S. Aggregate Index			-0.07%	0.18%	8.72%	8.72%	4.03%	3.05%	3.57%
Excess Return			-0.06%	-0.01%	-0.02%	-0.02%	-0.15%	-0.15%	-0.54%
MainStay Total Return Bond 529 Portfolio †	12/17/2014	$101.3	0.04%	0.27%	9.46%	9.46%	4.22%	n/a	3.23%
Barclays Capital - U.S. Aggregate Index			-0.07%	0.18%	8.72%	8.72%	4.03%	n/a	3.05%
Excess Return			0.10%	0.09%	0.75%	0.75%	0.19%	n/a	0.18%
Touchstone High Yield 529 Portfolio †	10/10/2012	$44.4	1.87%	1.94%	14.07%	14.07%	5.56%	4.55%	4.37%
BofA Merrill Lynch - High Yield Master II Index			2.09%	2.61%	14.41%	14.41%	6.33%	6.13%	5.97%
Excess Return			-0.22%	-0.67%	-0.34%	-0.34%	-0.77%	-1.58%	-1.60%
Templeton International Bond 529 Portfolio †	10/10/2012	$43.1	1.64%	1.06%	2.15%	2.15%	1.93%	1.25%	0.74%
Citigroup Global Markets - Non U.S. Govt Bond Index ($)			0.83%	-0.07%	5.32%	5.32%	4.49%	1.87%	-0.04%
Excess Return			0.81%	1.13%	-3.17%	-3.17%	-2.56%	-0.62%	0.78%
Balanced Funds									
T. Rowe Price Balanced 529 Portfolio	8/2/2010	$56.5	2.02%	5.49%	20.98%	20.98%	10.82%	7.76%	9.21%
T. Rowe Price Balanced Fund Blended Benchmark			1.97%	5.79%	22.13%	22.13%	10.70%	8.03%	9.11%
Excess Return			0.05%	-0.30%	-1.16%	-1.16%	0.12%	-0.28%	0.10%
Domestic Equity Funds									
T. Rowe Price Large Cap Growth 529 Portfolio †	8/2/2010	$105.6	2.19%	10.01%	28.50%	28.50%	22.71%	15.93%	17.16%
Russell 1000 Growth Index			3.02%	10.62%	36.39%	36.39%	20.49%	14.63%	15.00%
Excess Return			-0.82%	-0.61%	-7.89%	-7.89%	2.23%	1.31%	2.16%

Notes:
Excess Return percentages, as displayed, may be affected by rounding. Net performance excludes 529 Program Manager fees (32 bps) and State Administration fees (10bps).
† Indicates fund is held in the Age-Based and Target Risk portfolios.

Individual Portfolios

Domestic Equity Funds (continued)

	Inception Date	Assets (MM)	Month	QTD	YTD	1 Year	3 Year	5 Year	Since Inception
American Century Equity Growth 529 Portfolio	8/2/2010	$6.8	2.25%	7.51%	28.60%	28.60%	13.83%	9.27%	13.16%
S&P 500 Index			3.02%	9.07%	31.49%	31.49%	15.27%	11.70%	13.19%
Excess Return			-0.77%	-1.56%	-2.89%	-2.89%	-1.44%	-2.42%	-0.03%
Northern Stock Index 529 Portfolio †	8/2/2010	$114.6	3.00%	9.01%	31.36%	31.36%	15.17%	11.59%	14.05%
S&P 500 Index			3.02%	9.07%	31.49%	31.49%	15.27%	11.70%	13.19%
Excess Return			-0.01%	-0.06%	-0.12%	-0.12%	-0.10%	-0.11%	0.86%
DFA US Large Cap Value 529 Portfolio †	2/6/2018	$96.9	2.84%	9.12%	25.51%	25.51%	n/a	n/a	10.97%
Russell 1000 Value Index			2.75%	7.41%	26.54%	26.54%	n/a	n/a	9.13%
Excess Return			0.08%	1.71%	-1.03%	-1.03%	n/a	n/a	1.84%
Northern Mid-Cap Index 529 Portfolio †	8/2/2010	$68.3	2.77%	6.98%	25.96%	25.96%	9.09%	8.85%	12.48%
S&P - Midcap 400 Index			2.81%	7.06%	26.20%	26.20%	9.26%	9.03%	11.38%
Excess Return			-0.03%	-0.08%	-0.24%	-0.24%	-0.17%	-0.18%	1.10%
T. Rowe Price QM US Small-Cap Growth Equity 529 Portfolio †	9/28/2016	$19.4	1.95%	8.67%	32.98%	32.98%	14.88%	n/a	14.15%
MSCI - U.S. Small Cap Growth Index			2.32%	10.28%	29.50%	29.50%	12.68%	n/a	12.72%
Excess Return			-0.37%	-1.62%	3.48%	3.48%	2.19%	n/a	1.43%
Northern Small Cap Index 529 Portfolio	8/2/2010	$7.0	2.77%	9.81%	25.23%	25.23%	8.45%	8.10%	11.70%
Russell - 2000 Index			2.88%	9.94%	25.52%	25.52%	8.59%	8.23%	10.49%
Excess Return			-0.11%	-0.13%	-0.30%	-0.30%	-0.14%	-0.13%	1.21%

Notes:
Excess Return percentages, as displayed, may be affected by rounding. Net performance excludes 529 Program Manager fees (32 bps) and State Administration fees (10bps).
† Indicates fund is held in the Age-Based and Target Risk portfolios.

Individual Portfolios

	Inception Date	Assets (MM)	Month	QTD	YTD	1 Year	3 Year	5 Year	Since Inception
Domestic Equity Funds (continued)									
William Blair Small Cap Value 529 Portfolio	8/2/2010	$10.4	2.18%	4.66%	20.55%	20.55%	3.08%	5.54%	9.54%
Russell 2000 Value Index			3.50%	8.49%	22.39%	22.39%	4.77%	6.99%	9.10%
Excess Return			-1.32%	-3.83%	-1.84%	-1.84%	-1.69%	-1.45%	0.44%
Northern Small Cap Value Fund	8/2/2010	$12.8	2.87%	6.71%	22.27%	22.27%	3.95%	6.50%	9.58%
Russell 2000 Value Index			3.50%	8.49%	22.39%	22.39%	4.77%	6.99%	9.10%
Excess Return			-0.63%	-1.78%	-0.13%	-0.13%	-0.82%	-0.49%	0.47%
International Equity Funds									
Northern International Equity Index 529 Portfolio †	8/2/2010	$58.3	3.10%	7.81%	21.99%	21.99%	9.66%	5.74%	5.88%
MSCI - EAFE Index ($Net)			3.25%	8.17%	22.01%	22.01%	9.56%	5.67%	5.32%
Excess Return			-0.15%	-0.36%	-0.02%	-0.02%	0.10%	0.07%	0.56%
Neuberger Berman Int'l Large Cap 529 Portfolio †	8/2/2010	$75.9	3.39%	9.65%	26.55%	26.55%	11.21%	6.45%	6.38%
MSCI - EAFE Index ($Net)			3.25%	8.17%	22.01%	22.01%	9.56%	5.67%	5.32%
Excess Return			0.14%	1.48%	4.53%	4.53%	1.65%	0.78%	1.06%
DFA International Small Company 529 Portfolio †	10/10/2012	$13.9	4.94%	12.18%	23.80%	23.80%	8.75%	7.48%	8.51%
MSCI - World Ex USA Small Index ($Net)			4.63%	11.40%	25.41%	25.41%	10.42%	8.17%	8.79%
Excess Return			0.31%	0.78%	-1.61%	-1.61%	-1.67%	-0.70%	-0.28%

Notes:
Excess Return percentages, as displayed, may be affected by rounding. Net performance excludes 529 Program Manager fees (32 bps) and State Administration fees (10bps).
† Indicates fund is held in the Age-Based and Target Risk portfolios.

Individual Portfolios

International Equity Funds (continued)

	Inception Date	Assets (MM)	Month	QTD	YTD	1 Year	3 Year	5 Year	Since Inception
Vanguard Emerging Mkt Sel Stk 529 Portfolio †	4/9/2019	$25.7	7.08%	12.05%	n/a	n/a	n/a	n/a	4.98%
FTSE Emerging Index			6.99%	11.81%	20.55%	n/a	n/a	n/a	6.67%
Excess Return			0.09%	0.23%	n/a	n/a	n/a	n/a	-1.69%

Real Estate Funds

	Inception Date	Assets (MM)	Month	QTD	YTD	1 Year	3 Year	5 Year	Since Inception
Principal Global Real Estate 529 Portfolio †	4/9/2019	$21.6	0.02%	2.71%	n/a	n/a	n/a	n/a	8.88%
FTSE EPRA/NAREIT Developed Index (Net)			0.49%	1.75%	21.91%	n/a	n/a	n/a	7.81%
Excess Return			-0.47%	0.97%	n/a	n/a	n/a	n/a	1.07%
DFA Real Estate 529 Portfolio †	4/9/2019	$3.9	0.48%	-0.12%	n/a	n/a	n/a	n/a	9.48%
Dow Jones U.S. Select REIT Index			-0.94%	-1.23%	23.11%	n/a	n/a	n/a	6.58%
Excess Return			1.42%	1.11%	n/a	n/a	n/a	n/a	2.90%

Commodity Funds

	Inception Date	Assets (MM)	Month	QTD	YTD	1 Year	3 Year	5 Year	Since Inception
Credit Suisse Commodity Return Strategy 529 Portfolio †	10/10/2012	$15.3	4.92%	4.33%	6.53%	6.53%	-1.69%	-4.44%	-7.82%
Bloomberg Commodity - UBS Commodity Index (Total Return)			5.04%	4.42%	7.69%	7.69%	-0.94%	-3.92%	-7.27%
Excess Return			-0.12%	-0.09%	-1.16%	-1.16%	-0.76%	-0.52%	-0.55%

Notes:
Excess Return percentages, as displayed, may be affected by rounding. Net performance excludes 529 Program Manager fees (32 bps) and State Administration fees (10bps).
† Indicates fund is held in the Age-Based and Target Risk portfolios.

Asset Allocation

Allocation as of 12/31/2019

	Target Fund Fixed Income		Target Fund 20		Target Fund 40		Target Fund 60
Aggressive Age-Based Option			19 plus	17-18	15-16	13-14	11-12
Moderate Age-Based Option		19 plus	17-18	15-16	13-14	11-12	9-10
Conservative Age-Based Option	19 plus	17-18	15-16	13-14	11-12	9-10	6-8
Money Market Funds							
State Street U.S. Government Money Market	50.0%	23.0%	9.0%	-	-	-	-
Total Money Market Funds	50.0%	23.0%	9.0%	-	-	-	-
Fixed Income Funds							
PIMCO Short-Term	20.0%	22.0%	25.0%	22.0%	14.0%	11.0%	9.0%
American Century Short Duration Inflation Protected	15.0%	14.0%	11.0%	13.0%	9.0%	4.0%	4.0%
Northern Bond Index	8.0%	13.0%	13.0%	13.0%	11.0%	9.0%	7.0%
Mainstay Total Return	7.0%	12.0%	12.0%	12.0%	14.0%	14.0%	10.0%
Touchstone High Yield	-	3.0%	5.0%	5.0%	6.0%	6.0%	5.0%
Templeton International Bond	-	3.0%	5.0%	5.0%	6.0%	6.0%	5.0%
Total Fixed Income Funds	50.0%	67.0%	71.0%	70.0%	60.0%	50.0%	40.0%
Domestic Equity Funds							
T. Rowe Price Large Cap Growth	-	2.0%	3.0%	4.0%	6.0%	7.0%	8.0%
Northern Equity Index	-	3.0%	6.0%	7.0%	8.0%	10.0%	10.0%
DFA US Large Cap Value	-	2.0%	3.0%	4.0%	6.0%	7.0%	8.0%
Northern Mid-Cap Index	-	1.0%	2.0%	2.0%	3.0%	6.0%	6.0%
T. Rowe Price QM U.S. Small-Cap Growth	-	-	-	1.0%	1.0%	1.0%	2.0%
Northern Small Cap Value	-	-	-	1.0%	1.0%	1.0%	2.0%
Total Domestic Equity Funds	-	8.0%	14.0%	19.0%	25.0%	32.0%	36.0%
International Equity Funds							
Northern International Equity Index	-	1.0%	2.0%	4.0%	4.0%	5.0%	6.0%
Neuberger Berman Int'l Large Cap	-	1.0%	2.0%	4.0%	6.0%	8.0%	8.0%
DFA International Small Company	-	-	-	-	-	-	2.0%
Vanguard Emerging Markets Select	-	-	-	1.0%	1.0%	2.0%	3.0%
Total International Equity Funds	-	2.0%	4.0%	9.0%	11.0%	15.0%	19.0%
Real Estate Funds							
Principal Global RE	-	-	1.0%	1.0%	2.0%	2.0%	3.0%
Total Real Estate Funds	-	-	1.0%	1.0%	2.0%	2.0%	3.0%
Credit Suisse Commodity Return Strategy	-	-	1.0%	1.0%	2.0%	1.0%	2.0%
Total Commodity Funds	-	-	1.0%	1.0%	2.0%	1.0%	2.0%
Total Allocation	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

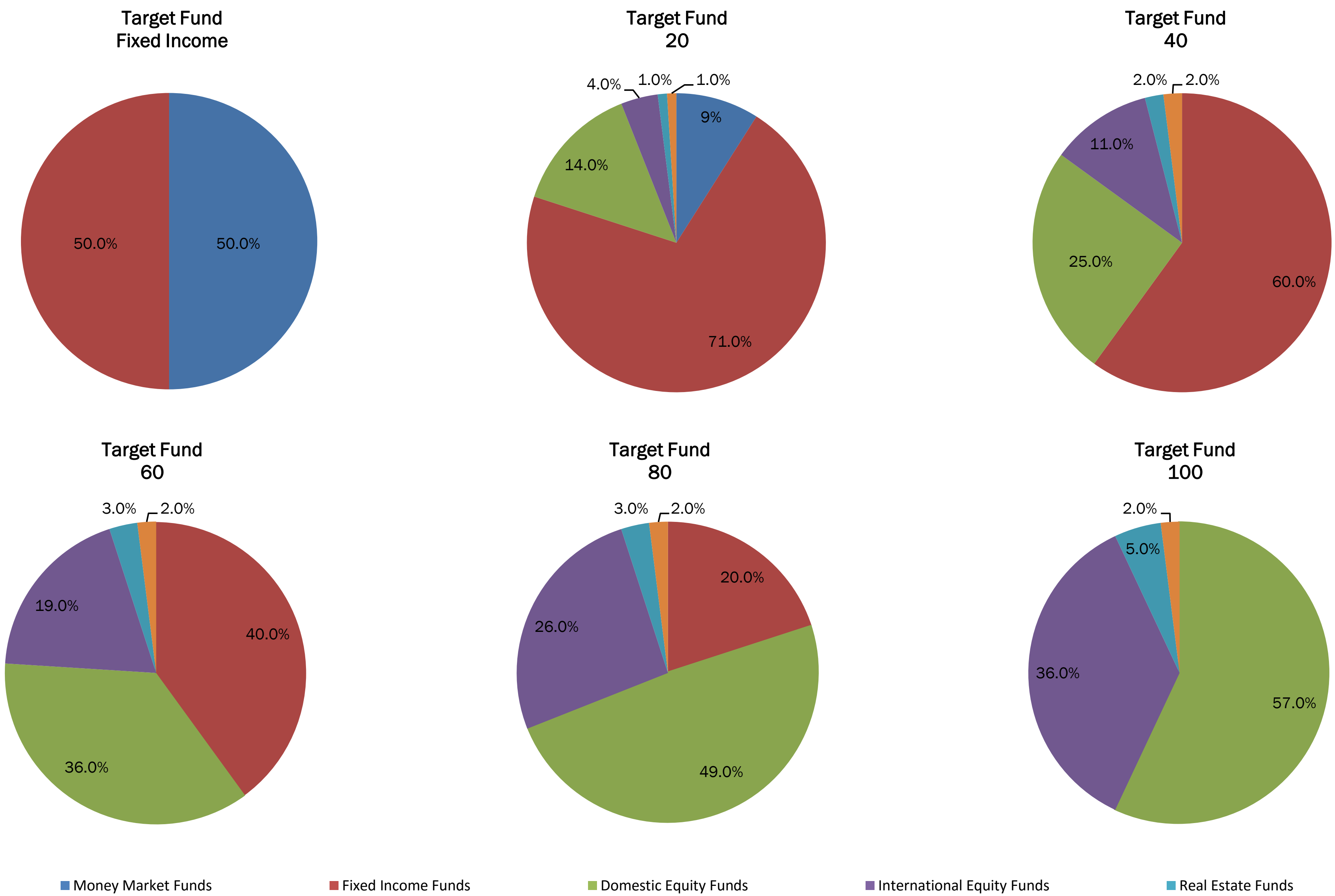
Asset Allocation

Allocation as of 12/31/2019

		Target Fund 80		Target Fund 100
Aggressive Age-Based Option	9-10	6-8	3-5	0-2
Moderate Age-Based Option	6-8	3-5	0-2	
Conservative Age-Based Option	3-5	0-2		
Money Market Funds				
State Street U.S. Government Money Market	-	-	-	-
Total Money Market Funds	-	-	-	-
Fixed Income Funds				
PIMCO Short-Term	6.0%	4.0%	2.0%	-
American Century Short Duration Inflation Protected	4.0%	3.0%	2.0%	-
Northern Bond Index	5.0%	3.0%	2.0%	-
Mainstay Total Return	7.0%	4.0%	2.0%	-
Touchstone High Yield	4.0%	3.0%	1.0%	-
Templeton International Bond	4.0%	3.0%	1.0%	-
Total Fixed Income Funds	30.0%	20.0%	10.0%	-
Domestic Equity Funds				
T. Rowe Price Large Cap Growth	9.0%	11.0%	12.0%	13.0%
Northern Equity Index	11.0%	13.0%	16.0%	16.0%
DFA US Large Cap Value	9.0%	11.0%	12.0%	12.0%
Northern Mid-Cap Index	7.0%	8.0%	8.0%	10.0%
T. Rowe Price QM U.S. Small-Cap Growth	2.0%	3.0%	3.0%	3.0%
Northern Small Cap Value	2.0%	3.0%	3.0%	3.0%
Total Domestic Equity Funds	40.0%	49.0%	54.0%	57.0%
International Equity Funds				
Northern International Equity Index	7.0%	8.0%	9.0%	11.0%
Neuberger Berman Int'l Large Cap	10.0%	11.0%	13.0%	15.0%
DFA International Small Company	3.0%	3.0%	4.0%	5.0%
Vanguard Emerging Markets Select	3.0%	4.0%	4.0%	5.0%
Total International Equity Funds	23.0%	26.0%	30.0%	36.0%
Real Estate Funds				
Principal Global RE	4.0%	3.0%	4.0%	5.0%
Total Real Estate Funds	4.0%	3.0%	4.0%	5.0%
Credit Suisse Commodity Return Strategy	3.0%	2.0%	2.0%	2.0%
Total Commodity Funds	3.0%	2.0%	2.0%	2.0%
Total Allocation	100.0%	100.0%	100.0%	100.0%

Asset Allocation

Allocation as of 12/31/2019



IV. Mutual Fund Evaluations

Mutual Fund Evaluations

Advisor Plan:

	Fund	Ticker	Prior Manager Research Decile	Current Manager Research Decile
Fixed Income Funds	PIMCO Short-Term Fund	PTSHX	4	3
	American Century Short Duration Inflation Protected	APISX	4	4
	BlackRock Inflation-Protected Bond	BPRIX	4	5
	Fidelity Advisor Investment Grade Bond	FGBPX	2	2
	Mainstay Total Return	MTMIX	2	5
	Touchstone High Yield	THIYX	3	3
	Templeton International Bond	FIBZX	2	2
Balanced Funds	T. Rowe Price Balanced Fund	RPBAX	1	1
Domestic Equity Funds	T. Rowe Price Large Cap Growth	TRLGX	3	2
	American Century Equity Growth Fund	AMEIX	4	4
	DFA US Large Cap Value	DFLVX	2	2
	T. Rowe Price QM U.S. Small-Cap Growth	TQAIX	3	3
	William Blair Small Cap Value Fund	BVDIX	2	2
	Northern Small Cap Value Fund	NOSGX	3	4
International Equity	Neuberger Berman Int'l Large Cap Fund	NILIX	1	1
	DFA International Small Company	DFISX	2	2
	Vanguard Emerging Markets Select Stock Fund	VMMSX	2	2
Real Estate Funds	Principal Global Real Estate	PGRSX	1	1
	DFA Real Estate	DFREX	3	3
Commodity Funds	Credit Suisse Commodity Return Strategy	CRSOX	3	3

Direct Plan:

	Fund	Ticker	Prior Manager Research Decile	Current Manager Research Decile
Fixed Income	PIMCO Short-Term Fund	PTSHX	4	3
	Fidelity Advisor Investment Grade Bond	FGBPX	2	2
Balanced Funds	T. Rowe Price Balanced Fund	RPBAX	1	1

	Rating									
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	A		B		C		D		F	

Manager Research

American Century Investment Management, Inc.

U.S. Disciplined Large Cap Core

Summary

	Rating Decile	Weight
Summary	4th	100%

American Century's U.S. Disciplined Large Cap Core strategy is designed to outperform the S&P 500 Index by 150-200 bps annually with an expected tracking error of 1.5-3%. The strategy is managed in a quantitative fashion, using diligent portfolio construction, risk management, and implementation processes. While the factor groups that are being analyzed are not tremendously unique, the team has recently focused on incorporating proprietary adjustments in order to enhance returns and differentiate their alpha model.

I. Organization

	Rating Decile	Weight
I. Organization	5th	20%
Firm	*3rd*	*50%*
Team	*7th*	*50%*

American Century Investment Management, Inc. ("ACIM") was founded in 1958 in Kansas City, MO, and originally operated under the name Twentieth Century Investors. The original founder, James Stowers, Jr., unfortunately passed away in 1Q14 and his family along with the Stowers Institute of Research (focused on cancer and gene based diseases research), maintains a 46% equity stake and 70% of the voting rights. The firm pays out 40% of its dividends to the Stowers Institute. The next largest owner is CIBC, a leading Canadian financial institution, with 41% economic interest and 10.1% of the voting stock. CIBC originally purchased its stake from JPM in August 2011. However, CIBC sold its stake to Nomura in 4Q15 for $1B after unsuccessful attempts to acquire more ownership. The transaction closed in May 2016. Employees hold the remaining percentages.

The firm's Disciplined Equity group is led by Peruvemba Satish, Ph.D., CFA (CIO of Disciplined Equity, Senior Vice President and PM) who took over for Vinod Chandrashekaran in 2Q19. The U.S. Disciplined Large Cap Core product was launched in 1991 and is currently managed by Lead PM Claudia Musat and assisted by co-PM Steve Rossi and the rest of the firm's Disciplined Equity team, which includes just under ten additional portfolio managers/analysts. The Disciplined Equity group has seen notable turnover historically. It was previously led by Vinod Chandrashekaran, Ph.D., CFA, Senior VP and Senior PM of the Non-U.S. Disciplined Large Cap Core & Non-U.S. Disciplined Large Cap Value strategies, who will be leaving the firm in mid-August 2019 to pursue other opportunities. Dr. Chandrashekaran assumed the CIO title in 2Q17 from Scott Wittman who departed the firm to spend more time with his family. In addition, Bill Martin, Lead PM of the U.S. Disciplined Large Cap Core strategy retired in May 2016 after 27 years with the firm. As a result, Ms. Musat took over as Lead PM and Steve Rossi, previously at RS Investments, was added as a co-PM. The Disciplined Equity group also experienced extensive turnover between 2010 and 2012, including the departures of multiple portfolio managers, the retirement of their CIO, and the departure of two directors of quantitative research. Overall, elevated levels of historical turnover have negatively impacted the team's organization score despite their impact being fairly minimal given the disciplined and highly structured nature of the team's quantitative investment approach.

II. Information

	Rating Decile	Weight
II. Information	6th	20%

Due to the quantitative nature of the strategy, the information gathering process is based on extracting data from various external sources to feed the team's multiple models. Internal research, including all model enhancement research, accounts for more than 85% of the information gathering process. Ideas for new factors are developed from factor attribution, reviewing academic journals, street research, and attending conferences. Primary sources of data include Compustat, IBES, First Call, Ivy Options, and Standard & Poor's. Each factor in the model must pass a sensibility test to ensure the model is grounded in sound financial and economic principles.

Company visits and/or management meetings are not a component of the information gathering process; however, the team reviews each trade list to ensure data integrity and to capture company-specific news that is not included in the model, including mergers and acquisitions, recent earnings reports, corporate restructuring, etc.. The team will also conduct more detailed reviews of securities with large changes in alpha scores, large daily price movements, and trades related to benchmark changes. Overall, the information gathering process is sufficient versus other quantitative peers, but the depth of information is not on par with fundamental managers in the space. As a result, the product receives a slightly below average rating.

American Century Investment Management, Inc.

U.S. Disciplined Large Cap Core

III. Forecasting

	Rating Decile	Weight
III. Forecasting	4th	20%

The security selection process is based on the team's alpha scoring model with a qualitative overlay. The starting universe of 3,000+ stocks is screened for market capitalization, liquidity, and data availability. The remaining stocks are analyzed using a multi-factor quantitative model segmented into four general groups which in total consist of 20+ total risk/return dimensions: quality (business strength, management quality), valuation (P/CF, P/E), sentiment (long-term, short-term), and growth (relative growth rate, growth sustainability). An excess return projection is produced for every security passing the initial screen. After the model ranks the stocks, the top rated stocks are inserted into an initial optimizer to identify the most attractive buy and sell candidates. An initial trade list is reviewed prior to implementation to check data and to assess if there are any irregularities that the model did not identify.

The team has made several enhancements to its process since the financial crisis. The number of signals in the model has been reduced in order to emphasize only the highest conviction factors. In order to increase consistency and lower volatility, the team has improved the balance of its four factor groups. The team has also incorporated more proprietary signals into the model in order to better differentiate their views from the market and reduce the model's dependence on the classic value-momentum trade. Examples of these proprietary signals include an options-based momentum signal as well as fundamental momentum linkages up and down the supply chain.

IV. Portfolio Construction

	Rating Decile	Weight
IV. Portfolio Construction	3rd	20%

The U.S. Disciplined Large Cap Core portfolio, typically consisting of 100-200 securities, strives to achieve 150-200 bps excess return annually versus the S&P 500 benchmark, while maintaining a tracking error of 1.5-3%. On a benchmark relative basis, sector weights are constrained to +/- 5%, industry weights are restricted to +/- 4%, while individual securities are limited to a maximum active weight of +1.5%. In general, the portfolio strives to mimic the benchmark's factor exposures.

The team employs the Barra framework for risk analysis and optimization. The optimization component of this strategy is a differentiating factor in that the group integrates multiple optimization phases in constructing their portfolio. After reviewing the trade list generated from an initial optimization, the team re-optimizes the portfolio using their final list of names to ensure that they are building the most efficient portfolio. The optimization process will continue until the team is comfortable with every trade on their final list of candidates. The optimizer's primary purpose is to manage risk in respect to industry, style and security selection. Portfolios are rebalanced every two weeks, at a minimum.

Overall, the group implements a systematic and highly risk-controlled portfolio construction process, which results in an above average rating.

V. Implementation

	Rating Decile	Weight
V. Implementation	1st	10%

American Century has an equity trading department of 11 people in Kansas City and New York, though no traders are specifically dedicated to the U.S. Disciplined Large Cap Core product. The team adds significant value through their unique and integrated trading platform. Instead of measuring best execution on a trade-by-trade basis, the group analyzes their trading efficiency from a holistic standpoint. They do this by implementing a proprietary order/management system which connects them to most brokers and alternative trading platforms via a variety of financial information exchange connections. Through their alternative trading systems and ECNs, the group has access to numerous trading options allowing them to execute the best trades available.

In addition to maximizing their trading opportunities, the team also uses a model that is designed to predict transaction costs, giving them an estimate of the round-trip expense of each security in their universe. The model also estimates the market impact of purchasing or selling various amounts of a certain security by analyzing the liquidity and price movements of each security. Lastly, the team's optimizer balances the transaction cost estimates with their expected excess returns to find the optimal portfolio. The firm subscribes to Abel Noser and Plexus for transaction cost analysis. The average annual turnover for the strategy has been approximately 80-120%. Overall, the trading strategy is very sophisticated allowing the team to capture an additional source of alpha. Implementation ranks highly.

American Century Investment Management, Inc.

U.S. Disciplined Large Cap Core

	Rating Decile	Weight
VI. Attribution	3rd	10%

The team uses Factset as their primary performance attribution tool. The analysis focuses on the contributions to performance from security, industry, and sector decisions. The team performs their attribution analysis on a monthly basis and seeks to add value to their process by deciphering the sources of excess performance. The team is well informed about the sources of losses and gains, and uses attribution analysis to identify areas for further research, specifically regarding factor ideas or portfolio construction techniques. As a result, the attribution efforts rank above average.

	Rating									
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	A		B		C		D		F	

American Century Investment Management, Inc.

U.S. Disciplined Large Cap Core

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June 7, 2018

Manager Research

American Century Investment Management, Inc.

U.S. Short Duration Inflation Protection Bond

	Rating Decile	Weight
Summary	4th	100%

The American Century Short Duration Inflation-Protected Bond strategy seeks to outperform the Bloomberg Barclays Capital US 1-5 Year TIPS Index by 25-75 bps with an expected tracking error of 50-150 bps over a normal market cycle. The team targets an information ratio of ~0.5. At a minimum, the strategy has to maintain 80% invested in inflation-linked securities. The rest of the portfolio can be invested in nominal fixed income securities, which may cause increased volatility relative to a more traditional “pure-play” inflation protection mandate. At the end of 2014, investment guidelines were adjusted to increase non-investment grade allocations to 20% maximum from 10%. Maximum exposure to nominal bonds remains at 20% maximum. Prior to August 2011, this strategy was managed to the Bloomberg Barclays US TIPS Index, which is roughly 5 years longer in inflation duration than the Bloomberg Barclays 1-5 Year Index.

The strategy is available as a separate account for qualified institutional investors, as well as, two mutual fund offerings (expense ratio), APOAX (82bps) and APISX (37bps).

	Rating Decile	Weight
I. Organization	4th	20%
Firm	*3rd*	*50%*
Team	*4th*	*50%*

American Century Investment Management, Inc. (“ACIM”) was founded in 1958 in Kansas City, MO, and originally operated under the name Twentieth Century Investors. The original founder, James Stowers, Jr., unfortunately passed away in 1Q14 and his family along with the Stowers Institute of Research (focused on cancer and gene based diseases research), maintains a 46% equity stake and 70% of the voting rights. The firm pays out 40% of its dividends to the Stowers Institute. The next largest owner is CIBC, a leading Canadian financial institution, with 41% economic interest and 10.1% of the voting stock. CIBC originally purchased its stake from JPM in August 2011. However, CIBC sold its stake to Nomura in 4Q15 for $1B after unsuccessful attempts to acquire more ownership. The transaction closed in May 2016. Employees hold the remaining percentages.

The fixed income team is led by CIO Dave MacEwen and supported by a team of experienced portfolio managers and analysts. The investment professionals are compensated with base salary, plus incentive bonus on trailing 1, 3 and 5Y against its respective benchmark and peer group. Restricted stocks are granted and vest over 3 years. The compensation plan was recently updated to increase the focus on longer term performance and appears adequate for minimizing investment personnel turnover.

The firm announced that Dave MacEwen, CIO of Global Fixed Income, will retire at the end of 2018. Mr. MacEwen has been at American Century for almost 27 years, and is listed as a senior portfolio manager on several fixed income strategies. The firm is currently searching for a replacement for this role, and is evaluating both internal and external candidates.

Mr. MacEwen also chairs the Global Macro Strategy team, which formulates the top-down macro themes for the Fixed Income portfolios. The Global Macro Strategy team is made up of seven fixed income investment team members, including Mr. MacEwen, and is responsible for fixed income portfolios. Each group member on both of these teams (including Dave) has equal say, and these groups issue consensus views on how portfolios should be run. The person hired to replace Mr. MacEwen will also take over his role as chair of the Global Macro Strategy team.

While it is being telegraphed that Mr. MacEwen moved to a more managerial role four years ago in preparation for his retirement, we view this as a loss to the team in terms of thought leadership. In addition, since the firm is searching both internally and externally for a replacement, the search may affect team dynamics amongst the current Global Macro Strategy team members. The team score has been downgraded.

Overall, the organization is above average in terms of quality of the investment professionals, stability, and experience. A few of the key organization risks we identified were: 1) organizational risk at the broader level from having Nomura as one of the equity holders; 2) stronger presence in the retail space and DC business, however, the firm is slowly building up its institutional effort; and 3) strategy launch efforts tend to be late relative to peers.

American Century Investment Management, Inc.

U.S. Short Duration Inflation Protection Bond

	Rating Decile	Weight
II. Information	3rd	20%

The team does not seek unique sources of information. A starting point in the investment process is the team's use of historical modeling to examine spread relationships over the most recent market cycle. Additionally, the team uses industry valuation databases to help identify changes between particular industries and credits in an effort to understand relative value.

The information gathering process is completely centered around the fair value trading level of sectors and individual securities based on mean reversion back to historical ranges. The team has significant experience that when combined with its information gathering process, helps exploit information inefficiencies across sectors. Risk to the integrity of this process would be turnover of senior members of the investment team as their industry experiences are central to this part of the process.

	Rating Decile	Weight
III. Forecasting	4th	20%

The Short Duration Inflation-Protected Bond strategy implements an actively managed, multiple sector approach to hedge against U.S. inflation. The strategy attempts to exploit the mean reversion aspect of bond markets by actively managing sector allocation, yield curve and duration positioning. The strategy's main forecasting drivers are its sector specialists and the autonomous sector examination done by each team. Relative value is a key focus and a strong determinant factor at the time of security purchase. Securities for inclusion are assessed on fundamental credit analysis conducted by each respective sector team. Risk budgeting is loosely defined and could cause the strategy to lag its benchmark when losing trades aren't exited at predetermined levels. The forecasting process is not unique compared to its peer group; however, the personnel breadth does provide a clear and repeatable process.

The firm's Analytics Group, which was built to support the Global team, uses quantitative tools to put together heat maps, risk on/risk off models, momentum analysis, and inflation outlooks. Given the strategy's non-US exposure, we view these tools as a positive addition for the team's process, so the Forecasting score has been increased.

	Rating Decile	Weight
IV. Portfolio Construction	4th	20%

The American Century Short Duration Inflation-Protected Bond strategy seeks to outperform the Bloomberg Barclays Capital US 1-5 Year TIPS Index by 25-75 bps with an expected tracking error of 50-150 bps, over a normal market cycle. Prior to Aug 2011, this strategy was managed to the Bloomberg Barclays US TIPS Index, which is roughly 5 years longer in inflation duration than the Bloomberg Barclays 1-5 Year Index. At least 80% of the fund's assets are invested in inflation-linked debt securities by prospectus. The fund may invest up to 20% of assets in nominal debt securities, including non-dollar and non-investment grade debt. The maximum allocation to non-investment grade debt was increased to 20% at the end of 2014. US Treasury futures and inflation swaps are frequently used in the portfolio to manage inflation and nominal durations, as well as express active yield curve positioning. The strategy limits futures and swaps notional exposures as a percentage of the portfolio's cash market value to 100% and 15%, respectively. As a reminder, the amount notional exposure employed is based on a contribution to duration basis. Finally, single issuer is limited to 5% max, excluding government/agency debentures and pass through securities.

The portfolio duration is maintained within ±20% of its benchmark duration. Active duration management has been sparsely utilized, as the team does not historically view this as a material source of alpha. However, the team is active in yield curve positioning to express its interest rate views. The team's historical attribution indicates excess returns were derived from security selection (50%), sector allocation (25%), and duration/yield curve positioning (25%).

The firm's Analytics Group, which was built to support the Global team, uses quantitative tools to put together heat maps, risk on/risk off models, momentum analysis, and inflation outlooks. Given the strategy's non-US exposure, we view these tools as a positive addition for the team's process, so the Portfolio Construction score has been increased.

American Century Investment Management, Inc.

U.S. Short Duration Inflation Protection Bond

	Rating Decile	Weight
V. Implementation	3rd	10%

As a firm, American Century does not execute trades through a centralized trading desk. Portfolio managers within each respective sector teams conduct their own trading through direct contacts with the Street. Trades are entered using the Bloomberg Portfolio Order Management System. For the Short Duration Inflation-Protected Bond strategy, all transactions are approved and documented prior to execution by a multi-departmental Derivatives Committee comprised of personnel from the investment management, trading, investment accounting and legal departments. Relative to its peer group the firm has adequate resources dedicated to its trading process.

	Rating Decile	Weight
VI. Attribution	2nd	10%

A dedicated risk management team provides oversight and daily monitoring of the firm's strategies. At a macro level, risk management includes both forward-looking analysis to determine current and anticipated risk profiles, as well as, backward-looking analysis to provide feedbacks on its proprietary risk models reliability. These risk models provide tracking error, scenario analysis, and performance attribution. Different portfolio risks are managed and reviewed on a daily, weekly, and monthly basis. A variety of external tools such as Bloomberg and Yield Book, as well as, other internal proprietary systems are also utilized to complement this process. Portfolio duration, yield curve, and sector weighting risk relative to the benchmark are monitored daily by the portfolio managers.

In January 2018, the firm transitioned to Aladdin's portfolio and risk management systems. Wilshire views these enhancements in their risk management as a positive and upgraded the Attribution rating.

	Rating									
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	A		B		C		D		F	

American Century Investment Management, Inc.

U.S. Short Duration Inflation Protection Bond

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Manager Research

BlackRock

TIPS

Rating Decile	Weight
5th	100%

Summary

BlackRock offers an actively managed “pure-play” TIPS products designed to outperform the index by 50-75 basis points with a duration band of ±20% of the benchmark. The Inflation Linked team is headed by Akiva Dickstein, with a large supporting cast of analysts. Brian Weinstein resigned in June 2014, but he was primarily focused on separate account core/core plus strategies. Martin Hegarty resigned in March 2018.

BlackRock offers two US TIPS strategies: US TIPS and US TIPS Constrained. The difference is US TIPS Constrained does not use derivatives such as futures, FX forwards, IR swaps, caps, floors, or options. In addition, active currency positions are also not utilized for the US TIPS Constrained strategy, whereas US TIPS strategy can have up to 5-10% active weight. The US TIPS Constrained is a more “pure-play” TIPS strategy given the limited options available. Conversely, US TIPS should be categorized with other TIPS strategies that use spread products to generate excess return because of its use of FX and non-USD sovereigns. Historical absolute return dispersion is roughly ±20 bps relative to the US TIPS Constrained strategy.

BlackRock

TIPS

	Rating Decile	Weight
I. Organization	6th	30%
Firm	*4th*	*50%*
Team	*7th*	*50%*

BlackRock (BLK), founded in 1988, is known for combining sophisticated analytical tools with a systematic process to manage fixed income, equity and alternative strategies. In the 1990's, BLK became the fixed income manager for PNC Financial Services. BlackRock went public (NYSE: BLK) in 1999 with PNC as its majority shareholder. In the 2000's, BLK launched BlackRock Solutions, acquired State Street Research and Management, SSR Realty and also acquired fund of funds business from Quellos Group, LLC. In 2008, it launched Financial Markets Advisory business as part of BlackRock Solutions. In 2009, BLK hired 29 investment professionals from R3 Capital Partners and announced the purchase Barclays Global Investors (BGI). BGI's Active Equity group became known as the Scientific Active Equity group, which remains based in San Francisco. Through these M&A spanning 20+ years, BlackRock has grown to become the world's largest asset manager with AUM of over $5 trillion.

Compensation comprises of a base salary, discretionary bonus, and employee stock purchase plan. For most professionals, compensation reflects investment performance and the success of the business or product area.

BlackRock, Inc. is independent in ownership and governance, with no single majority stockholder and a majority of independent directors. PNC Financial Services Group, Inc. ("PNC") owns roughly 20% of BlackRock and institutional investors, employees and the public own the rest. With regard to voting stock, PNC owns 21.1% and institutional investors, employees and the public own 78.9% of voting shares.

Rick Rieder is the CIO for the Fundamental Fixed Income platform at BlackRock. He joined BlackRock in 2009 and was named CIO in 2010. Mr. Rieder is also the lead PM for BlackRock's Total Return and Unconstrained strategies.

The Inflation Linked strategy is team managed and headed by Akiva Dickstein, with support from a team of sector heads and a plethora of analysts. Martin Hegarty, formerly the lead PM for the strategy, resigned in March 2018. At the end of 2016, Chris Allen joined the team as a lead portfolio manager, and worked closely with Mr. Hegarty on the day-to-day management of the portfolios. Going forward, Messrs. Dickstein and Allen will be responsible for the day-to-day management of the portfolios.

Mr. Hegarty was previously a TIPS market maker and risk taker at Merrill Lynch, and was brought in as a co-PM after the departure of Adam Bowman, a PM of the Global Inflation Linked Team, in March 2010. The other co-PM, Brian Weinstein, resigned in June 2014. However, we believe Mr. Weinstein was a co-PM by name only as his primary focus was core/core plus separate accounts. In addition, performance has not been strong since Mr. Weinstein's departure. This may be a function of market technicals, and underperformance could be spuriously correlated with Mr. Weinstein's departure. Nonetheless, BlackRock has duly noted our observations.

Mr. Hegarty's departure is a significant loss to the team, since he has been a constant for the TIPS strategies since he began working at Blackrock in 2010. Further, Mr. Dickstein is the Head of Customized Multi-Sector Portfolios within BlackRock's Global Fixed Income group, a member of the Global Fixed Income executive team, and is a portfolio manager of BlackRock's Core Bond Fund. Given Mr. Dickstein's current workload, he will likely not be able to provide the same level of oversight on the ILB portfolios as did Mr. Hegarty, so the team score has been downgraded.

	Rating									
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	A		B		C		D		F	

BlackRock

TIPS

	Rating Decile	Weight
II. Information	3rd	17.5%

Eighty percent of Blackrock's fixed income research, encompassing both quantitative and credit analysis, is performed in-house. Quantitative evaluations are performed on BlackRock Solutions, a proprietary system that is integrated into the portfolio management process. The system provides scenario and horizon analyses, micro-analysis of derivative mortgage securities, OAS and duration/convexity analyses. Securities are subjected to stress-test scenarios to identify effects on duration and cash flow due to interest rate shifts. Credit analysis is performed by a team of analysts who work with portfolio managers in offices around the globe.

Blackrock has demonstrated expertise in structured securities. The models used in analyzing these securities are integrated into an extensive infrastructure to support bond valuation across various structured products.

Blackrock measures, monitors, and controls yield curve exposure through the use of multiple duration and convexity measurements. Key rate duration analysis allows portfolio managers to measure the sensitivity of a specific security or an entire portfolio to non-uniform shifts across parts of the yield curve. This permits the team to augment portfolio duration and key rate duration methodologies with current estimates of volatility and yield curve movement correlations. In addition to its quantitative interest rate and yield curve analysis, the firm is able to pull from its global research team as part of its fundamental economic analysis and incorporates interest rate, yield curve and currency research. Dedicated sector teams also provide additional research.

Security-specific relative value is identified by option-adjusted-spread, option-adjusted-duration, and swap spread duration analyses. These analyses are performed on current holdings as well as marketplace alternatives.

Overall, the team can access a wide array of data covering various markets. That said, the process has changed somewhat in the last couple of years. The team began formally documenting individual trades supported by investment thesis, market levels, and P&L. Trades are coded as either structural or technical themes. Further, the portfolio has relied on more technical mean-reversion trading to generate alpha. Historical performance since this change (mid-2015) has not yielded strong results.

	Rating Decile	Weight
III. Forecasting	5th	17.5%

US TIPS and global inflation-linked bonds (GILB) strategies include duration and yield curve positioning, break-even spread between US TIPS/global inflation-linked bonds and nominal securities, technical supply/demand anomalies related primarily to the auction cycle, seasonal factors related to the CPI, currency exposure, and sector (country) allocation.

The team focuses on relative value opportunities between ILBs and their nominal counterparts as well as probability-weighted arbitrage for trading global real curve and breakeven inflation, real rate strategies, and idiosyncratic factors for issue-specific relative value. BlackRock's probability weighted arbitrage strategies involve modeling these relationships and identifying times when the valuations do not match the most likely mathematical outcomes. These usually involve real yield curve trades and breakeven curve trades where the risk/reward is heavily skewed in favor of the desired outcome.

To evaluate ILBs across the curve, the team maintains a proprietary inflation-forecasting model that incorporates the current inflation run-rate and adjusts it for both energy price volatility as well as broader macro themes likely to influence forward inflation expectations and actual prints (e.g., home prices). In addition, the carry and roll metrics of ILBs are regularly refreshed to serve as a baseline from which the team may assess opportunities.

The team works closely with BLK's Risk & Quantitative Analysis Group (RQA) and relies on its many models to find relative value. The process appears repeatable and has helped the team produce consistent and predictable performance in a normal business cycle. This is expected to deliver performance alpha through inflation-related and liquid real rate-based strategies. Unexpected performance volatility from credit risk or illiquid strategies should be minimal. Resources for this strategy are abundant from both human and technology capital perspectives. However, relative performance has been lacking for the past couple of years and Wilshire believes some of this may be attributed to a change in its process.

BlackRock

TIPS

	Rating Decile	Weight
IV. Portfolio Construction	5th	17.5%

BlackRock applies a two-step decision-making process in constructing fixed income portfolios. Decisions regarding sector rotation and duration/yield curve are determined by the Portfolio Team. Execution and security selection are made by the Investment Teams within their respective sectors. Investment Teams are responsible for selecting securities that offer the greatest relative value.

A large component of trading activity is from managing the portfolio's duration and yield curve exposures relative to the benchmark. In addition, individual security trades are executed on duration neutral and yield curve neutral basis. Out-of-benchmark exposures are permitted to be as high as 20% of the portfolio. The level of tracking error normally ranges between 35 and 65 basis points.

BlackRock evaluates trade ideas by reviewing anticipated returns versus actual performance. Collectively, ex-ante tracking error and attribution are used to validate the risk models and the team's ability to manage risk versus excess return. In early 2010, the team eliminated exposure to credit and MBS in their TIPS strategy, while holding a curve flattening and a shorter duration stance.

Though Wilshire expressed concerns regarding excess return consistency and persistency, we believe the team is still focused on risk budgeting. Many of their trades have not generated favorable results in the past couple of years, but their risk management focus has buffered additional losses.

One of the fund's stated primary alpha sources is duration positioning, and the duration of the fund can range ±20% from the benchmark. Wilshire would prefer that the duration positioning stay within a smaller band relative to the benchmark in a TIPS fund. In addition, given the uncertainty regarding how the portfolio will be run under Mr. Dickstein's leadership, the Portfolio Construction rating has been reduced.

	Rating Decile	Weight
V. Implementation	4th	8.8%

BlackRock has an advanced trading platform, and demonstrated competitive advantage in this area. It used to be that investment managers, not dedicated traders, aggregated all trades into blocks to achieve optimal executions. With the newly integrated structure after the BGI acquisition, trading teams were created.

BlackRock has developed Aladdin, a proprietary, centralized, and integrated investment system. Aladdin provides a platform with straight-through processing from analytics, to trade entry, compliance, operations, administration, and finally reporting. This comprehensive system used throughout the organization, thus eliminating redundant data input, enhancing integrity, reducing operational and compliance risks, and providing consistency. Within Aladdin is a comprehensive suite of risk management reports (the Green Package®). These reports are produced daily, many on real-time basis. All reports are available online either through the BlackRock intranet site or dedicated client websites. Reports can be easily customized, enabling each BlackRock professional to focus on information most pertinent to the individual. Trading resources and execution rank above average relative to peers.

	Rating Decile	Weight
VI. Attribution	2nd	8.8%

BlackRock's proprietary attribution model, created in 1998, is used internally to assess the performance of portfolios on a monthly basis. The team uses it to fine tune the investment process and to better understand the sources of relative performance. After the Merrill Lynch merger, BlackRock made adjustments and improved the process. BlackRock's Aladdin system is one of the better systems on the market for third-party managers and asset owners.

The Attribution score was previously rerated to coincide with the discovery of a newly "formalized" trade report monitoring (which was implemented in mid-2015). The score was reduced for not having such monitoring in the first place. However, Wilshire believes this to be a good addition to its process for feedback on what trades did and did not work.

	Rating									
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	A		B		C		D		F	

BlackRock

TIPS

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Wilshire

February 27, 2019

Manager Research

William Blair

Small Cap Value

Rating Decile	Weight
2nd	100%

Summary

William Blair offers a fundamentally driven bottom-up small cap value strategy, which is relatively benchmark neutral in terms of sector and risk exposures. The portfolio management team has experienced notable stability as the three portfolio managers have worked together for the past 13 years. The investment process combines rigorous quantitative screening techniques with in depth fundamental research and thorough financial modeling of each respective investment. The investment philosophy is relative value in orientation, seeking companies with attractive valuations, improving business fundamentals, and shareholder oriented management teams. The team places a significant emphasis on free cash flow return on invested capital as a primary valuation metric within this discipline. The resulting portfolio is diversified by type of company with approximately two-thirds of the portfolio invested in quality companies at a discounted valuation with the balance invested in corporate transformation stories. The strategy tends to hold 80-100 holdings. The performance of the strategy has been very consistent under the current portfolio management team with considerable value added from strong stock selection. While the strategy will tend to exhibit stronger downside protection due to its higher quality (ROIC) orientation, the team has historically performed well across a wide variety of market environments. Wilshire finds the strategy to be an attractive option for clients seeking active small cap exposure in the quality value space.

During October 2018, the firm re-opened the strategy to new separate account investors after soft closing the strategy during 2017. The mutual fund vehicle also remains open to new investors.

William Blair

Small Cap Value

	Rating Decile	Weight
I. Organization	1st	20%
Firm	*1st*	*50%*
Team	*1st*	*50%*

William Blair & Company, LLC was founded in 1935 as a Chicago-based full service financial firm offering asset management, investment banking, and equity research amongst other functions. Asset management accounts for the majority of revenues and the firm offers a competitive compensation plan with 100% of its equity being broadly distributed amongst over 170 active principals with a profit sharing program available to all employees. The firm is registered with the SEC as both an investment manager and broker dealer, and its broker dealer activities are regulated by FINRA. Assets under management have growth steadily over the years, primarily on the success of the firm's offerings in the international and emerging markets equity space. William Blair does offer alternatives and fixed income products, but equity products dominate the firm's overall product mix.

All professionals at William Blair have the opportunity to become a partner and there are partner-level career paths for portfolio managers and research analysts. The investment professionals who are partners of the firm have compensation consisting of a base salary, a share of the firm's profits, and a discretionary bonus. Each partner's ownership stake and bonus (if any) can vary over time, and is determined by the individual's sustained contribution to the firm's revenue, profitability, and long-term investment performance. We maintain a high opinion of the firm and its partnership culture.

In early 2016, the firm received a Wells Notice from the SEC after opening a non-public investigation with respect to the administrative fees paid by a subset of the William Blair Mutual Funds. In early 2017, the firm paid a $4.5 million settlement to the SEC for minor payment errors (that were reimbursed to the Funds with interest) and administrative fees disclosure issues associated with the non-public investigation.

The strategy is team-managed by three experienced PMs: Chad Kilmer, Mark Leslie, and Dave Mitchell. They are supported by two associate PMs, Jim Karlis and Steve Livingston, and Research Analyst, Brian Early. Mr. Early previously served as the team's Research Associate but was promoted to Analyst during 2015. During 4Q 2018, he officially picked up formal sector coverage responsibilities and is currently covering the Utilities and Communication Services sectors. Among the portfolio managers, Dave Mitchell joined the firm as a small cap value PM in 1996. During his tenure, the PM team experienced the departure of Senior PM Glen Kleczka, who left to found Inview Capital in 2003, and the retirement of Cappy Price in 2005. The firm added Mark Leslie as a PM in July of 2005. Mr. Leslie was the lead PM for the First American Small Cap Value Fund at US Bancorp Asset Management where he also spent eight years serving as a mid-cap value co-PM and equity analyst. The third PM, Chad Kilmer, was added in 2006. Mr. Kilmer also joined the firm from US Bancorp where he managed the small cap value fund following Mr. Leslie's departure.

Overall, the firm has maintained a strong commitment to the Small/Mid Value investment team within an organization that is predominately known for its growth equity strategies. In addition, all five portfolio managers have been named partners, and the team has launched a Smid Value strategy in recent years which further demonstrate the firm's commitment to the value suite of products managed by this team. The current investment team has been very stable and operates in a collegial, team-based investment environment. The organization ranks highly given the boutique employee-owned structure, and the stability and quality of the investment team.

	Rating Decile	Weight
II. Information	1st	20%

The investment philosophy is fundamental bottom-up in orientation but incorporates a quantitative screen to narrow the universe and assist in idea generation. The initial universe of 3,000+ stocks is primarily comprised of US securities within the market cap range of the Russell 2000 Value Index. The team employs a proprietary 25-factor, sector neutral model to screen for stocks with low valuations and high fundamental scores. Each member of the team maintains sector-specific research responsibilities. The fundamental research process consists of two stages: the first step focuses on an initial review of financial characteristics, general attributes, company filings, research reports, conference call transcripts, etc.; while the second phase involves comprehensive due diligence with financial/competitive analysis, competitor/supplier/customer discussions, as well as management meetings, which function as a critical component in the investment decision making process. The investment team builds comprehensive, proprietary investment models for each company in an effort to understand the historic drivers of a company's returns, cash flow generation, and valuation dynamics in granular detail. Overall, the team's information gathering efforts are robust, both in terms of financial statement analysis as well as the vetting of company management teams.

	Rating Decile	Weight
III. Forecasting	1st	20%

III. Forecasting

The forecasting process is focused on identifying companies that possess strong cash flow generation, improving/sustainable ROIC, and shareholder-value focused managements. For this, the team first screens the universe on value and fundamental attributes employing a 25-factor, sector neutral model where 6-8 key factors are utilized per sector. The model is fairly static in terms of changes, and aims at identifying two things: low valuations and strong fundamentals. Some valuation metrics assessed include a company's ability to generate FCF, peer and historical comparisons, industry transaction comparisons, a forecast of financial results, downside risk assessment, and free cash flow ROIC analysis. Some characteristics assessed to identify strong fundamentals include superior cash flow generation, improving/sustainable ROIC, shareholder-value focused management, strict corporate governance, and a defensible competitive position. The team also highly values management meetings to gain a better sense of the quality of management and their vision for the company. Target prices are dynamic, employing 1- to 2-year horizons that are based on proprietary cash flow forecasts, historical valuations, and industry transactions when available. Stocks trading at a significant discount to the target price (approximately 30%) with attractive total return potential become buy candidates.

According to Wilshire attribution, stock selection has been the primary alpha driver for the strategy over long-term periods. The team has been successful at generating meaningful and consistent long term rolling 3- and 5-year alphas since the current portfolio management team has been in place. While the strategy has historically performed well across a wide variety of market environments, it tends to perform best on the downside and could struggle in lower quality rallies and in strong up markets. Given these expectations, performance during calendar year 2018, most notably the fourth quarter, was somewhat disappointing as stock selection weighed on results during a down market period. Overall, we continue to have confidence in this investment team. However, the ability to generate excess returns through stock selection should be monitored as the strategy has experienced softer performance over the trailing three-year period.

	Rating Decile	Weight
IV. Portfolio Construction	3rd	20%

IV. Portfolio Construction

The portfolio construction process is primarily fundamental bottom-up in orientation with adequate risk controls. The portfolios are diversified with 80-100 holdings with a typical allocation of two-thirds to quality companies at a discounted valuation with the balance invested in corporate transformation stories. Holdings in the portfolio are constantly reviewed to ensure that their expected return rankings, adjusted for conviction level and risk control, are maintained within the portfolio. The buy and sell decisions are team driven where the typical position is 0.75-1.75% and the top ten positions tend to be less than 20%. For risk control, the team focuses on both stock specific and sector specific metrics utilizing BARRA for analysis. The portfolio is relatively sector neutral where sector weights are constrained to 75%-125% of benchmark sector weight and the portfolio is fully invested at all times. Individual position sizes are capped at 3% of the portfolio. Securities will be sold if the investment thesis is no longer valid, or if there is a notable change in the company’s valuation/fundamentals. A stock whose market cap exceeds 2X the largest stock in the benchmark will also be liquidated. In general, the strategy should be expected to have modestly higher weighted average market cap exposure relative to the benchmark given the team’s conservative approach to liquidity and quality. Overall, the portfolio construction process is well articulated with an emphasis on both stock specific, portfolio level, and benchmark related risks. As a result, the portfolio construction process ranks above average.

William Blair

Small Cap Value

	Rating Decile	Weight
V. Implementation	3rd	10%

The firm has a centralized trading desk which consists of five traders dedicated to domestic equity trading. The team averages over 20 years of industry experience. Michael Thompson has served as Head of Domestic Equity Trading since he joined the firm in 1997. William Blair utilizes the LongView order management system, and the implementation process involves identifying natural liquidity where available to mitigate any market impact from transactions. The traders make use of "third market" and electronic trading systems such as Instinet and LiquidNet where applicable with ECN usage typically accounting for a significant portion of the trading volume. The firm's trading data is reviewed by the Brokerage Allocation Committee to ensure that every effort is being made to obtain best execution. In addition, the Linedata Compliance system is used for monitoring client and regulatory restrictions.

Annual turnover is expected to fall around the 50-100% range. Soft dollars are utilized by the firm including Commission Sharing Agreements (CSAs) which are commissions paid to proprietary and independent research providers. The firm boasts a strong commitment to information technology and will continue to make contributions in this area to keep abreast with the latest technology. The firm had closed off capacity for new separate accounts during 2017 when strategy assets reached $1.5B. However, the team has re-assessed market liquidity for the strategy and re-opened the product to new separate account investors during October 2018. Expected total capacity for the strategy is now estimated at $3-4B.

	Rating Decile	Weight
VI. Attribution	3rd	10%

William Blair analyzes various perspectives with respect to attribution including sector-based and market cap-based attribution analysis, primarily using FactSet. In addition, the firm performs internal quantitative factor-based performance attribution analysis and Barra multi-factor performance attribution analysis to understand where the team is taking bets and to understand the results of the bets taken. While the firm's knowledge of their risk factors and performance attribution is commendable, the feedback loop of this information back into the investment process appears to be fairly minimal.

	Rating									
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	A		B		C		D		F	

William Blair

Small Cap Value

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Manager Research

Credit Suisse Asset Management

Enhanced Commodities Index - BCOM Composite (Swap)

	Rating Decile	Weight
Summary	3rd	100%

The Credit Suisse Total Commodity Return strategy serves as a suitable option for investors seeking diversified, enhanced-like index exposure to the commodities space. The commodity team, led by seasoned investors Nelson Louie and Christopher Burton, implements a combination of mostly passive commodities exposure, gained through derivative securities, and a high quality short duration fixed income overlay that seeks to enhance alpha by a fractional amount. The portfolio is tightly risk-controlled with tracking error constrained to approximately 1-1.5%. The strategy emphasizes quantitative research and qualitative inputs to add value derived from the roll component of a commodity's total return.

In spite of the strong leadership at the helm of this product, the broader firm has experienced turnover and organizational change in recent years. In addition, new analysts have been added since 2009, leading to some concerns regarding the ongoing evolution and stability of this product. We acknowledge that stability has been achieved since 2011 but continue to express some caution on this commodities platform given the parent's company's grip on the asset management division.

	Rating Decile	Weight
I. Organization	3rd	20%
Firm	*4th*	*50%*
Team	*2nd*	*50%*

Credit Suisse is wholly-owned by Credit Suisse Group AG, a global financial services company headquartered in Zurich. Within the organization, there are three operating divisions - Asset Management, Private Banking, and Investment Banking. On July 1, 2009, Credit Suisse announced that it had successfully completed the sale of part of its Global Investors traditional asset management business to Aberdeen Asset Management. In addition to a base salary, employees are eligible for an annual discretionary Incentive Performance Bonus (IPB) based on firm and department profitability, individual performance/contribution, and the strategic needs of the firm. The IPB is awarded in the form of cash or cash and shares and vests over a multi-year period. A portion of the IPB cash-based award will earn a return equal to Credit Suisse's return on equity in profitable environments, but will have a mechanism which will adjust any unvested awards downward if a business area is unprofitable.

The Total Commodity Return product is led by Nelson Louie, Chris Burton and Timothy Boss and supported by six analysts dedicated to quantitative research and risk management. Bob Jain was recently appointed to Head of Alternative Investments to manage the business activites of the product. Nelson Louie and Chris Burton are responsible for the monthly rolling of futures contracts and identifying other structural inefficiencies in the commodities marketplace while Timothy Boss is the fixed income portfolio manager on this strategy. Nelson Louie rejoined the firm in 2010 after having left his post in 2007. Andrew Karsh, a former portfolio manager on the strategy, departed in 2010, having been with the team since 2007.

Credit Suisse, as an organization, has undergone a considerable turnover and restructuring of its asset management business in recent years. The team's leadership is seasoned, but several of the team's analysts have only been with the firm since 2009 with a couple joining in 2011. We acknowledge that stability has been achieved since 2009 but continue to express some caution on the commodities platform given the parent's company's grip on the asset management division.

Credit Suisse Asset Management

Enhanced Commodities Index - BCOM Composite (Swap)

	Rating Decile	Weight
II. Information	1st	20%

The Credit Suisse Total Commodity Return strategy involves pure replication of the index beta with a fixed income overlay. In addition, the team attempts to take advantage of some structural inefficiencies in the commodities market and thus has a research effort dedicating to identifying these characteristics. The manager seeks to identify sources of value add by emphasizing quantitative research on the roll yield component of the investment process. Weekly meetings of Portfolio Managers, Analysts and Traders are held to discuss individual economic and strategic viewpoints leading to the adoption of the group's consensus investment strategy. The team also leverages the firm's strategic relationship with Glencore, which provides physical market information through its commodities desk.

The team does not demonstrate an ability to perform the type of sophisticated in depth fixed income research that is found at many peer firms. However, the collateral portion of the commodities portfolio is intended to generate only a fraction of the overall portfolio's alpha and exhibits a high quality orientation consisting primarily of short duration Treasury and Agency fixed income securities. Overall, the team is focused on discovering unique sources of value add through its quantitative work and qualitative inputs to the investment process.

	Rating Decile	Weight
III. Forecasting	3rd	20%

The product's underlying commodities exposure is gained through single-commodity futures, index futures, total return swaps or commodity-linked structured notes. Futures are used predominantly as the team feels that significant value can be added through the monthly futures contract roll. In addition, the commodities team looks at other structural areas such as seasonal analysis to add additional alpha to the strategy without making explicit bets on one commodity versus another. This strategy is managed against the DJ-UBS Commodity Index, though the firm has managed the strategy against the GSCI for a longer time period. For the enhanced cash fixed income process, the team uses a combination of top-down and bottom-up inputs. Using macroeconomic conditions and market-related technical factors as a backdrop, the team determines duration decisions that are then applied to the total portfolio. Yield curve exposures are then distributed in an optimized fashion. Sector allocation is determined based on relative value assessment across the major sectors. The team forecasts expected excess returns from each sector over the ensuing six months based on the general market environment. Sector specialists then execute the purchase or sale of individual issues that fit the macro investment themes and also provide potentially high risk-adjusted returns versus the benchmark. The team focuses its fixed income effort on selecting short duration Treasuries and Agency debt.

Overall, the forecasting process is logical and slightly differentiated. The product has historically added incremental value from both, its commodities management efforts and its short duration fixed income overlay, and the team has undertaken significant research to take advantage of structural anomalies in the futures market.

	Rating Decile	Weight
IV. Portfolio Construction	1st	20%

Due to the index replication of the commodities index using futures and the very small bets taken by the short duration fixed income team, the portfolio construction score ranks well because the tracking error is managed effectively and relatively low given the fund's objective. The firm has limited disclosure of some of the key risk management processes used in the fixed income management portion of the portfolio, mitigating the firm's portfolio construction score. The team does use an optimization process to ensure the portfolio is efficiently positioned versus the benchmark, and they also utilize proprietary risk models to track principal at risk and to also assess forward-looking tracking error. Overall, the portfolio construction effort remains solid due to disciplined replication of the commodities portion of the strategy and adherence to targeted tracking error constraint.

Credit Suisse Asset Management

Enhanced Commodities Index - BCOM Composite (Swap)

	Rating Decile	Weight
V. Implementation	3rd	10%

Individual sector specialists at Credit Suisse execute trades based on opportunities they are observing in the marketplace. Five members of the team are directly involved in trading positions for the portfolio though ultimate decision-making resides with Louis Nelson and Chris Burton. This hands-on approach adds value relative to more silo-oriented functional approaches. Trading is segmented between commodities and collateral portfolios. Electronic futures trades are typically placed through the RediPlus trading system. Charles River is also leveraged as an order management system for their trading execution. Most of the trades are automated though in some cases manual engagement is necessary. Advent Geneva is utilized as the team's portfolio accounting system and for performance measurement purposes. Trading costs are not explicitly measured though the team will endeavor to achieve best execution as there is ample transparency in trading the derivative contracts for the strategy. The team estimates capacity to be near $20 bn for the commodities platform.

	Rating Decile	Weight
VI. Attribution	3rd	10%

The team reviews performance attribution on a daily basis to assess the various sources of portfolio performance relative to the benchmark and monitor the portfolio's risk exposures. The team relies on CSAM's Risk Management team to provide risk appraisals and inform the process. Attribution analysis is mainly utilized to track the success of portfolio decision-making and provide performance reporting to clients.

	Rating									
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	A		B		C		D		F	

Credit Suisse Asset Management

Enhanced Commodities Index - BCOM Composite (Swap)

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FIRM FOUNDED: 1935

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Via CS' integrated structure, CSAM is affiliated with CS' Investment Banking and Private Banking divisions. Externally CSAM has joint ventures/strategic alliances with carefully chosen asset managers.

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Manager Research

Dimensional Fund Advisors

World ex US Small Cap Strategy

Summary

	Rating Decile	Weight
Summary	2nd	100%

Dimensional Fund Advisors offers an attractive World ex-US Small Cap strategy for investors seeking to gain an index-like exposure to the developed international small cap core equity space. The investment team quantitatively engineers its portfolios using sound fundamental rationales that are based on academic research. The investment process is team-driven and has been very stable since its inception. Any adjustments to the security selection model are carefully researched and thoroughly vetted by the firm's investment committee prior to implementation. This systematic approach also prevents impulsive decision-making as it relates changes in the investment process. Measured over a full market cycle, the strategy has been successful in adding value over the MSCI World ex-US Small Cap Index; however, performance is typically in-line with the index over shorter time periods. The result of the process is a very diversified, low turnover portfolio that exhibits a slight value tilt and a small cap bias. The firm continues to demonstrate an impressive ability to add value through its patient trading process, and the organization is well-respected as a privately held company of many talented investors. The strategy is a very low cost investment option for clients to gain exposure to the international small cap equity markets.

	Rating Decile	Weight
I. Organization	1st	20%
Firm	*1st*	*50%*
Team	*1st*	*50%*

Founded in 1981, Dimensional Fund Advisors, Inc. (DFA) is a privately held company primarily owned by employees and directors. The firm is managed on a day-to-day basis by Co-CEOs Dave Butler and Gerard O'Reilly, both of whom were recently appointed to the Co-CEO position. Mr. Butler took over the role from David Booth in February 2017, while Mr. O'Reilly replaced Eduardo Repetto after his unexpected departure in September 2017. Mr. O'Reilly, who was also Co-CIO with Mr. Repetto, will continue operating as the firm's sole CIO and Mr. Booth, a co-founder of the firm, remains at DFA as Executive Chairman.

The firm moved its headquarters from Santa Monica, CA to Austin, TX in January 2009 and has investment operations in Austin, Charlotte, London, Santa Monica, Singapore, Sydney, and Tokyo. As of July 2017, the firm had roughly $490 billion in assets under management, including significant portions in domestic equity, international equity, emerging markets equity, and domestic fixed income. Compensation is tied to the financial success of the firm and performance, and it includes a base salary, semiannual bonus, and participation in the firm's long-term incentive plan (LTIP) that allows qualified employees the option of purchasing equity after a three year vesting period of phantom equity units.

The World ex-US Small Cap strategy is managed by the Investment Committee, the International Portfolio Managers, and the Investment Policy Committee that meets on a quarterly basis. The Investment Committee has 10 members comprised of senior management and the senior portfolio manager of the firm's various investment strategies. Arun Keswani, who is based in the firm's Austin office, is the portfolio manager primarily responsible for this strategy from a reporting standpoint. Despite this responsibility, it is more appropriate to reference the entire portfolio management team as responsible for the strategy as their role is to provide for the daily oversight of all portfolios. This team consists of over 30 PMs and is led by Joe Chi and Jed Fogdall who serve as Co-Heads of Portfolio Management. Both have been with DFA for over 10 years.

Historically, the firm has had very little employee turnover. However, it's worth noting that Henry Gray, Head of Equity Trading and member of the Investment Committee, departed the firm in March 2017 to pursue a career in teaching. Mr. Gray had been with the firm since 1995, and his position was quickly filled by Ryan Wiley, previously Head of Americas Trading, and John Romiza, previously Head of International Trading, as co-Heads of Global Equity Trading. In these rare instances of departures, the team-driven investment approach and the quantitative investment process protects the portfolio from adverse outcomes as the portfolio is not dependent on a single individual. Overall, the organization rates highly due to independence, the quality of the investment professionals, and the relative stability of the senior professionals.

Dimensional Fund Advisors

World ex US Small Cap Strategy

	Rating Decile	Weight
II. Information	3rd	20%

Information gathering on securities covers over 15,000 international stocks, and the firm analyzes data from a variety of sources including, but not limited to IDC, Bloomberg, Instinet Analytics, Compustat, OneSource, and Bridge Information systems. Specifically, the firm analyzes market capitalization, book-to-market value, and a number of company-, price discovery-, and liquidity-specific filters. In addition, qualitative filters are employed to screen out companies that are government held or have a tightly held ownership structure, companies in extreme financial distress, are REITs or highly regulated utilities, or have recently had an IPO. Information is gathered through relationships with local brokers, electronic data sources, country visits, and meetings with heads of the local exchanges. The investment committee reviews information gathered during country visits to assess country selection criteria such as quality of the legal system, treatment of foreign ownership, financial statement accounting rules, and the settlement system. These trips are used for country allocation decisions, including identifying countries that will be added to or removed from the fund's investable universe.

Ongoing information gathering is also performed around the dimensions of expected returns (factors) targeted in the process. Specifically, these factors are equity premium, market cap, value, and profitability. This research is performed both internally by researchers and externally by contracted academics, with the overall goal of finding dimensions that are sensible, persistent, present in all markets, robust in all markets (present in all securities), and cost-effective to capture.

While DFA may not have superior security specific information like bottom-up managers, they do perform significant research on the factors behind the investment thesis. New factors for investment have an extremely high hurdle to overcome before being implemented, with only the profitability dimension being introduced as a new factor in recent years. For these reasons, the strategy rates above-average in information gathering.

	Rating Decile	Weight
III. Forecasting	4th	20%

The World ex-US Small Cap strategy employs a clear and disciplined forecasting approach. The process begins with the size premium by targeting small companies in the 22 developed market-only countries approved by the firm. Size is defined as stocks in the lowest 12.5% of market cap by country, with at least a $50 million minimum capitalization to avoid pure micro caps. The next step is to target the value premium by ranking stocks in each country by relative based on price-to-book ratio. Using these rankings, the profitability factor excludes stocks with the lowest profitability that are trading at the highest relative prices. Profitability is defined as the operating income before depreciation and amortization, minus interest expense, scaled by book value (EBTDA/BV). Throughout the process, exclusion rules prevent investments in REITs, investment companies, and highly regulated utilities. The fund will also not invest in most recent IPOs, merger or acquisition targets, and companies in distress or bankruptcy. Trading is halted in these securities as the team researches the situation and makes an investment decision.

The investment process is constantly reviewed for enhancements or new dimensions of expected returns to target. In 2010, for example, the firm introduced a momentum factor. Looking at midterm trends (from 1-2 months to 6-12 months) DFA research found that stocks with a large positive risk-adjusted return would continue to have positive returns in the next period. This factor was then implemented when making buy and sell decisions, but conversely, the firm is also willing to discontinue using a factor when they believe it will no longer lead to long-term excess returns.

While the process is designed to target the firm's dimensions of expected returns and not mimic a benchmark, the process results in a very diversified portfolio with a performance pattern very similar to that of the MSCI World ex USA Small Cap Index over short timeframes. Over the long-term, the process has been successful at marginally adding value, and given the disciplined nature of the approach, is expected to continue to add value while stocks with the factors targeted for investment - size, value, and profitability - provide alpha. For these reasons, the strategy rates slightly above-average in forecasting for its consistency, but not as high as peers who have the ability to add more alpha.

Dimensional Fund Advisors

World ex US Small Cap Strategy

	Rating Decile	Weight
IV. Portfolio Construction	3rd	20%

The World ex-US Small Cap strategy typically holds between 4,000 and 5,000 securities. While most commonly benchmarked to the MSCI World ex-US Small Cap Index, the strategy is not managed to any specific benchmark and does not target a specific tracking error. However, historical tracking error has been low and has ranged between 1-3% per year. The strategy's country allocations are driven by the size of the lowest 12.5% target weight set on the market cap (free-float adjusted) of each country. Individual security weights are limited to 5% of the portfolio at the time of purchase and sector weights are a byproduct of security selection, subject to a +/-10% relative weight to the benchmark. By rule, the strategy does not include REITs in its investible universe so the portfolio will always be underweight this sector relative to the benchmark. The strategy will be at least 99% invested at all times, keeping cash to a minimum.

In terms of risk management, the strategy excludes some of the smaller, less-liquid countries in the benchmark, as well as those that do not meet the investment committee's criteria. When building positions in countries that have increased risks or that DFA previously deemed un-investable, the fund will invest in ADRs, GDRs, and foreign shares, but not local market shares. This provides access to the market with a reduced exposure to risks specific to those countries. On the other hand, fundamental risks outside of the specifically targeted dimensions of expected return, do not appear to play an active role in portfolio construction. While this risk is mitigated by constructing a highly diversified portfolio, many fundamental factor exposures are not considered when adding to or removing names from the portfolio.

Overall, DFA's portfolio construction efforts are a manifestation of the investment process. Subjective decisions such as individual positioning and weighting are removed from the process and instead are a summation of all of the securities targeted for investment. As a result, portfolio construction rates above-average relative to peers for its ability to produce a portfolio that consistently exhibits the process employed.

	Rating Decile	Weight
V. Implementation	1st	10%

The trading platform was developed in-house and is an integral part of the firm's investment process. The firm's proprietary trading system was designed specifically for its investment strategies and all trades are entered through an integrated, highly customized Order Management System based on the Charles River Investment Management System. Execution Management Systems is used for implementation and almost 100% of trades are executed via direct market access by a desk located in the region of the security's domicile. To do so, DFA has 24-hour trading capabilities through its global offices and maintains a cross-training program so that traders are able to operate in markets outside of their primary coverage when needed. This helps provide more seamless coverage in the situations ranging from heavy trading volume to contingency plans for disaster recovery. A virtual desk system has been put in place that allows trade instructions to be placed either with a specific person or to the entire desk where it can be assigned based on capacity. Team members can also use this system to remotely access their workstation.

Trade instructions and execution parameters are sent to the traders by the portfolio managers. These trades arrive daily as a list of potential securities to buy/sell based on their dimensions of expected return or that meet specific account objectives necessary (i.e. rebalances, cash build up for redemption, etc.). Traders are then able to work through this list to add to/sell from the portfolio those securities where they can provide the best execution for clients. Trading costs are extremely important to the firm, and through the traders' ability to "sit on an order" until given a suitable price, third party analysis has shown that DFA has been able to add considerable value for clients from trading and best execution practices. In recent years, as a result of the firm's research, the firm implemented a momentum screen that delays a purchase (sell) of a stock if it has experienced negative (positive) price momentum over the recent months. Turnover in the portfolio has historically been less than 20% and soft dollar relationships are not used at the firm.

Implementation practices at the firm are regarded as some of the best in the industry. Aside from the obvious benefit from this fact, strong implementation is particularly meaningful for a product in a relatively less-liquid space such as international small cap equity.

	Rating Decile	Weight
VI. Attribution	1st	10%

DFA has sufficient systems in place to monitor portfolio performance attribution. The firm employs a proprietary six-factor model which identifies company size, value, and beta exposure in four markets. Each strategy has a portfolio advocate that regularly reviews the portfolios to ensure they are in compliance. The firm also has additional systems in place provided by external vendors to measure performance and multi-factor attribution. The addition of the momentum screen indicates that they are using these tools to identify areas of potential improvement. Due to the constant review of the investment process, the strategy rates highly in terms of attribution.

	Rating									
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	A		B		C		D		F	

Dimensional Fund Advisors

World ex US Small Cap Strategy

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Manager Research

Dimensional Fund Advisors

US Large Cap Value Strategy

Summary

Rating Decile	Weight
2nd	100%

DFA US Large Cap Value is suitable for clients seeking structured and consistent value exposure to the large cap universe for a low fee base. The investment team is very experienced and is supported by some of the top academic researchers in the country. The investment process is top down oriented and focuses on asset class exposure. The team believes that focusing on value and size by eliminating stocks from the universe that don't meet their requirements should product superior results over holding the entire universe. The resulting portfolios are highly diversified and can be relatively active. In addition, the team has impressive trading efforts that is key in adding additional alpha. Overall, the strategy follows a very disciplined approach and has generated consistent and predictable results.

	Rating Decile	Weight
I. Organization	1st	20%
Firm	*1st*	*50%*
Team	*1st*	*50%*

Founded in 1981, Dimensional Fund Advisors, Inc. (DFA) is a privately held company primarily owned by employees and directors. The firm is managed on a day-to-day basis by Co-CEOs Dave Butler and Gerard O'Reilly, both of whom were recently appointed to the Co-CEO position. Mr. Butler took over the role from David Booth in February 2017, while Mr. O'Reilly replaced Eduardo Repetto after his unexpected departure in September 2017. Mr. O'Reilly, who was also Co-CIO with Mr. Repetto, will continue operating as the firm's sole CIO and Mr. Booth, a co-founder of the firm, remains at DFA as Executive Chairman.

The firm moved its headquarters from Santa Monica, CA to Austin, TX in January 2009 and has investment operations in Austin, Charlotte, London, Santa Monica, Singapore, Sydney, and Tokyo. As of the end of 2017, the firm had roughly $570 billion in assets under management, including significant portions in domestic equity, international equity, emerging markets equity, and domestic fixed income. Compensation is tied to the financial success of the firm and performance, and it includes a base salary, semiannual bonus, and participation in the firm's long-term incentive plan (LTIP) that allows qualified employees the option of purchasing equity after a three year vesting period of phantom equity units.

Investment strategies are team managed by the firm's eleven member Investment Committee, Investment Policy Committee, and portfolio managers, who meet on a quarterly basis at a minimum. Joe Chi and Jed Fogdall are the co-heads of the Portfolio Management group, taking over for Stephen Clark after he replaced Dave Schneider as head of the firm's North American institutional Group in 2012.

Low historical employee attrition combined with a team investment approach and quantitative process protects the portfolio if they were to have a period of increased turnover. Overall, the investment team has experienced reasonable growth and exhibited above average stability during the past several years. The firm receives a well above average organizational score due to the ownership structure, as well as the stability and quality of the investment professionals.

Dimensional Fund Advisors

US Large Cap Value Strategy

	Rating Decile	Weight
II. Information	4th	20%

DFA's research covers thousands of securities around the globe, and the firm analyzes data from a variety of sources including, but not limited to, IDC, Bloomberg, Instinet Analytics, Compustat, OneSource, and Bridge Information systems. Specifically, the firm analyzes market capitalization, book-to-market value, direct profitability, and a number of company specific filters, price discovery filters, and liquidity filters. In addition, qualitative filters are employed to screen out companies that are government held or have a tightly held ownership structure, companies in extreme financial distress, and investment companies. DFA works closely with several leading economists, including Eugene Fama, Ken French, and Bob Merton, in an effort to remain informed of the latest theories and investment research. Recent academic research on profitability, which has been replicated by DFA, shows that high profitability firms have higher average returns than lower profitability firms, leading DFA to add direct profitability as a fourth dimension of returns for its equity portfolios.

In addition to the impressive breadth of information DFA gathers on its investable universe, the continuous research on the factors underlying the firm's investment thesis is also valuable. While the firm's depth of knowledge about individual companies is not as impressive as that of its peers, the amount and type of information gathered by the team is sufficient to execute its investment strategy. As a result, the firm receives an average information score.

	Rating Decile	Weight
III. Forecasting	3rd	20%

DFA employs a clear and disciplined forecasting approach. The firm begins by screening companies for market capitalization constraints. The strategy invests in companies with market capitalizations in approximately the top 90% of the investment universe which is defined as the aggregate of the NYSE, AMEX and NASDAQ NMS firms. Companies meeting the market capitalization constraints are then screened for valuation, primarily the company's book-to-market value as well as additional factors such as price-to-cash flow or price-to-earnings. The strategy seeks to invest in securities within the upper 20% of the investment universe sorted by book-to-market values. A number of filters are then applied to each eligible security. The firm's newest research regarding expected profitability is applied using a graded exclusion rule, where stocks with the lowest direct profitability (EBITDA minus interest expense, scaled by book equity) are excluded from the portfolio. By design, a lower number of exclusions are made at the lowest end of the relative price range to ensure the strategy preserves a somewhat deeper value focus. Research performed by DFA has also identified that extreme small cap growth stocks, defined as the lowest 25% by BtM ratio and the lowest 25% by either E/P or CF/P ratio, are a source of negative alpha. A screen has recently been added to remove these stocks from all domestic portfolios.

The firm has been successful in adding alpha through this forecasting approach, and as a result, a significant portion of the strategy's alpha appears to be the result of a consistent overweight to smaller caps and a value style bias. While this is the objective of the investment strategy, it is susceptible to periods of underperformance when smaller caps and value are out of favor. Due to the unique nature of the model and its historical ability to consistently produce alpha, Wilshire views the forecasting process as above average.

	Rating Decile	Weight
IV. Portfolio Construction	3rd	20%

The Large Cap Value portfolio holds approximately 200-250 securities. DFA's portfolio construction process includes market capitalization criteria, value considerations, expected profitability, and a qualitative screening process. Securities that do not meet quantitative and qualitative screens are excluded from the eligible universe. Security weights are generally based on free-float adjusted market cap, but may also be adjusted based on liquidity and/or momentum. The team also incorporates price momentum tests, generally delaying buys or underweighting securities with downward momentum.

The strategy is not managed to any specific benchmark and thus, the firm does not have a specific targeted tracking error. However, the number of holdings serves to diversify the portfolio and the firm typically maintains a moderate tracking error against the benchmark. Overall, the construction of the portfolio is geared towards diversification to minimize risk while maintaining a strict sell discipline to keep turnover low. The strategy receives a slightly above average rating with respect to portfolio construction.

Dimensional Fund Advisors

US Large Cap Value Strategy

	Rating Decile	Weight
V. Implementation	1st	10%

The firm's trading platform was developed in-house and is an integral part of the investment process. The system was designed specifically for its investment strategies, and incorporates extensive compliance procedures, including eligibility, capacity, and trading entry. As this platform has been developed, the use of electronic trading has increased from less than 50% of all trades in 2006 to more than 95% of trades in 2014. This platform allows for direct market access through custom algorithms as opposed to traditional brokerage. DFA has 24 hour trading capability through its global offices in Austin, Santa Monica, London, and Sydney. The firm has recently started a cross-training program so that traders are able to operate in markets outside of their primary coverage when needed. This helps provide more seamless coverage in the situations ranging from heavy trading volume in any single market to contingency plans for disaster recovery. A virtual desk system has been put in place that allows trade instructions to be placed either with a specific person or to the entire desk where it can be assigned out based on capacity. Team members can also use this system to remotely access their workstation.

DFA has also built out a highly customized version of Charles River since adopting the tool in 2007. Continuing efforts are being made to increase the quantitative aspect of the trading process. DFA reviews the execution of every trade to evaluate effectiveness and look for areas of future improvement. In addition, the firm utilizes a variety of cost evaluation systems and independent cost-review consultants. The firm decided to wind down its soft dollar program by ceasing to accrue new credits after December 31, 2013. Any unused soft dollar credits will be used in a practical manner after this date.

DFA’s implementation practices remain one the strongest and most distinguishing aspects of the firm’s investment products. According to third party analysis, the firm is highly successful in adding value through its patient and price-conscious trading efforts. This, combined with a substantial commitment to technological trading resources and continued effort to refine/improve the trading practices, results in an extremely strong implementation score.

	Rating Decile	Weight
VI. Attribution	1st	10%

DFA has sufficient systems in place to monitor portfolio performance attribution. The firm employs a proprietary multi-factor model which performs attribution along multiple areas. Each strategy has a portfolio advocate that regularly reviews the portfolios to ensure they are in compliance. The firm also has additional systems in place provided by external vendors to measure performance and multi-factor attribution. The addition of the momentum screen indicates that they are using these tools to identify areas of potential improvement.

	Rating									
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	A		B		C		D		F	

Dimensional Fund Advisors

US Large Cap Value Strategy

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Manager Research

Dimensional Fund Advisors

US Real Estate Strategy

Summary

Rating Decile	Weight
3rd	100%

DFA's U.S. Real Estate strategy offers a rules-based approach to listed real estate investing in an effort to provide index-like exposure to the asset class. Similar to other strategies at the firm, the investment team quantitatively engineers the portfolio using sound fundamental rationales that are based on academic research. The investment process is team-driven and has been very stable since its inception. Securities such as REOCs and mortgage, prison, and timber REITs, to name a few, are screened out of the investable universe in an effort to provide only core real estate exposure. Any other adjustments to the security selection model are carefully researched and thoroughly vetted by the firm's Investment Committee prior to implementation. This systematic approach also prevents impulsive decision-making as it relates to changes in the investment process. Measured over a full market cycle, the strategy has been successful in adding value over the Dow Jones U.S. Select REIT Index; however, performance is typically in-line with the index over shorter time periods. The result of the process is a diversified, very low turnover portfolio that exhibits value and small cap biases. The firm continues to demonstrate an impressive ability to add value through its patient trading process, and the organization is well-respected as a privately held company of many talented investors. The strategy is a very low cost investment option for clients to gain exposure to the U.S. listed real estate asset class.

	Rating Decile	Weight
I. Organization	3rd	20%
Firm	*1st*	*50%*
Team	*5th*	*50%*

Founded in 1981, Dimensional Fund Advisors, Inc. (DFA) is a privately held company primarily owned by employees and directors. The firm is managed on a day-to-day basis by Co-CEOs Dave Butler and Gerard O'Reilly, both of whom were recently appointed to the Co-CEO position. Mr. Butler took over the role from David Booth in February 2017, while Mr. O'Reilly replaced Eduardo Repetto after his unexpected departure in September 2017. Mr. O'Reilly, who was also Co-CIO with Mr. Repetto, will continue operating as the firm's sole CIO and Mr. Booth, a co-founder of the firm, remains at DFA as Executive Chairman.

The firm moved its headquarters from Santa Monica, CA to Austin, TX in January 2009 and has investment operations in Austin, Charlotte, London, Santa Monica, Singapore, Sydney, and Tokyo. As of the end of 2018, the firm had roughly $500 billion in assets under management, including significant portions in domestic equity, international equity, emerging markets equity, and domestic fixed income. Compensation is tied to the financial success of the firm and performance, and it includes a base salary, semiannual bonus, and participation in the firm's long-term incentive plan (LTIP) that allows qualified employees the option of purchasing equity after a three year vesting period of phantom equity units.

The U.S. Real Estate strategy is managed by the Investment Committee that oversees the investment process and any enhancements, the Portfolio Management team that implements the portfolio daily, and the Investment Policy Committee that meets on a quarterly basis. The Investment Committee has roughly 10 members comprised of senior management and the senior portfolio managers of the firm's various investment strategies. The Portfolio Management team is responsible for the daily oversight and implementation of all portfolios. This team consists of over 30 PMs and is led by Joe Chi and Jed Fogdall who serve as Co-Heads of Portfolio Management. Both individuals have been with DFA for over 10 years.

Historically, the firm has had very little employee turnover. However, it's worth noting that Henry Gray, Head of Equity Trading and member of the Investment Committee, departed the firm in March 2017 to pursue a career in teaching. Mr. Gray had been with the firm since 1995, and his position was quickly filled by Ryan Wiley, previously Head of Americas Trading, and John Romiza, previously Head of International Trading, as co-Heads of Global Equity Trading. In addition, Eduardo Repetto, Co-CEO and Co-CIO, unexpectedly announced his departure from the firm in September 2017. Mr. Repetto had been with the firm since 2000 and was instrumental in the strategies given his role as Co-CIO and member of the Investment Committee. Gerard O'Reilly, another long-term employee of the firm who was Co-CIO alongside Mr. Repetto, will be functioning as the sole CIO going forward. Despite these departures, the team-driven investment approach and the quantitative investment process protects the portfolio from personnel losses as the portfolio is not dependent on a single individual.

Overall, the organization rates highly due to its independence, the quality of the investment professionals, and the relative stability of the senior professionals; however, DFA's team receives an average rating due to not having the same level of real estate-specific experience and backgrounds relative to peers in the asset class. This is mainly due to the academic nature of the firm's investment approach, but nonetheless, it is a differentiator relative to peers.

Dimensional Fund Advisors

US Real Estate Strategy

	Rating Decile	Weight
II. Information	7th	20%

The investment approach is structured to provide core exposure through a diversified portfolio of U.S. REITs. As a result, information gathering efforts are focused on most publicly traded U.S. REITs by analyzing data from a variety of sources including, but not limited to IDC, Bloomberg, Instinet Analytics, Compustat, OneSource, and Bridge Information systems. The research tasks are divided between the strategy, investment, and analytics research groups at the firm, with the analytics group being responsible for processing the vast quantity of securities data gathered. This group monitors and tests data as it feeds into investment systems by checking for outlier values and comparing data from multiple sources. After review, research from external data sources is updated to a proprietary database that covers over 40,000 securities across the entire equity universe. This data is used to assign eligibility for purchase and for asset class categorization across all products at the firm.

DFA excels at gathering publicly available security information and performing significant research on the factors behind their investment thesis. New factors for investment have an extremely high hurdle to overcome before being implemented, with only the profitability dimension being introduced as a new factor in recent years. That being said, real estate is a unique asset class that requires different inputs, analysis, and understanding relevant to traditional equities. Unlike most peers, DFA's information gathering efforts do not include property tours, meeting with management, or analyzing REITs through the lens of a typical real estate investor, to name a few, placing the firm at an informational disadvantage. For this reason, information gathering efforts at the firm receive a low rating relative to real estate peers.

	Rating Decile	Weight
III. Forecasting	3rd	20%

The U.S. Real Estate strategy employs a clear and disciplined rules-based forecasting approach that's based on the philosophy that current market prices reflect all available information about security fundamental values and expectations. Under this mindset, valuations and time horizons are not considered during stock selection as the portfolio is designed to hold securities for a long period of time while providing a highly diversified exposure.

The process begins by screening out those securities that DFA does not consider to be core real estate, such as REOCs, mortgage REITs, and prison REITs, and by excluding companies undergoing significant events, such as a merger or acquisition, recent IPO, or bankruptcy. From the remaining universe, the portfolio aims to gain exposure to each company through a rules-based approach. The strategy ranks all stocks on market capitalization and invests the portfolio with targeted security weights based on free-float adjusted market capitalization. The minimum market cap required for inclusion is $10 million, a much lower threshold than the benchmark and peers, which can be a source of additional return for the portfolio. Traditional fundamental research is not performed on individual companies in the stock selection decision.

The forecasting approach achieves a diversified portfolio by sector and market cap for clients that has performed strongly relative to peers and the Dow Jones U.S. Select REIT Index over time. By basing selection on market capitalization and ignoring many of the common top-down and bottom-up inputs used by peers in investment processes, the strategy doesn't face many of the typical headwinds to returns such as styles being in/out of favor, performance drags from sector tilts in the portfolio, and so on. While the strategy may underperform peers when non-traditional real estate stocks rally that are excluded from the portfolio, the portfolio is expected to largely perform in-line with the index over the long term with potential opportunities for excess returns in small cap-driven markets. Forecasting receives an above-average rating.

	Rating									
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	A		B		C		D		F	

Dimensional Fund Advisors

US Real Estate Strategy

	Rating Decile	Weight
IV. Portfolio Construction	5th	20%

Given the characteristics of the securities targeted in the process, the most appropriate benchmark for the U.S. Real Estate strategy is the Dow Jones U.S. Select REIT Index. Over a full cycle, the team aims for approximately 0.3-0.5% of outperformance relative to this benchmark. Tracking error is not specifically targeted, but it has historically been low between 1-2% over the same time frame.

Exposures to individual securities and sectors are based on the free float adjusted market capitalization of the eligible stocks in the universe. This results in a portfolio of roughly 120-150 stocks up and down the capitalization spectrum, leading to a more diversified portfolio than most peers. Companies with at least $10 million in market capitalization are eligible for inclusion. Sector exposures are typically within +/-5% of the benchmark and individual securities are capped at 10% of the strategy at time of purchase. The portfolio is rebalanced continually as flows go into or out of the strategy, buying underweights and selling overweights. Cash is typically between 0-2% as a result of these flows.

While the firm does employ several risk oversight groups, such as the Risk Committee, Investment Committee, and Investment Research Committee, risk management is lacking relative to peers because it is based on only two concepts: process adherence and strategy diversification. The team believes its rules-based approach helps to mitigate risk because clients will always know what to expect from the strategy, which is a market cap weighted exposure to core listed real estate. On a more fundamental level, risk is managed through the highly diversified portfolio that helps to mitigate stock specific risk. While both of these risk management claims are true, they are outcomes of the process itself and are not specific actions taken by the team to manage risk as are performed by most peers. DFA's portfolio construction efforts are viewed favorably for their ability to produce a portfolio that consistently exhibits the process employed, but dedicated risk management systems, tools, and processes are lacking. Portfolio construction receives an average rating.

	Rating Decile	Weight
V. Implementation	1st	10%

The Global Equity Trading Team is headed by Ryan Wiley who oversees the approximately 20-person trading team. This team is located in offices in Santa Monica, Austin, Charlotte, London, Sydney, and Singapore, with the U.S.-based offices responsible for trading this product.

The firm's trading platform was developed in-house and is an integral part of the investment process. The proprietary trading system was designed specifically for DFA's investment strategies and all trades are entered through an integrated, highly customized Order Management System based on the Charles River Investment Management System. A virtual desk system has been put in place that allows trade instructions to be placed either with a specific person or to the entire desk where it can be assigned based on trading capacity. Team members can also use this system to remotely access their workstation.

Trade instructions and execution parameters are sent to the traders by the portfolio managers. These trades arrive daily as a list of potential securities to buy/sell based on changes in market capitalization and flows. Traders are then able to work through this list to add to/sell from the portfolio those securities where they can provide the best execution for clients. Trading costs are extremely important to the firm, and through the traders' ability to "sit on an order" until given a suitable price, third party analysis has shown that DFA has been able to add considerable value for clients from trading and best execution practices. In recent years, as a result of the firm's research, the firm implemented a momentum screen that delays a purchase (sell) of a stock if it has experienced negative (positive) price momentum over the recent months. Turnover in the portfolio has historically been less than 5% and soft dollar relationships are not used at the firm. While the assets in the strategy are higher than that of most peers, our concerns are lessened by the index-like, low turnover approach of the process.

Implementation practices at the firm are regarded as some of the best in the industry. Aside from the obvious benefit from this fact, strong implementation is particularly meaningful for a product in a relatively small asset class such as real estate. Implementation efforts of the firm receive a very high rating.

Dimensional Fund Advisors

US Real Estate Strategy

	Rating Decile	Weight
VI. Attribution	1st	10%

Performance attribution is calculated monthly using an internally developed system that breaks down attribution on various metrics. The team utilizes the attribution to ensure the investment approach is being implemented properly, to understand sources of value add, and for long term strategy enhancement. Additionally, this attribution allows investment professionals to monitor risk factor exposures and portfolio performance across market segments. Each strategy has a portfolio advocate that regularly reviews the portfolios to ensure they are in compliance. The firm also has additional systems in place provided by external vendors to measure performance and multi-factor attribution. Due to the focus on and constant review of the investment process, the strategy rates highly in terms of attribution.

	Rating									
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	A		B		C		D		F	

Dimensional Fund Advisors

US Real Estate Strategy

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Manager Research

Fidelity Institutional Asset Management (FIAM)

Broad Market Duration

Summary

	Rating Decile	Weight
Summary	2nd	100%

FIAM Broad Market Duration attempts to outpace the Bloomberg Barclays US Aggregate Bond Index by 50-75 basis points per annum, with 100-150 basis points of ex-ante tracking error. The firm remains relatively duration neutral, limiting its duration exposure to +/- 10% of the benchmark. The product boasts one of the deepest and most talented research groups in the industry, generating qualitative and quantitative research. It also boasts a strong portfolio construction process that effectively manages its risk exposures while maintaining a bottom up framework. The overall exposure of the product makes it appropriate in a stand-alone mandate or as an anchor in a core satellite approach.

	Rating Decile	Weight
I. Organization	3rd	20%
Firm	*3rd*	*50%*
Team	*3rd*	*50%*

Fidelity Global Advisors is a wholly owned subsidiary of Fidelity Management & Research Company (FMR Co.) and was spun off to become the institutional asset management division of Fidelity. Fidelity works closely with Fidelity and sub-advises many of the Fidelity mutual funds. FMR Corp is fully owned by its active employees (51%) and the Johnson family (49%).

Through its parent FMR, Fidelity has material relationships with its broker-dealer affiliates and may make transactions on behalf of certain clients through such affiliated broker-dealers.

August 2011, Boyce Greer, Vice Chairman of Fidelity and Head of Institutional Investments for Fidelity passed away. Charlie Morrison was appointed as Vice Chairman and President of the Fixed Income division. Derek Young was also named Vice Chairman of Fidelity and President of Fidelity's Asset Allocation division. In October 2011, Doug Moore was promoted to CFO of Fidelity, replacing Bill Dailey who moved to become CFO of Fidelity. In October 2013, Fidelity announced a series of changes across the equity division, including the appointment of Pam Holding as CIO. Ron O'Hanley, Chairman of Fidelity, parted ways with the firm in early 2014. CEO Mike Jones left the firm at the end of 2014 and replaced by Jeff Lagarce. In January 2015, Bob Brown was named Head of Institutional Fixed Income, a new role reporting to President of Fidelity Fixed Income Nancy Prior. Recent changes have happened as part of the last steps in a long term succession planning appointment of Abigail Johnson as CEO of Fidelity Investments.

Fidelity employees are compensated through base salary, bonus, profit sharing, and equity ownership. Investment professional’s compensation is largely based on investment recommendations and performance of the funds they work on.

Broad Market Duration is led by Portfolio Managers Ford O’Neil, Jeff Moore, Celso Munoz, and Michael Plage. Pramod Atluri left portfolio management team and the firm in July 2015 and George Fischer took on a new role within the firm in 2012. The PMs are supported by a large team of credit and quantitative analysts, as well as a large team of portfolio managers. In the past, turnover at the firm was a substantial issue with droves of analysts leaving for other opportunities over the years. However, in recent years, turnover has subsided as the firm began to develop a culture that encourages a career analyst path, versus the prior mentality of progressing to portfolio management. We like the effort being made by the firm to mitigate analyst turnover and hope this trend will continue. As a result, the team ranks above average.

Fidelity Institutional Asset Management (FIAM)

Broad Market Duration

	Rating Decile	Weight
II. Information	1st	20%

FIAM has extensive resources dedicated to bottom-up fundamental research. The firm's research capabilities are divided into two platforms: credit research and securitized research. Both divisions utilize fundamental and quantitative components. Analysts are organized by sector and industry and are typically responsible for covering 1 to 4 total industries. Relative value rankings are assigned to each industry by the respective analyst.

All research notes, reports and financial models analyzed by the firm are placed on a global web-based research platform ("One Point") to facilitate communication amongst all analysts around the globe in both equity and fixed income. Analysts use a wide variety of information points including: trade publications/newspapers, primary financial documents (10-Qs, 10-Ks), relationships and meetings/calls with company management, competitors, and key industry contacts, enabling them to construct unique perspectives. While being able to deeply investigate credits, FIAM also covers a wide breadth of issuers having its 70+ credit analysts following 30 to 50 companies each. The Fixed income team is also able to leverage an additional 400 research analysts located around the globe who work for Fidelity's Equity division.

FIAM has also constructed a strong quantitative research group that has built a number of proprietary models used for credit, relative value, structured security, yield curve, and interest rate analysis. The securitized analysts use proprietary analytics to run the entire investable universe through specially designed models to evaluate risk. The internal models also provide the team unique insights into the market that allow them to quickly identify opportunities. The team has also built its in house risk model to better understand risks in the fixed income market.

Overall, the firm has one of the deepest research teams with numerous avenues to gather issuer specific information through fundamental and quantitative research methods. The depth and breadth of the firm's resources are well above average versus peers.

	Rating Decile	Weight
III. Forecasting	3rd	20%

A team framework is incorporated within the decision making process. The team is responsible for all sector and security-level decisions within the portfolio. The team structure provides multiple inputs into the investment process, with final accountability resting on the lead PMs. The team remains vigilant to shifts in market liquidity and remains broadly diversified in government securities and mortgages to maintain liquidity. The team has ample resources and has developed many proprietary tools to shock portfolios by generating a distribution of probable returns. The results of these distributions influence portfolio positioning and risk exposure.

Credit analysis is based on a thorough understanding of the industry and company fundamentals versus peers. Each analyst covers 30-50 names, making it very manageable to gain a deep understanding of their credits. Mortgage analysis is based on expected returns using the firm's proprietary modeling to estimate prepayments and option adjusted spreads in order to identify securities with the most attractive risk/return characteristics. Overall, FIAM uses a structured process merging fundamental and quantitative research to expected return forecasts that is fairly transparent and repeatable.

	Rating Decile	Weight
IV. Portfolio Construction	1st	20%

The Broad Market duration strategy attempts to outpace the Bloomberg Barclays US Aggregate Bond Index by 50-75 basis points per annum, with 100-150 basis points of ex-ante tracking error. The firm remains relatively duration neutral, limiting its duration exposure to +/- 10% of the benchmark. In general, the portfolio construction process focuses on sector allocation, security selection and yield curve positioning. Credit risk is diversified with no individual issues comprising more than one percent. As part of its risk management and relative value monitoring, the firm has constructed a number of reports tracking specific credit and mortgage issues to highlight potential credit concerns. FIAM receives an above average score for its defined portfolio construction process using its system to efficiently translate its forecasts into a portfolio while dissecting the allocation of risk.

FIAM employs a bottom-up portfolio construction process using its proprietary risk model to monitor risk exposures. Portfolios are constructed to exploit relative value opportunities at the security and sector level. The risk budgeting process seeks to maximize the expected IR of investment strategies within acceptable levels of tracking error. FIAM's risk model provides an ex-ante tracking error and decomposes how risk is being allocated to ensure that the portfolio reflects the expectations of the investment team. Scenario analysis and stress tests are also used to understand how the portfolio reacts under certain economic situations.

Fidelity Institutional Asset Management (FIAM)

Broad Market Duration

	Rating Decile	Weight
V. Implementation	1st	10%

FIAM has an extensive trading team that utilizes a trading database management process called "Point of Trade" that tracks all portfolio positions and its respective trading history. The trading systems are integrated for purposes of back office administration and compliance monitoring firm wide. The trading team is responsible for executing trades at the direction of the portfolio managers. However, the trading team does have limited discretion in execution, and have been integrated as such, to provide market color and the ability to pontificate on relative value with the portfolio management team. Traders have full discretion to seek the most optimal trading strategy that will minimize transaction costs and are compensated in-line with this expectation of best execution in all strategies. The firm's broad resource dedication to the implementation process gives is above average versus peers.

	Rating Decile	Weight
VI. Attribution	3rd	10%

FIAM uses a proprietary multivariate attribution model to identify the sources of performance, drilling down to the security level. Formal attribution reports are generated on a monthly basis which the team reviews to evaluate its investment strategies. Performance attribution is also generated by FIAM's systems on a daily basis and viewed by the investment team. Output from the attribution reports is used to decompose sources of performance by industry and security selection. The reports are used to confirm that sources of performance are coming from expected sources and to help evaluate research analysts and portfolio manager decisions. Overall, the firm receives above average marks for its integration and depth of performance attribution.

	Rating									
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	A		B		C		D		F	

Fidelity Institutional Asset Management (FIAM)

Broad Market Duration

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Manager Research

Franklin Templeton Investments

Templeton International Bond Plus

Summary

Rating Decile	Weight
2nd	100%

Franklin Templeton International Bond Plus is an absolute return driven portfolio that invests outside of U.S. fixed income market. The portfolio can invest in US Treasuries but typically keeps the allocation between 0-5%. The product is agonistic with an aggressive expected risk/return profile, seeking to add 300- 600 basis points excess return while taking 300-600 basis points of tracking error risk.

The team is led by an experienced and knowledgeable portfolio management team that has benefited from a stable work environment. Also, the investment team's ability to leverage the firm's global research platform through its local offices and equity teams provide additional insight into developed and emerging market countries rivaled by few of its peers. While the product has an absolute return focus, it does have a risk aware portfolio construction process. The team uses its risk model to construct a portfolio that spends its risk relative to its highest conviction ideas. It also performs a thorough attribution analysis to decompose the sources of returns and the team's ability to spend risk.

	Rating Decile	Weight
I. Organization	3rd	20%
Firm	*6th*	*50%*
Team	*1st*	*50%*

The Templeton organization was founded by Sir John Templeton in 1940. Today, Franklin Resources, Inc., the parent company of Templeton Investment Counsel, LLC, is a publicly-listed company. Directors and officers of Franklin Resources, Inc. own a considerable minority stake in the company's stock. The firm provides investment advisory and related services to mutual funds, institutional and private accounts, and other investment products.

The firm's assets were at approximately $650B as of 12/31/2018, which is down from a peak of approximately $920B in 6/30/2014. In addition, while the firm does have a deep team of investors, there has been turnover over the last few years at the portfolio manager level on the equity side of the business that Wilshire views negatively in the short-term. The firm score has been reduced to reflect the firm's large AUM decline due to outflows and market moves, in addition to higher employee turnover.

All portfolio managers and senior professional staff are compensated with a base salary, bonus in the form of cash, and restricted stock and deferred profit sharing plan. Variable compensation is tied to investment performance as well as a number of other factors, such as top-line firm revenue.

In 2006, the Franklin Templeton and Fiduciary teams merged to form one global team that numbers over 110 investment professionals. The resulting merger provided deeper and broader insights for the entire team and allowed Franklin to offer a full suite of domestic and global fixed income products.

Michael Hasenstab, Ph.D, CIO of the Templeton Global Macro Group, manages this strategy along with Sonal Desai, Ph.D., Portfolio Manager and Director of Research. They are supported by five senior global macro analysts, who are all also Ph.D.s. They also have five country analysts, four traders, an institutional portfolio manager and three quantitative analysts. Overall, Franklin has a global investment organization with credible personnel whose incentives are aligned with their clients. As a result, the product ranks above average.

Franklin Templeton Investments

Templeton International Bond Plus

II. Information

	Rating Decile	Weight
II. Information	1st	20%

Franklin Templeton utilizes its global research effort to provide a wide breadth of information for its investment process. The firm utilizes non-proprietary data from SEC filings, First Call, IDC Fact Set, Datastream, sell side research, trade journals, government agencies, and international organizations to develop proprietary models in its investment analysis and risk management processes including a proprietary factor risk model used in its portfolio construction analysis.

Its global research presence provides additional viewpoints from a non US investor perspective and on the ground local research not available to some of its peers. The firm leverages its global equity research platform to facilitate meetings with senior management and government officials abroad providing additional sources of information. Both portfolio managers and traders will travel to assess the local markets, working with local office resources when available. This local level of research and on the ground analysis provides additional insights in its emerging market analysis not available among other managers in the universe. Franklin Templeton uses its global research effort to provide a broad set of information and provide a deeper understanding researching securities and sectors through fundamental and quantitative research. As a result, the firm ranks above average.

III. Forecasting

	Rating Decile	Weight
III. Forecasting	1st	20%

The product seeks add value from country/duration, currency allocation as well as sovereign credit selection. Top down strategies used by the fixed income team are generated in two stages. The first is the Global Investment Forum (GIF) that consists of senior equity, fixed income, real estate and research investment professionals from around the globe. The GIF serves as a forum for senior investment professionals from different disciplines to focus on global macroeconomic trends and provides a framework for understanding the impact of these factors on the fixed income portfolios. The next step is the FIPC which uses the forecasts from the GIF and merges bottom up information provided by the sector research teams to identify value opportunities. The process develops duration, yield curve, currency, and sector strategies available to the entire fixed income platform. The next step is the FIPC which uses the forecasts from the GIF and merges bottom up information provided by the sector research teams to identify value opportunities. The process develops duration, yield curve, currency, and sector strategies available to the entire fixed income platform.

The input from other investment disciplines in the process provides additional perspective that is rarely used by other mangers in the universe giving the firm a somewhat unique process. Once strategies have been identified, sector teams seek to identify undervalued securities to achieve target exposures. Security selection employs fundamental credit and economic analysis as well as using quantitative tools to identify relative value opportunities and price dislocations in the market. Weekly meetings provide the team the ability to review their macro forecasts as well as review security selection decisions produced by the sector teams. Overall, Franklin Templeton employs a systematic and transparent process to develop top down strategies and security selection ideas. As a result the firm ranks above average.

IV. Portfolio Construction

	Rating Decile	Weight
IV. Portfolio Construction	3rd	20%

Portfolios are constructed using the top down themes developed by the FIPC. A risk budget is developed based on the strategies and limits allowed by the investment guidelines to develop a model portfolio. The team will use its proprietary risk model to scale the positions of the strategies so that they are consistent with the FIPC views of expected risk/return and fit within the risk budget. Other risk models from Yield Book, Barra, and Barclays Point are used to provide additional perspective in budgeting risk and portfolio risk analysis.

The product is benchmark agonistic and will opportunistically invest in both emerging market and developed countries which may lead to, at times, significant deviations relative to the benchmark. Also, the fund has a relatively high expected return target of 300-600 basis points while targeting 300-600 basis points of tracking error and can invest up to 35% below investment grade securities. The portfolio can invest in US Treasuries but typically keeps the allocation between 0-5%. While the product will take significant tracking risk relative to the benchmark, the use of the firm’s models to scale positions that reflect the conviction and views of the FIPC gives the product ranks above average.

Franklin Templeton Investments

Templeton International Bond Plus

	Rating Decile	Weight
V. Implementation	3rd	10%

Portfolio Managers and traders execute all bond and currency trades for the product. The team has three traders and an assistant trader, though most of the value add from trading comes from senior trader Michael Messmer with the others acting as execution traders. The firm stays in contact with the street in order to gauge liquidity as well as identify houses that will provide the best executions given positions on their own books. All trading activity is overseen by the firms Brokerage Committee that meets quarterly to review trading costs and broker/dealer relationships. The committee also provides a list of preferred brokers that have historically been able to deliver best execution possible. Charles River system provides straight through trade processing, trade allocation, and pre trade compliance checks. Franklin also has an internally built system to review post trade compliance as well. This firm’s trading platform, including execution in local markets, gives the product an above average ranking. However, it should be noted the there is a heavy reliance on the senior trader in the group. Also, given the large positions made in the highest conviction bonds, the strategy can run into liquidity issues. These factors temper the team's implementation score.

	Rating Decile	Weight
VI. Attribution	1st	10%

Franklin Templeton uses a proprietary attribution model as well as Barclays Point to decompose performance. Franklin’s proprietary attribution model is based on the same factors as its proprietary risk model allowing the team to attribute if they are being compensated appropriately from the risk being spent. Performance is formally reviewed against the benchmark on a monthly basis in order to identify the drivers of performance. The investment team is also provided with daily attribution and risk analytics allowing the team immediate feedback on their performance and ability to adjust the portfolio. Attribution allows the team the transparency to determine if the drivers of performance are coming from the investment team’s expectations. Unusual results will lead to further investigation which may cause an adjustment to the portfolio or the investment process. Overall, the firm’s use of attribution to review performance and examine their investment strategies on a daily and monthly basis gives the product an above ranking.

	Rating									
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	A		B		C		D		F	

Franklin Templeton Investments

Templeton International Bond Plus

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Manager Research

MacKay Shields LLC

Core Plus

Rating Decile	Weight
5th	100%

Summary

MacKay Shields provides three types of core product with varying degrees of risk exposure, including Core (conservative), Core Plus (aggressive), and Core Plus Opportunities (most aggressive). The team composition has evolved with all the long standing members retiring over three years, three new investment professionals joining, and existing staff having been promoted. Our level of conviction in this strategy has evaporated. The strategy holds securities only if their yields are high enough to compensate for the associated risks. The process includes a top-down element as well as a bottom-up security selection process. The team employs a four-step investment process by first determining where the economy falls in the risk cycle, then tilting duration, yield curve, sector allocation, and security selections to take advantage of the market environment. While the investment process remains generally intact, having an entire senior portfolio management team retire within three years, there is a great deal of uncertainty. There could be a period of unexpected turnover as the newly assembled team finds its footing and there could be sizable outflows should investors wish to avoid uncertainty.

MacKay Shields LLC

Core Plus

	Rating Decile	Weight
I. Organization	4th	20%
Firm	*2nd*	*50%*
Team	*5th*	*50%*

Founded in 1938 as an economic consulting firm, MacKay Shields has expanded over time to offer products across the full range of fixed income products as well as international equity and convertible strategies. The firm was later purchased by New York Life Insurance Company in 1984, but it remained autonomous. MacKay Shields manages separate accounts and sub-advises most of the Mainstay Funds, the mutual fund platform of New York Life Investment Management (NYLIM). In 2009, the firm acquired the assets of Mariner Municipal Managers LLC, and its municipal team joined as a result. MacKay Shields prides themselves as a multi-boutique organization with diverse revenue streams from their different products and teams. Given the turnover of the Global Fixed income team, we are cautious of potential outflows.

Compensation is comprised of a base salary and an annual bonus that is available to all employees. The incentive bonus equal to a significant percentage of the firm's pre-tax profits and is paid annually to the firm's employees based upon the individual's performance and the profitability of the firm. MacKay Shields has established a Phantom Stock Plan where awards can be made annually and vesting takes place over a period of several years. Participation in the plan by senior professionals is contingent upon the execution of an Executive Employment Agreement.

Generational change in the leadership in the fixed income business brings uncertainty including possible significant outflows to a suite of products. With the retirement of an entire senior portfolio management team, there could be a period of unexpected turnover as the newly assembled team finds its footing.

The strategy is managed by the Global Fixed Income team, Dan Roberts, CIO of global fixed income has announced his retirement effective December 2019. Mr. Roberts will transition to a senior advisor role during 2020 before severing ties with the firm. This concludes the retirement of the original team that built the track record for the team. Lou Cohen announced his retirement in late 2018, while Michael Kimble left the firm at the end of 2018, Taylor Wagenseil, retired in August 2017. While the team has undergone a multi-year transition, we took comfort that Dan Roberts the architect of the process remained at the helm but with his retirement, our level of conviction has evaporated.

In May 2019, the firm announced they had hired an experienced economist to join the team. Steven Friedman joined from BNP Paribas and has 15 years of experience at the New York Federal Reserve.
Joseph Cantwell, Matthew Jacob and Shu-Yang Tan were promoted to portfolio management and joined the investment committee. The three are focused on the high yield credit platform. In early 2018, the firm hired two experienced portfolio managers with expertise in the securitized space, Neil Moriarty and Steve Cianci; both were formerly with Aberdeen Asset Management. The two bring depth to an asset class that MacKay has not historically focused.

We have concerns with regards to the transition from the senior portfolio managers who build the track record to the next generation of leadership and the entire team dynamic is in flux   A number of the next generation of investors that have tenure, have been bypassed with the addition of the new experienced senior portfolio managers, this could create challenges with team dynamics.

With the retirement of the long standing portfolio management team, promotion of existing investment team members, as well as the integration of new experienced senior team members (a departure from MacKay's historical practice) our confidence has dwindled.

We are cautious as the team's expertise is changing since the new portfolio managers' skill sets represent a shift in focus. The addition of a senior economist, while a positive is another change to their process as the head of the investment policy committee will not be someone executing the decisions in the portfolio.

	Rating									
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	A		B		C		D		F	

MacKay Shields LLC

Core Plus

	Rating Decile	Weight
II. Information	4th	20%

The team hired an economist to take over Dan Roberts role as head of the investment policy committee. While Steven Friedman is experienced, we have concerns about how his research and opinions will received by the team. Given that the top-down view is the first step for the investment process, this uncertainty leads to a lower score.

The team focuses on both top-down and bottom-up credit analyses. With the integrated team, corporate credit research became a stand-alone function with seven analysts covering investment grade and high yield credits. Credit analysts utilize a wide range of sources to gather information, such as company financial statements, Wall Street research, periodicals, competitors, and customers. Team members also have access to research performed by the firm's other teams, such as value, growth, convertibles, and small cap. With the combined team in place, they are adequately resourced.

Finally, while the team has added two seasoned portfolio managers with experience in the securitized space, currently those portfolio managers do not yet have all the typical tools on which they rely on to identify the specific securities that they would invest in. Over time, we would expect that the firm will invest in the proper software and systems specific to the securitized space.

	Rating Decile	Weight
III. Forecasting	4th	20%

The team exercises a four-step investment process. Step one starts with a top-down macro overlay by determining what stage of the risk cycle the economy is in. The team believes that there is a risk cycle every 3-5 years. Portfolios should have certain characteristics during different stages of the cycle to take advantage of the environment and yield levels. Step two is to decide on the five key fixed income risk factors based on their determination of the economy position in the cycle. For example, during an early recovery stage, the portfolios have a shorter duration, a flattening curve bias, and an emphasis in sectors such as high yield and convertibles. Step three assesses sector relative valuations and opportunities. Step four is to evaluate individual security risk-return values. For yield curve and duration analysis, the team also uses proprietary models to forecast the direction of interest rates and the fair value of curve structure. The team analyzes relative value by examining the historical spreads within and outside a sector to aid in forecasting future performance. The security selection process begins with reviewing individual security spread relationships and comparing them with alternative issues.

With the addition of the new portfolio managers and their experience in the securitized space, their input into the process brings some change to the overall process. The team has historically analyzed relative value in the corporate credit space, and has not had the depth to consider more complex securitized issues into the analysis, thus the newly configured team does not yet have a proven track record. Furthermore, the long standing team that had been responsible for forecasting is retiring, while the new portfolio managers have not been as focused on forecasting. One change to the process which is problematic, is that the head of the investment policy committee has the final decision making authority for portfolios but is not involved in the actual execution of those decisions. While the process is generally unchanged, given the new investors we are uncertain of how the process will be interpreted or implemented.

Overall, the team has a systematic forecasting process and a blend of top-down and bottom-up approaches. Please note, the Core and Core Plus composites dates back to the former Core team led by Gary Goodenough, and the Core Plus Opportunities composite dates back to the former High Yield Active Core team led by Dan Roberts.

MacKay Shields LLC

Core Plus

	Rating Decile	Weight
IV. Portfolio Construction	6th	20%

Portfolios are constructed in line with the top down forecasts for duration, yield curve, sector allocation, and issue selection. In 2011, the team developed and implemented a new risk budgeting and monitoring system. It takes into account of portfolio guidelines and current holdings to ensure that risk exposure is consistent across platform, at the same time in line with client guideline spirit.

As the new portfolio managers' degree of influence grows and the construction of portfolios changes, the risk exposures and profiles will be shifting. The team believes the current risk systems are adequate for understanding the risks and changes that the additional securitized holdings could bring. The firm does not expect the additional resources in the securitized space will change their existing guidelines or the average number of holdings for portfolios. We are not convinced that this will remain so as Dan Roberts retires.

The strategy looks to hold between 100-175 issuers and the maximum position in a single issuer is limited to 3% above the benchmark. Core Plus can go up to 40% in non-benchmark assets, and Core Plus Opportunities is agnostic, but limits below investment grade to 30% exposure. The main difference between the Core Plus and Core Plus Opportunities strategies is an allocation to Mackay's Defensive Bond Arbitrage commingled fund in the Core Plus Opportunities strategy. The team intends to keep the portfolio fully invested but normally has a cash allocation of 0% to 5%. The firm will sell a security if it exhibits at least one of the following: credit deterioration (the most important discipline), re-positioning caused by a change in the firm's top-down outlook, excessive downward price volatility, or recognition of an alternative relative value opportunity. While the team is benchmark aware, tracking error may vary depending on the current stage of the market cycle as well as PM investment decisions. Overall, the team constructs a fairly diversified portfolio.

	Rating Decile	Weight
V. Implementation	5th	10%

The team has four traders. Historically, the annual portfolio turnover has ranged from 50% to 100% for the Core and Core Plus strategies, and is less than 50% for Core Plus Opportunities. With nearly 100% turnover in the historical investment team, the new individuals are untested operating as a team. The firm uses Charles River as its order management and compliance system. MacKay Shields has a brokerage committee that monitors trade execution quality and brokerage allocations. Senior representatives from each of the investment teams head the committee. While the team is staffed with experienced traders and has adequate resources and systems, we are uncertain that the new investment team will continue to adhere to historical practices. Furthermore, the addition of two senior securitized portfolio managers adds a new facet to the strategy and there are concerns about the portfolio without an experienced trader for that sector. Given all the uncertainty around the stability of the newly configured team leads us to a lower score.

	Rating Decile	Weight
VI. Attribution	3rd	10%

Monthly performance attribution is generated using a both Facset and a proprietary transaction-based methodology. Excess return is distributed among five factors: duration, yield curve, sector weighting, issue selection, and yield. The team also conducts sector performance attribution to determine the rotation effect between Treasury, Agency, Corporate, residential MBS, CMBS, ABS, and cash. The team uses daily attribution reports to monitor every issue in the portfolio verses the benchmark to verify that active bets are in line with the views of the investment team. The integration of attribution into the investment process has historically aided in their portfolio construction effort.

	Rating									
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	A		B		C		D		F	

MacKay Shields LLC

Core Plus

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Manager Research

Neuberger Berman

International Select

Rating Decile	Weight
1st	100%

Summary

The Neuberger Berman International Large Cap Equity strategy is a suitable investment option for clients seeking core-like exposure to the Non-US equity space. The strategy is grounded in bottom-up, fundamental analysis and tilted towards owning large-cap companies. The lead portfolio manager, Ben Segal, exhibits strong investment acumen and oversees a team that demonstrates a comprehensive understanding of the companies in the portfolio, having added considerable value through a competitive forecasting approach. The investment process ultimately results in a portfolio of approximately 50-70 securities with the ability to hold up to 15% in emerging markets. The strategy tends to exhibit a slight growth orientation, owed in part to its "quality at a reasonable price" approach.

	Rating Decile	Weight
I. Organization	1st	20%
Firm	*1st*	*50%*
Team	*1st*	*50%*

Founded in 1939, Neuberger Berman is an independent asset management firm with global capabilities expanding over equity, fixed income and alternative investments. The firm experienced significant ownership change through the 2008 bankruptcy of its former parent Lehman Brothers. After a management buyout in 2009, the firm become employee controlled, but 51% of the firm was held by the Lehman Brothers estate. In 2013 Neuberger Berman accelerated forward a plan to purchase the equity stake held by the Lehman estate. In December 2014 the firm became 100% owned by current and former employees.

Currently about 500 of the 2000 employees are shareholders in the firm. As of 3Q18, the firm is at peak AUM of roughly $310 billion, of which is comprised of about $100 billion in equities, $130 billion in fixed income and $77 billion in alternatives.

The independence of an employee owned firm is a strength for Neuberger Berman which allows it to retain employees and attract new talent. This gives it an advantage as compared to many industry peers.

The International strategy is led by Ben Segal, who began co-managing the firm's International Equity product in 1998. He later took over full discretion for that product in 2001 and has been the Lead PM on International Large Cap product since 2005. He is supported by six Global Sector Analysts. Since 2003, Mr. Segal has built upon the product platform that was in place.

In 2008, the team witnessed the departure of Associate Portfolio Manager, Milu Komer, who joined the firm in 2001 and was promoted to Associate PM in 2005. She left to join CRM to head up their International Equity strategy. While Ms. Komer was serving as an Associate PM, Mr. Segal is without question the key to success for the strategy. Then in February 2011, Matt Chan, a Global Sector Analyst covering IT and Consumer Staples, resigned for another opportunity. In both of these cases it at least appears the driving force behind their decision to leave was to be part of a smaller team, and to have more decision making control. So, as analysts develop and expand their responsibilities, it is possible that from time to time the team will see further departures of individuals seeking out more portfolio management type responsibilities. These changes did not and should not adversely impact Mr. Segal and his team from executing their process successfully.

Overall, the senior members of the team have impressive educational backgrounds and work experience. Mr. Segal has demonstrated a strong passion for investing and a firm grasp of the day-to-day research and management of his team. The push to become 100% employee-owned by the end of 2016 further strengthens our conviction in the organization.

In early 2014, Ben Segal, lead portfolio manager, relocated to the firm's Singapore office to strengthen his knowledge of the ever expanding Asia Pacific opportunity set. This geographic change was intended to be temporary and last no more than two years. During the summer of 2016 Mr. Segal moved back to New York City as expected. We continue to believe having the team operate from one location bodes very well for the platform.

Neuberger Berman

International Select

	Rating Decile	Weight
II. Information	1st	20%

The international equity team's investment philosophy is highly focused on in-depth, bottom-up, fundamental research. The team uses proprietary screens to narrow down its universe, which has very defined criteria within the categories of a company's operating track record, profitability, growth rate, and financial strength. Companies that meet the defined criteria are then evaluated through deep fundamental research, which includes meetings with management, suppliers, competitors, as well as government regulators. The team builds proprietary models on each company and stresses the use of discounted cash flow analysis. The team also incorporates external sources of information such as Factset, the International Monetary Fund, World Bank research, as well as research from the sell side community for additional perspectives.

Overall, the team has demonstrated a comprehensive understanding of the companies in the portfolio and how each company compares to competitors within its respective industry. Furthermore, the portfolio managers and analysts are thorough and meticulous in their research.

	Rating Decile	Weight
III. Forecasting	1st	20%

The team excels in its forecasting approach, which is titled Quality at a Reasonable Price ("QuaRP"). In order for companies to be considered as a candidate for research, they need to exhibit a strong track record in operations for 3-5 years, return on invested capital greater than 12%, growth rates above 5%, and debt/equity less than 75%. The philosophy of the teams favors companies that grow organically through reinvestment in the business versus serial acquirers. The team fundamentally evaluates securities using common financial metrics such as PEG ratios, EV/EBITDA, and EV/Invested Capital, and complements this with discounted cash flow analysis to arrive at a price target for each company. The triangulation of multiple valuation methods provides a sanity check to the inherent assumptions to any one approach.

The team has demonstrated an ability to consistently add value through security selection, independent of its value added through biases in market capitalization and resulting country/sector bets. Although the forecasting approach itself is not unique in nature, the screening methodology and discipline in setting price targets leads to a strong forecasting approach.

	Rating Decile	Weight
IV. Portfolio Construction	1st	20%

The strategy is benchmarked against the MSCI EAFE Index. The team builds portfolios of approximately 50-70 securities, with position sizes ranging from 1% to 5%, and the top ten positions make up approximately 30% of the total portfolio. The portfolios are constructed from the bottom-up, but have some country and sector constraints (+/- 15% of the index weights). While the firm's International Equity strategy is a true all-cap strategy, the International Large Cap product is limited to securities above $2.5B. The team does not use any formal methods of optimization and maintains considerable latitude to move up and down the market cap spectrum and across countries/sectors. The portfolio manager employs BARRA for risk management however, and is very conscious of the risk in portfolio and tracking error. Tracking error for this strategy is predicted to 4-7% over a market cycle. Portfolios will maintain up to 15% exposure to emerging markets. The team has sufficient risk controls in place and the portfolio manager is very conscious of the portfolio's structure as well as exposures to macro factors such as interest rate exposure.

	Rating Decile	Weight
V. Implementation	1st	10%

Neuberger Berman has a centralized trading desk comprised of 11 traders. ITG's Macgregor XIP Order Management System is used to route orders to the Equity Trading Desk from the investment team. Portfolio administrators stand ready to enter pre-allocated orders in the system and electronically route those orders to the trading desk. The Macgregor XIP Trading Platform is used to identify any trading restrictions prior to execution. ITS order formulation sub-system checks are conducted before any execution to ensure compliance and that these trades meet client guidelines. The firm's Asset Management Guideline Oversight (AMGO) group serves as an independent supervisory entity responsible for ensuring portfolios are managed in accordance with client investment guidelines. AMGO is managed by Stephen Wright and supported by eight additional team members located in New York and Chicago. The firm utilizes its proprietary Portfolio Management Reporting as its multi-currency portfolio accounting system. Trading costs are measured via ITG's Transaction Cost Analysis (TCA) system to evaluate the execution quality across a variety of industry benchmarks on a T+1 basis. Neuberger Berman is GIPS compliance and was last verified by Ernst & Young for 2010. The firm pays soft dollars for research products, but does not release the percentage of commissions tied to soft dollar arrangement as they deem this proprietary to the firm. Overall, the firm maintains a fine trading platform that allows for good execution of the international equity strategy.

Neuberger Berman

International Select

	Rating Decile	Weight
VI. Attribution	1st	10%

The international equity team excels in performance attribution. The team has a number of systems in place to monitor the risk budget, perform multifactor attribution, as well as variance analysis. Specifically, the firm uses both BARRA and FactSet for performance and risk attribution, which is also incorporated as part of the portfolio construction process.

	Rating									
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	A		B		C		D		F	

Neuberger Berman

International Select

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Manager Research

Northern Trust

NT Quality Small Cap Value Strategy

Summary

Rating Decile	Weight
4th	100%

Northern Trust offers a quantitative Small Cap Value strategy which is broadly diversified by number of holdings (400-600) and remains largely sector neutral which allows for stock selection to drive the alpha potential of the strategy. The strategy is led by Robert Bergson, who has managed the product since 2001. The quantitative platform is much more simplistic and subjective than many of its quantitative peers; however the process has historically led to a high level of repeatability as well as the ability to focus on minimizing transaction costs. The strategy has a long-term holding period with annual turnover of around 20-30%. The strategy tends to offer strong downside protection given its quality focus but has produced competitive investment results in a variety of market environments. Overall, the strategy is suitable for investors that are looking for a diversified, low turnover quantitative strategy which has historically produced attractive risk-adjusted returns.

	Rating Decile	Weight
I. Organization	5th	20%
Firm	*6th*	*50%*
Team	*4th*	*50%*

Northern Trust Investments is a wholly-owned subsidiary of Northern Trust Corporation. Northern Trust was founded in 1889 and is headquartered in Chicago, IL. The parent company is a publicly traded firm that trades on the NASDAQ under ticker symbol NTRS. Approximately 5% of the corporation is held by active employees, directors, and retirees of the organization. Northern Trust offers equity, fixed income, and multi-manager solutions with meaningful AUM dedicated to passive investment strategies. The organization has built a solid reputation for custodial services and transition management.

Investment professionals are compensated through base salary, a special incentive plan, and other special investment programs. Incentive payments are based primarily on the group's short-term and long-term investment performance, in addition to client retention and revenue targets.

The management of the Small Cap Value product resides within Northern's Global Quantitative Active Equity Team which reports directly to the Head of Global Equity, Matthew Peron. The team is primarily responsible for managing the Small Cap Value, Small Cap Core, and International Small Cap strategies using the same quantitative investment philosophy. The team primarily consists of 5 individuals with Robert Bergson focusing on small caps since 1999 and leading the Small Cap Value effort since 2001. He is assisted by Senior PMs, Sri Kancharia and Mark Sodergren, as well as PM, Reed LeMar, and Associate PM, Steven Wang. The team is also able to leverage the firm's quantitative research group which is headed by Michael Hunstad, PhD. Mr. Hunstad replaced Joe Wolfe, who departed the organization during 2011.

While the overall Northern organization has experienced some personnel turnover over the years, the portfolio management team responsible for this strategy has been relatively stable. Mr. Bergson has managed this strategy for the past 15 years and brings meaningful leadership and continuity to the team. However, it should be noted that the overall size and talent level dedicated to quantitative active equity strategies is modest relative to peers.

Northern Trust

NT Quality Small Cap Value Strategy

II. Information

Rating Decile	Weight
5th	20%

The philosophy of the team is that a quantitative approach to portfolio management is the best way to consistently take advantage of investors' behavioral biases and the resulting inefficiencies within the small cap market. Thus, the team employs a systematic approach of gathering common, publicly available information from multiple external sources, including IBES, First Call and Bloomberg. The quant research team uses this information as inputs into the firm's multi-factor model to produce unique alpha scores that are binary in nature. The model is relatively simplistic and incorporates a small qualitative component to ensure data integrity. The portfolio managers typically conduct a brief check on the back end to look for corporate actions or other events that the quant model would not have identified. The overall model relies upon publicly available information and incorporates widely recognized quantitative factors within it which ultimately leads to an average information score.

III. Forecasting

Rating Decile	Weight
3rd	20%

The quantitative model begins with 5 equally weighted binary factors to rank the stocks within each sector in its investable universe. Within valuation, the team looks for high earnings and book yields (low P/E and P/B). The momentum factor looks at a 2-year momentum figure, which is somewhat unique as other strategies that use momentum factors typically use 1-year (or shorter) timeframes. However, the team is in the process of evaluating whether a 1-year momentum factor is more appropriate. The profitability factor considers both trailing and forecasted earnings (positive earnings are required to score well in this factor). Within each factor, the outliers of each distribution are also eliminated (e.g., quintiles 1 and 5 for the valuation factors) in an effort to reduce the most extreme data within each respective factor. The cumulative binary scores are added together and the top and bottom 30% of companies in the rankings are considered "buy" and "sell" rated, respectively.

A three-factor Quality "Distress" Overlay is next applied. To determine the level of a company's distress, the team looks at earnings quality (cash flow based metrics), sources of financing, and efficiency (margins of a business). The Quality "Distress" overlay can immediately downgrade a "buy" to a "hold", and a "hold" to a "sell". Thus, companies with distress ratings are not purchase candidates, which results in a higher quality portfolio.

Once the model outputs are known, the team manually eliminates the lowest ranked companies and purchases the highest ranked stocks in each sector on a cap weighted basis with an eye towards portfolio guidelines, desirable portfolio characteristics, and minimizing the impact of transaction costs. The model is executed quarterly and the trading team is given discretion and is extremely patient in their implementation efforts in order to reduce turnover and transaction costs. Overall, the team's approach to forecasting is relatively simplistic. However, the strategy has produced very competitive and consistent investment results relative to both the Russell 2000 Value Index as well as the peer group on a risk-adjusted basis.

IV. Portfolio Construction

Rating Decile	Weight
2nd	20%

Portfolio construction is a competitive advantage for this strategy. The buy and sell universes are very clear as they are completely dependent on the model rankings (stocks ranking in the top three deciles are purchase candidates while stocks in the bottom three deciles are sell candidates). In addition, the team will sell stocks once they become too large in market cap or when they become financially distressed. Individual stocks and sectors are both constrained to +/- 200bps from the benchmark weights, so the portfolio will closely follow the index from those perspectives. Stocks on the buy list are cap weighted with the benchmark such that larger holdings in the index will consequently result in larger holdings in the portfolio. The resulting portfolio is extremely diversified and typically holds 400-600 stocks and remains fully invested. The team utilizes linear optimization as opposed to quadratic optimization as the portfolio managers are somewhat cautious regarding the inputs within backward looking risk/optimization tools. Qualitative overrides by the portfolio managers can occur; however this is largely done to reduce specific risk exposures within the portfolio.

The portfolio tends to have higher margins/profitability (ROE, ROA), lower debt ratios, and modestly lower volatility relative to the benchmark. The weighted average market cap tends to resemble the Russell 2000 Value Index, but will likely have lower exposure in the more illiquid, smaller cap area of the benchmark. Tracking error has generally ranged between 2-4% historically. Overall, Northern Trust offers a highly diversified, risk controlled, quantitative, small cap value strategy.

Northern Trust

NT Quality Small Cap Value Strategy

	Rating Decile	Weight
V. Implementation	1st	10%

Implementation is a competitive advantage for this strategy. Given the diversification of the portfolio and the number of "buys" and "sells" that the model produces four times per year, the extremely low expected turnover ratio of 20-30% dictates that the traders are extremely patient and maintain significant discretion in their execution. Traders are willing to wait for the market to come to them and absorb excess liquidity in the market, serving more as a market maker or liquidity provider in many circumstances. They also utilize a variety of channels, taking advantage of both principal and agency trades in addition to heavy use of ECNs to keep commission costs minimal. In addition, the firm actively measures transaction costs to gain insight into how well the process is working. Overall, the team is focused on minimizing total portfolio transaction costs and has structured the entire investment process in such a way that trading can add value relative to peers. Total capacity for the strategy is expected to be in the $4-5B range.

	Rating Decile	Weight
VI. Attribution	2nd	10%

The team uses attribution heavily to accurately pinpoint sources of return. They use both external and internal systems to break down performance at the stock/sector level in addition to the factor level. This focus on gaining a clear understanding on what is driving portfolio performance earns the strategy an above average score in this area.

	Rating									
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	A		B		C		D		F	

Northern Trust

NT Quality Small Cap Value Strategy

Firm Information

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Important Information

Manager Research

Pacific Investment Management Company LLC (PIMCO)

Short Term Full Authority

	Rating Decile	Weight
Summary	3rd	100%

PIMCO's investment process is keyed off the Global Secular Forum discussion, where investment professionals debate the economy's underlying risks, and forecast turning points. With its top-down macro approach and its in-depth bottom-up security selection process, strategies are constructed to express PIMCO's best ideas.

The Short-Term fixed income mandates are benchmarked to the Citi 3-Month US Treasury Bill Index with the expectation of generating 35-60 bps of alpha with 35-60bps of tracking error. Portfolio durations usually range from 0-1 year, and the Full Authority accounts can invest up to 10% in below-investment-grade securities with minimum rating of B. Non-USD (max 10%) and foreign currency exposure (max 20%) can also be utilized in accounts with more liberal guidelines.

	Rating Decile	Weight
I. Organization	5th	20%
Firm	*4th*	*50%*
Team	*5th*	*50%*

Founded in 1971 as a subsidiary of Pacific Mutual, now Pacific Life, PIMCO has operated as an independent entity since 1982. In 2000, German financial services multinational, Allianz purchased the majority stake of PIMCO Advisors LP, the parent of PIMCO LLC.

Since 2010, many high profile personnel and material investment committee members have left PIMCO. The most notable and surprising was Bill Gross', Founder/CIO, abrupt departure and move to Janus in September 2014. At this time the firm implemented a CIO system with Group CIO, Dan Ivascyn, and five sector specific CIOs. It should be noted that in August 2015 the firm received a Wells notice relating to the ETF BOND. In November 2016 Manny Roman was hired from Man Group as the firm's new CEO, with Doug Hodge, former CEO, taking an advisory role. In 2017 it was announced that President Jay Jacobs would retire from the firm. While cautious at first of the continued senior level turnover, we now view the implementation of Mr. Roman's business plan as a positive change.

Prior to Mr. Gross' departure the firm had peak AUM of over $2T, it reached a trough of $1.44T in the fourth quarter of 2015 but by early 2018 it was back up to $1.8T. During this redemption period the firm let a number of people go, primarily client facing as they were staffed for higher asset levels. Prior to Mr. Gross' departure the peak headcount was around 2,450, as assets left they brought headcount down to around 2,200 and they have since added more investment roles as well as rebuilt some of the client team to a level of around 2,300. The firm has also brought on a Global Advisory Board in December 2015 which has five economic and political leaders, including Ben Bernanke as Chair. PIMCO continues to have a deep bench of investment professionals and the firm can still attract industry talents.

Wilshire had reduced the rating for PIMCO to reflect the high level of turnover, concerns around continuity of investment style and large asset outflows. We actively monitored the firm over the following years and have seen stability in the investment style, increasing AUM and the firm continuing to attract high quality talent while returning to normal levels of turnover. The rating was brought back up as we saw more stability.

PIMCO employs a hub and spoke system. The Investment Committee (IC) is considered the "brain" of the organization, consisting of permanent and rotating members. They determine top-down, global macroeconomic directions for all firm's strategies. These members sit on the trading floor, and are also responsible for the day-to-day management of strategies. Sector specialists and research analysts construct specific portfolios according to guidelines, and select individual securities. Bonuses are based on contribution to investment process, client retention, portfolio consistency, relative performance, and peer comparison. This organizational structure has been refined over the years.

PM Jerome Schneider has been actively involved in the management of Short-Term strategies since 2008.

Pacific Investment Management Company LLC (PIMCO)

Short Term Full Authority

	Rating Decile	Weight
II. Information	1st	20%

The firm's internal analyses, coupled with external inputs, provide breadth and depth to its research. The data warehouse infrastructure ensures efficient communication of research and information.

PIMCO devotes significant resources to gather, compile, and process information; thus it has established one of the top proprietary analytic and data distribution systems among its peers. As a large consumer of external data, PIMCO has access to numerous sources. It uses these sources both as a sounding board against their own independent research, as well as to develop and improve internal models. Credit analysts supplement external data with independently acquired information. Sources include qualitative information from industry roadshows and on-site conversations with senior company management. An extensive warehouse centralizes data from internal and external sources. PIMCO maintains a library of information to support security evaluation, risk monitoring, and research distribution.

	Rating Decile	Weight
III. Forecasting	3rd	20%

PIMCO employs a hub and spoke system. The Investment Committee (IC) is considered the "brain" of the organization, consisting of permanent and rotating members. Every May, PIMCO conducts a week-long Secular Forum to construct a three-to-five year outlook on fiscal and monetary policies, inflation, demographics, trades, and other factors that impact the global economy. Investment professionals together with external speakers present secular topics. The Forum serves as a backdrop for information exchange and debate, providing PIMCO's investment professionals with insights to form their economic outlooks. The firm also conducts quarterly Economic Outlooks that forecast economic growth and inflation over six-to-nine month periods. Regional teams from North America, Europe, Japan, and Emerging Markets discuss their research and compare which regions will exceed or fall short of market expectations.

PIMCO's financial engineering team has internally developed over 30 models to identify relative values. But the firm does not employ a black box approach. Rather than relying purely on derived values, the portfolio managers are also expected to use their own experience and judgment, evaluating the data to choose worthy trading opportunities.

	Rating Decile	Weight
IV. Portfolio Construction	5th	20%

The model-portfolio approach provides consistency across all accounts and explicitly expresses the team's strategies. However, it should be noted that usage of derivatives, large out-of-benchmark holdings, and sometimes more-aggressive-than-peers investment style could lead to larger variance versus the benchmark and return volatility.

Portfolio construction begins with a model portfolio. Macro themes are drawn from the Global Secular Forum and the Quarterly Economic Outlook. With a team approach, the Shadow Investment Committee, regional teams, and specialty desks set targets on duration, yield curve, convexity, sector concentration, and credit quality for the specific strategies. The model portfolio is built with all these inputs. Generalist portfolio managers, however, have some leeway to tilt their responsible portfolios toward or away from the model portfolio based on their own insight and research. Generalist and Specialist Portfolio Managers then perform security selection and implement the strategies.

Because of PIMCO's large asset base, it is difficult to invest in less liquid securities and markets; thus derivatives are widely employed to gain duration, sector, and security exposures. CDS, currency futures, interest-rate futures, and total return swaps are the common instruments used in building portfolios. Since these instruments don't always track their respective underlying securities, large variances have been observed from time to time; hence, volatilities are enlarged as a result. The Short-Term track records exhibited PIMCO's value-added through a cycle; however, there have been times non-traditional instruments and riskier-than-normal strategies were employed, making the product a bit more aggressive than the usual risk taking investors are comfortable with for short-term strategies.

The Short-Term fixed income mandates are benchmarked to the Citi 3-Month US Treasury Bill Index with the expectation of generating 35-60 bps of alpha with 35-60bps of tracking error. Portfolio durations usually range from 0-1 year, and the Full Authority accounts can invest up to 10% in below-investment-grade securities with minimum rating of B. Non-USD (max 10%) and foreign currency exposure (max 20%) can also be utilized in accounts with more liberal guidelines.

	Rating									
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	A		B		C		D		F	

Pacific Investment Management Company LLC (PIMCO)

Short Term Full Authority

	Rating Decile	Weight
V. Implementation	4th	10%

PIMCO's internal systems helped the firm effectively implement and control its strategies despite substantial growth. Depending on the experience level, Generalist or Specialist Portfolio Managers execute trades. All block trades are allocated on a pro-rata basis. The firm analyzes trade allocation three times a year to determine whether it helped or hurt a portfolio. Trading costs average 0.125% or less expressed as bid/ask spread. Internal systems allow transparency necessary for the entire investment team to monitor portfolios. The Chief Risk Officer sits on the trading floor allowing quick and easy interaction with portfolio managers to ensure portfolios remain within the direction of the model portfolio.

Capacity and liquidity risks are a concern as the firm is one of the largest fixed income managers in the world. Derivatives are used to improve liquidity and obtain exposures. Performance and portfolio-holding dispersions warrant attention given the vast size variance between small separately-managed accounts (usually with a minimum of $75 million) and large commingled products (in the billions).

Mr. Gross' departure raises the concern of potential outflows from the fund and the impact to performance that may have. Mutual fund performance may be more impacted than separate accounts due to the downward pressure outflows have on a fund.

	Rating Decile	Weight
VI. Attribution	1st	10%

PIMCO's risk management and attribution tools are state-of-the-art and continuously evolving.

PIMCO constantly develops extensive tools and analytic software for security modeling and risk management. These tools enable the investment team to effectively monitor portfolios and decompose performance across multiple dimensions. Internal systems consistently revalue securities versus potential investments for relative attractiveness. PIMCO can quickly identify risks as well as seek opportunities due to its ability to both analyze a portfolio as a whole and drill down to the individual security level.

Pacific Investment Management Company LLC (PIMCO)

Short Term Full Authority

Firm Information

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Important Information

	Rating									
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	A		B		C		D		F	

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Principal Real Estate Investors

Global Real Estate Equity Securities (REIT)

Rating Decile	Weight
1st	100%

Summary

Principal Global Real Estate Securities is a broadly diversified, benchmark-aware strategy that has consistently provided strong risk-adjusted returns within the global real estate investment universe. The team focuses on high quality investments while closely monitoring over- and underweight benchmark exposures. As a result, the portfolio is typically comprised of 85-95 holdings with a goal of outperforming the FTSE EPRA/NAREIT Developed Index by 200 bps over rolling three-year periods with a tracking error of less than 300 bps. The 15-person investment team, led by longtime portfolio manager and developer of public real estate capabilities at the firm, Kelly Rush, resides in the Principal Real Estate Investors (PrinREI) group of the firm. As such, the team has access to information from all sides of the real estate market, public and private debt and equity, from these respective teams also housed under PrinREI at the firm.

Since 2013, several episodes of turnover on the investment team have occurred that Wilshire continues to monitor. This turnover included Local PMs and analysts on the strategy, but the three-person Global PM team has been stable for over 15 years and the Local PM and analyst teams remain very deep and experienced relative to peers to give us comfort. Additionally in 2013, Indraneel Karlekar, Ph.D, was hired as PrinREI's Head of Global Research, reporting directly to Randy Mundt, CIO of PrinREI since 2002. However, in September 2015, Mr. Mundt retired from the firm and distributed his CIO responsibilities to the four division heads (public and private debt and equity), making portfolio manager Kelly Rush the CIO for Global Real Estate Securities.

Overall, the team has made positive steps to replace departures and increase the net size of the team. Furthermore, the very experienced Global PMs and the risk controlled process have remained intact, and the strategy remains a strong investment option for clients seeking an active, benchmark-aware global REIT solution.

Principal Real Estate Investors

Global Real Estate Equity Securities (REIT)

	Rating Decile	Weight
I. Organization	2nd	20%
Firm	*4th*	*50%*
Team	*1st*	*50%*

Principal Global Investors is a wholly-owned affiliate of the Principal Financial Group and was founded in 1879. Principal Financial Group traces its history back over more than six decades of real estate investment experience, starting with single property investments and commercial loans made on behalf of Banker's Life; now known as the Principal Financial Group. In October 2001, Principal Financial Group became a publicly listed company. Principal Real Estate Investors (PrinREI), created in May 1998, is the real estate platform within Principal Global Investors and is organized into "four quadrants" of public and private real estate equity and debt businesses. Together, the four quadrants within PrinREI manage over $70 billion in real estate assets under management, with the majority of assets on the private side.

In September 2015, long-time CIO of PrinREI, Randy Mundt, retired. As a result, his CIO duties were split among the four real estate quadrant heads at the firm, Kelly Rush - Public Equity, Todd Everett - Private Debt, Jay Davis - Private Equity, and Marc Peterson - Public Debt. In addition, Indraneel Karlekar, who joined the firm in 2013 as Head of Global Research, works alongside the four quadrants to supplement the investment teams. Under this structure, PrinREI maintains extensive debt and equity real estate capabilities globally, and recently strengthened these capabilities by acquiring INTERNOS (now Principal Real Estate Europe), a pan-European private real estate specialist.

The compensation plan for investment professionals consists of a base salary and two variable components. The first variable component, constituting approximately 60% of variable compensation, is an incentive bonus based on rolling one-, three-, and five-year performance. The second component is a discretionary bonus tied to the business unit of the respective investment professionals. This compensation framework is designed to align team members with client interests by rewarding them, based on their contributions and team results, to the success and growth of the business. A portion of senior members' variable compensation is deferred in the form of direct investments in equity funds or Principal Financial Group restricted stock with three-year vesting schedules.

Kelly Rush, CIO of Global Real Estate Securities, has led the Global Real Estate Equity product since its launch in 2007. He is supported by two other Global PMs, Tony Kenkel, located in Chicago, and Simon Hedger, located in London. Together, the Global PMs are extremely experienced and possess over 95 years of combined real estate experience. This Global PM team is supported by five Local PMs and seven analysts located in the firm's offices in Des Moines (4 individuals in total), Chicago (4), London (3), Sydney (1), and Singapore (3) for a total of 15 investment professionals worldwide.

The global team was largely stable until recent years. In 2013, the team lost North American PM Matt Richmond, Asia-Pacific PM Alastair Gillespie, and Asia-Pacific analyst Alvin Chan, all to competitors. Mr. Richmond was replaced through the promotion of Keith Bokota from analyst to PM, Mr. Gillespie was replaced by new hires Shern-Ling Koh and Julian Mittag as co-PMs, and Mr. Chan was eventually replaced by analyst Eileen Goh, hired roughly one year later. After this span of turnover, the team began adding depth globally to prevent similar situations in the future. In 2013, Janine Yoong was hired as a portfolio manager and is based in Sydney. More additions came in 2014 when analysts John Minor and Matt Schilling were added to the North American team, and associate analyst Jay Jakhani was added in London. In 2015, Sydney-based analyst Benita Ong departed after eight years with the firm, but she was quickly replaced by analyst Ying Luo, also in Sydney. In 2016, analysts Cesar Bracho and Joseph Kearney were hired in Des Moines and London, respectively, but the previously mentioned analysts Mr. Minor, Mr. Jakhani, and Ms. Luo all departed in 2017 after 2-3 years with the team. Most recently, Dov Hellman joined in 2018 as a seasoned analyst in the Chicago office.

Overall, the size and experience of the team is viewed positively as the 15-person team averages over 10 years of experience for analysts and over 20 years for PMs. That being said, the number of departures witnessed since 2013 is notable and is something Wilshire continues to monitor. While the recent departures have consisted of newer members of the team and the Global PMs have been stable since inception, Wilshire would negatively view the loss of several senior investors in a short timeframe.

	Rating									
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	A		B		C		D		F	

Principal Real Estate Investors

Global Real Estate Equity Securities (REIT)

	Rating Decile	Weight
II. Information	1st	20%

Information gathering is performed with the goal of performing deep, fundamental research to uncover views that differ from consensus. With the exception of lead PM Kelly Rush, each member of the team is an analyst and is responsible for generating company-specific research in his/her respective region. Typical sources of information include financial statements, management meetings, and property inspections. Company-related information is also sourced from the team's network of contacts within the industry. The vast majority of research is generated in-house, with the ability to utilize information produced by the other public and private teams in the firm's four quadrant structure. Until recently, these internal resources were primarily U.S.-focused as the firm was lacking in non-U.S. private capabilities, but this changed in 2018 through the acquisition of INTERNOS (now Principal Real Estate Europe), a pan-European private equity specialist.

In performing research, the team utilizes a proprietary model, the Global Research Platform (GRP), to manage information and rank all stocks objectively on performance potential. The model relies solely on fundamental factor inputs from the firm's internal teams, as well as from external data sources such as FactSet, Worldscope, Compustat, QSG, SNL Securities, and First Call. Each security is then assigned a quantitative rank as a result of its fundamentals, relative value, and potential catalysts for the team to use as a guide for where to spend time performing bottom-up research.

Overall, the team itself performs diligent research in addition to what is provided to them from the other private equity, private debt, public equity, and public debt resources internally. Information gathering rates above-average relative to global real estate peers.

	Rating Decile	Weight
III. Forecasting	1st	20%

The process begins with an investable universe consisting of all FTSE EPRA/NAREIT Developed Index securities, as well as global securities issued by companies that derive at least 50% of their assets, income, or revenue from real estate related activities (typically an additional 700 names).

Deep fundamental research is then performed with a focus on risk-adjusted relative value at the regional level. Security valuation is primarily determined through a net asset value (NAV) process that examines both absolute and relative valuations on a levered and unlevered basis. The absolute valuation premium or discount to where a stock is trading is important, but the unlevered NAV relative to regional peers is crucial to finding mis-pricings for the team. Occasionally, price multiples or a DCF analysis is used to determine valuation, but these usually just provide a check on the primary NAV-based approach.

The fundamental research is coupled with the quantitative model ranking as described above to drive security selection. Analysts assign separate ratings to the management, business strategy, exposure, corporate governance, and other categories, to come to a blended single rating for every security. Securities chosen for investment are presented by the respective analyst to the PM team who makes a determination of the relative value of the security in the context of the global portfolio. Strategic, top-down direction is determined by the Global PM team by considering the macro outlook, valuation levels, and general security trends, but bottom-up security selection is expected to contribute over 75% of the portfolio's alpha.

The process is heavily dependent on the analysts' qualitative inputs, which is slightly concerning given the analyst turnover witnessed in recent years. However, we believe the firm's access to and ability to produce deep, fundamental research is above-average compared to peers. To this point, the strategy continues to produce attractive long-term performance with stock selection being the primary contributor. Overall, forecasting receives a very high rating.

Principal Real Estate Investors

Global Real Estate Equity Securities (REIT)

	Rating Decile	Weight
IV. Portfolio Construction	1st	20%

The PrinREI Global Real Estate Securities portfolio, typically consisting of 85-95 holdings, strives to outperform the FTSE EPRA/NAREIT Developed Index by at least 200 bps over rolling three-year periods with tracking error of less than 300 bps. The team builds its portfolio from the bottom-up, but incorporates relatively tight risk controls relative to the benchmark to remain focused on stock selection. Country and individual stock weightings are limited to +/- 5% of the index, and sectors are limited to +/- 15% of the index. In reality, these exposures are even closer to the index than the ranges would imply, with individual securities typically +/- 2% of their index weighting and countries and sectors within +/- 3% and +/- 5%, respectively. Non-index securities are typically around 5% and typically are very high conviction emerging market securities when held.

Position sizes are determined by comparing the team's conviction in a security versus its expected volatility. These two determinations are made subjectively by the PM team, but based on their assessment a weighting matrix is then employed to determine the size of the active weight. Securities with the highest conviction and lowest expected volatility receive the largest active weights, while securities with the lowest conviction and highest expected volatility are given the lowest active weight, assuming they are even purchased at all.

The firm uses APT and internally developed tools for risk analytics to assess the sources of risk in the portfolio. Tony Kenkel, Global PM, is formally responsible for risk monitoring and management. Currency forwards are used to hedge the active currency risk within the portfolio; however, this is done infrequently and to a low degree only when meaningful risk is present for a sustained period. Despite this, currency hedging is a unique aspect of the portfolio construction process, as most Global REIT managers do not employ hedges to currency exposures.

Overall, the portfolio construction process is clear and repeatable, employing the use of guidelines and processes that align with the team's focus on bottom-up stock selection. For these reasons, portfolio construction rates highly.

	Rating Decile	Weight
V. Implementation	1st	10%

PrinREI's implementation allows for 24-hour trading capabilities from its roughly 10-person trading team located in Des Moines and Singapore. This team is tasked with trading for all PrinREI products, but is still very deep and located in the major markets. Additionally, the team averages over 20 years of trading experience. In-line with the global REIT market (50-60% U.S. securities), five of the traders are located in Des Moines while the Europe and Asia trading is performed in Singapore.

The trading desk employs the Charles River Investment Management System as their single trading and compliance tool. This system interacts with the firm's PORTIA accounting system to monitor trades and portfolios for compliance. The traders also use the Newport and Triton execution management systems to manage orders and measure trading costs real time.

Capacity is determined across all strategies managed by the team, not just on a product by product basis. With the current size of the real estate universe, the team believes they can manage $20B in assets across all products they run. At current asset levels, this leaves the team with roughly $5B in capacity. Annual turnover is expected to range between 50-100%. PrinREI participates in soft-dollar arrangements that have historically resulted in soft dollar commissions between 12-18%, although it is unclear how reliant the specific REIT team's research efforts are on these relationships.

The team's global trading presence, combined with ample trading systems and backed by the resources of the broader firm, result in an above-average rating for implementation relative to peers.

	Rating Decile	Weight
VI. Attribution	3rd	10%

Performance attribution is conducted using FactSet Portfolio Analysis software. Attribution is run on a weekly, monthly, quarterly, and ad-hoc basis to evaluate the origin of excess return as well as the active risks taken to achieve those returns. Attribution results are primarily used to review the portfolio and monitor its overall tracking error. In addition, proprietary systems and tools from Advanced Portfolio Technologies (APT) are utilized to monitor common factor risks in the portfolio. These tools are used to monitor multiple style risks, such as size, liquidity, growth vs. value, etc., all with the intent of focusing on individual stock selection to drive the majority of risks and returns.

Relative to peers, attribution rates above-average due to the team's overarching focus on risk mitigation which is supported through this process.

	Rating									
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	A		B		C		D		F	

Principal Real Estate Investors

Global Real Estate Equity Securities (REIT)

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Manager Research

Fort Washington Investment Advisors, Inc.

High Yield Fixed Income

	Rating Decile	Weight
Summary	3rd	100%

The High Yield Fixed Income Strategy aims to outperform the Bloomberg Barclays U.S. Corporate High Yield Index by 50-75 basis points, per annum, over a full market cycle. Fort Washington High Yield is designed for mandates seeking a higher quality bias (no CCC-rated bonds). The product would also be suitable in a broader mandate if paired with another manager that will opportunistically invest in the lower-rated part of the universe. The team targets the highest quality segment of the high yield universe through eliminating risky credits based on industry outlook, macroeconomic and regulatory outlook, and structural avoidance. In general, the process is expected to lead to outperformance in very weak credit environments when default rates spike or spreads widen.

	Rating Decile	Weight
I. Organization	2nd	20%
Firm	*2nd*	*50%*
Team	*2nd*	*50%*

Founded in May 1990, Fort Washington Investment Advisors is a wholly-owned subsidiary of Western & Southern Financial Group (W&SFG) and is headquartered in Cincinnati, Ohio. Maribeth Rahe (President & CEO) and Nicholas Sargen (Chief Economist) have been with the firm since 2003 and are responsible for the day to day business and investment operations of the firm. In 2015, Brendan White and Roger Lanham became the Co-CIOs when Steven Kreider decided to take a step back and act as a consultant to the firm. Steven Kredier was hired in 2014 to run the business, but was commuting from the east coast: although the CIO transitions are not positive, we feel the business is in good shape with White and Lanham. W&SFG gives Fort Washington complete operating and investment autonomy; although a five year business plan is reviewed annually by W&SFG to help allocate resources to support the firm's growth. Firm assets are roughly $52.1 billion as of 3Q2018.

Compensation includes a base salary, annual performance bonuses, and a long-term incentive plan. Variable compensation for both portfolio managers and analysts comes in the form of cash bonuses based on performance of individual stock picks relative to their sector, relative performance of the overall team, and performance of the firm. A long-term retention program was established in 2000 and provides key employees with units of W&SFG that cliff vest over 7 years. A defined benefit retirement plan is also available to employees which is unique in the investment management industry. In addition to the defined benefit plan, Fort Washington matches up to 50% of employee contributions in the defined benefit plan. Overall, the firm rates above average for its stability and its loyalty to its employees.

Co-CIO Brendan White leads the investment team and is supported portfolio managers Timothy Jossart and Garrick Bauer along with seven credit analysts and a trader. The team usually hires experienced professionals with the interest of being career analysts. The team has historically been very stable, although they had a Senior Analyst retire in 2018 who was replaced by Jonathan Westerman. In addition to Mr. Westerman, the team has added 3 analysts over the past 5 years. The culture is positive and all team members seem engaged and motivated. The team receives positive marks due to its stability and depth, and the firm benefits from the autonomy and capital commitments given by its parent company.

Fort Washington Investment Advisors, Inc.

High Yield Fixed Income

	Rating Decile	Weight
II. Information	2nd	20%

The team has followed the same investment process since 1994. Analysts must complete sector reviews twice and year along with force ranking the issuers within their sectors. They must include the relevant names and must tell the PMs how much they would over/underweight their sector. Each analyst covers roughly 10-12% of the issuers within the index, which is a manageable number given Fort Washington's focus on higher quality issuers. In addition to BB and B names, the team also covers BBB names, giving them a wider breadth of coverage within an industry. About 85% of research is conducted internally as analysts use public information from SEC filings as well as external research from the street to help build their credit models. Communication to corporate management is required at least once a quarter. Over the years, the investment team has established a number of contacts to help them monitor the market and identify good opportunities. The team leverages the firm's equity analysts who provide sector and industry insights regarding a company’s management, corporate governance and strategies. The investment grade team at Fort Washington provides valuable macro economic inputs used in industry analysis. Bloomberg and Barclays POINT supply software for portfolio analytics and monitoring. The incorporation of macroeconomic inputs from the investment grade team and the additional data provided by the equity team give the firm above average marks.

	Rating Decile	Weight
III. Forecasting	3rd	20%

Fort Washington employs both macroeconomic and security forecasts when building portfolios. The high yield team develops an economic outlook using the investment grade team’s forecasted inputs into their process. The team systematically underweights certain industries that are structurally volatile or are expected to have poor free cash flow generation during economic slowdowns. Credit analysis is focused on how an issuer will perform under stress over a 3 to 5 year time horizon rather than in the near term. Recommendations are evaluated based on a number of inputs without using a scoring system, so the team can concentrate on the qualitative aspects of their research. An assessment of industry dynamics, management quality, capital structure, and liquidity are some factors that are considered. Credit analysts merge their research regarding an issuer’s financial strength, liquidity, and covenants with the equity analyst’s research concerning management and the overall industry landscape. All recommendations and updates are reviewed by the firm’s credit committee which meets twice a week to assure that the philosophy and process are being applied appropriately, and again reviewed before entering the portfolio. The team targets the highest quality segment of the high yield universe through eliminating risky credits based on industry outlook, macroeconomic and regulatory outlook, and structural avoidance. In general, the process is expected to lead to outperformance in very weak credit environments when default rates spike; however, returns have been challenged over the recent market cycle and downside protection has not been as strong as one would expect given the process.

	Rating Decile	Weight
IV. Portfolio Construction	2nd	20%

Between 150 and 250 issues are used to build a portfolio around macro economic and sector themes to take advantage of the economic cycle out of roughly 350 covered by the analysts. Risk is measured by the product in absolute terms rather than relativity. Sector exposures range between 0-20%, averaging 5%. By appropriately weighting specific issuers, the portfolio manager is able to manage credit risk by limiting securities rated below BB to 2.5% and allowing higher rated names to have a 4% exposure, though exposures are generally between 1% and 1.5%. CCC-rated securities are never considered for purchase, but in the case of downgrades, they can be held based on PM's discretion. The omission of higher yielding CCC bonds tends to create portfolios with lower yields than that of the benchmark, but also presents a lower chance of default. Portfolios are constructed with only cash-pay high yield securities. Out-of-benchmark securities such as emerging market debt, non-dollar, foreign issuers, or bank loans are rarely purchased. The lack of CCCs and the team’s willingness to invest in BBB names will lead the strategy to deviate from the broader market. Dramatic drops in stock or bond price, changes in management strategy, deteriorating fundamentals, or better relative value opportunities will cause the team to reevaluate the bond before deciding to sell. Through structural avoidance of riskier securities and careful position sizing, the team takes a thoughtful approach to constructing portfolios. Systematic credit risk is managed through the calculation and monitoring of internally generated B equivalent spread duration at the issue, sector and portfolio level. This is the index equivalent spread duration of a bond to the HY B Index. Fort Washington caps issuer specific exposure to 10 basis points for a 100 basis point move in the B-equivalent spread for the issuer. Fort Washington's portfolio performed as expected during the high yield sell off of late 2018. Portfolio construction was upgraded due to Fort Washington's integration of sound risk management metrics along with stress testing.

Fort Washington Investment Advisors, Inc.

High Yield Fixed Income

	Rating Decile	Weight
V. Implementation	4th	10%

Trading is handled by the dedicated trader, Matt Jackson. Bloomberg trade order management systems are used to allocate trades and also serves as a pre-trade and post-trade compliance system for the investment team. The firm conducts periodic reviews of brokers to assess quality of executions, commission rates and overall relationships. As the team wants to keep portfolios concentrated enough to add value from credit selection, the High Yield strategy is subject to a capacity cap of 1% of the high yield market (approximately $12 billion as of 12/31/18). Current AUM is $3.1 billion. Overall, the firm receives an above average score in implementation due to their recognition of its liquidity conditions and ability to be nimble due to the AUM.

	Rating Decile	Weight
VI. Attribution	3rd	10%

The team has a risk officer who oversees performance result on a daily basis. The team uses Barclays POINT to monitor performance relative to the benchmark. Detailed attribution studies can be generated on a timely manner where portfolio managers review them to assess the success of their security selections, quality of over/underweights, and sector tilts. In addition, the team has a set of stress tests and risk guidelines that it tracks. Central to the investment process is the monitoring of B-Equivalent spread units at the portfolio, sector, and issuer level. The team also shocks the portfolio for recession risk regularly by assuming that spreads widen 300 basis points. Fort Washington's insurance legacy shines through in the attribution feedback loop it follows. Because of the detail for which it tracks risk, the category has an above average rating.

	Rating									
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	A		B		C		D		F	

Fort Washington Investment Advisors, Inc.

High Yield Fixed Income

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Manager Research

T ROWE PRICE ASSOCIATES INC

T Rowe Price Balanced Fund, Inc

	Rating Decile	Weight
Summary	1st	100%

T. Rowe Price offers an attractive balanced fund that is risk-controlled with an approximate target of 65% Equity/35% Fixed Income exposure. The portfolio is split into several different sleeves, each of which is managed by senior investment professionals that have delivered strong long-term performance in their stand-alone strategies. The firm's Asset Allocation Committee has the latitude to tweak the fund's positioning around the target weights, but this is performed in a very risk-controlled incremental manner as the Committee does not attempt to time the market. Compared to some of the firm's other multi-asset class strategies which can be more opportunistic, the Balanced Fund seeks to serve as a core holding with relatively low tracking error. Overall, the fund has produced competitive investment returns with relatively low tracking error to the fund's custom benchmark over long-term periods.

	Rating Decile	Weight
I. Organization	1st	20%
Firm	*1st*	*50%*
Team	*1st*	*50%*

Founded in 1937, T. Rowe Price represents one of the largest multi-product investment management firms with a significant presence in both the institutional and retail mutual fund markets. The firm has a diverse product lineup which includes equity, fixed income, and asset allocation capabilities. T. Rowe Price has built a global research platform with investment professionals located in various offices around the world. Approximately 80% of the firm's employees are shareholders in the company and combined with vested but unexercised options own approximately 15-20% of the firm's publicly traded equity (TROW). The firm has established a competitive franchise in both investment management and distribution due to its conservative culture and high emphasis on fiduciary standards.

T. Rowe Price has developed a good reputation for recruiting and retaining talented investment professionals throughout the organization. In terms of compensation for investment professionals, the firm provides a modest base salary and a performance bonus that can be multiples of the base salary. The firm also offers stock options and restricted stock to certain investment and key senior professionals. Restricted stock and options vest over a five-year period. Bonuses are tied closely to performance for both portfolio managers and research analysts, with an emphasis on three- and five-year relative and risk-adjusted results.

The Balanced Fund is managed by Charles Shriver who has been with T. Rowe Price since 1991. Mr. Shriver became co-PM of the fund effective May 1, 2011 and became lead PM during October 2011 as part of a planned transition from the previous PM, Ned Notzon, who retired at the end of 2011. Mr. Shriver had worked closely with Mr. Notzon for more than 15 years on the firm's asset allocation capabilities prior to taking over as PM of the strategy.

The fund is split into several investment sleeves, each of which is managed by an experienced portfolio manager. The equity allocation is divided into five sleeves, which are managed by Ann Holcomb, Jason Polun, Thomas Watson (core), Larry Puglia (growth), Mark Finn (value), Ray Mills (non-U.S.) and Wyatt Lee (real assets); and the fixed income allocation includes two sleeves, which are managed by Rob Larkins (investment grade bond) and Mark Vaselkiv (high yield). In addition, the firm's Asset Allocation Committee, which is comprised of over 10 of the firm's senior investment professionals, assist with portfolio positioning. The firm also boasts a deep team of analysts within both equity and fixed income. Compared to other large firms with deep analyst staffs, the firm has experienced a small amount of turnover, which is a testament to the organization and the investment culture.

Overall, this product receives a strong score from an organizational perspective. The quality and stability of the various product teams are top-notch, and the ownership incentives are stronger than most peers. The firm is strongly committed to both the retail and institutional marketplaces and has a consistent valuation-conscious theme across the entire organization.

T ROWE PRICE ASSOCIATES INC

T Rowe Price Balanced Fund, Inc

II. Information

Rating Decile	Weight
1st	20%

Information gathering for the Balanced strategy starts with the impressive analyst staff the firm has assembled in both equity and fixed income. T. Rowe currently employs over 200 Equity and Fixed Income analysts. Throughout the firm, bottom-up fundamental analysis is the key to the philosophy and process. Equity analysis typically focuses on balance sheet strength, sound operations, and a management team that is capable of executing a focused business strategy. Each analyst covers 30-50 companies and conducts multiple face-to-face meetings with the company, including on-site visits which forms the core of the research process. Fixed income analysts have access to the research produced by the firm's equity research staff and often travel with the equity analysts to take part in the on-site company visits. Contact with an issuer is maintained throughout the life of the investment to continue to assess potential shifts in earnings and/or cash flow.

Overall, T. Rowe Price possesses a very strong information gathering effort grounded in direct first-hand research revolving around direct contact with company management. As a result, the firm scores high in information gathering.

III. Forecasting

Rating Decile	Weight
1st	20%

The forecasting process for the Balanced fund is twofold: asset allocation and sleeve-specific security selection. The "neutral" asset allocation for the firm is 65% equity (US, Non US, and Real Assets), and 35% fixed income (including High Yield). The firm's Asset Allocation Committee has latitude to tilt the portfolio +/- 10% around these neutral allocations (though rarely exceeds 5-6%) and also can tilt the portfolio modestly toward growth or value. The Committee meets each month to discuss the market environment and determine which segments of the market offer the most attractive risk/reward potential. Much of the positioning changes stem from relative value analysis.

Each of the fund's investment sleeves has a different approach to security selection and alpha generation. The large cap value portfolio looks for stocks trading at the low end of their historical range versus the overall market and that possess a catalyst for revaluation. The large cap growth sleeve is GARP-y in approach and looks for large, stable, blue chip companies trading at a discount to intrinsic value. The large cap core sleeve is run by the firm's analysts and is enhanced index in approach – looking to add modest value versus the market solely through security selection. The international piece of the fund uses a core approach with a conservative usage of emerging markets. The investment grade fixed income portion of the fund takes very small bets against the BarCap Aggregate Bond index and aims to add incremental value over the index. Finally, the high yield portfolio is based on in-depth credit analysis and uses a proprietary rating system to forecast future returns with a focus on the B/BB space. As a more recent enhancement, the team initiated an allocation to Real Assets to improve the real risk and return profile in scenarios of high or rising inflation.

Overall, the forecasting process is disciplined and intuitive, and each of the underlying product teams have demonstrated the ability to add value over the long-term. For these reasons, the fund scores above average in forecasting.

IV. Portfolio Construction

Rating Decile	Weight
2nd	20%

Portfolio construction is another strong aspect of this fund. While the Asset Allocation Committee has the latitude to tilt the portfolio toward what they deem to be particularly attractive asset classes or styles, they do so in small incremental steps that ensures security selection is the main driver of relative performance. The Committee meets each month to review portfolio positioning and assess the risk of the portfolio. The "neutral" asset allocation for the firm is 65% equity (43.5% US, 18% Non-US, and 3.5% Real Assets), and 35% fixed income (31% Investment Grade, 4% High Yield). The portfolio will have modest (up to 6-7%) exposure to emerging markets through the non-US sleeve. Relative to this fund's custom benchmark (45% S&P 500, 20% MSCI EAFE, 35% BarCap Aggregate Bond), the tracking error of the portfolio has historically been relatively low. Overall, the product scores above average in portfolio construction.

T ROWE PRICE ASSOCIATES INC

T Rowe Price Balanced Fund, Inc

	Rating Decile	Weight
V. Implementation	5th	10%

T. Rowe Price has considerable resources for equity and fixed income trading, where most of the traders have significant trading backgrounds and experience. The firm has invested heavily in trading systems, using Charles River for automated pre-trade compliance monitoring and order management. The overall trading philosophy emphasizes below average turnover, which cuts down on transaction costs and market impact. However, AUM across the firm and especially within domestic equity is extremely high, so the product may not be as nimble as some of its peers. The firm does use soft dollars, but they are used in a very limited capacity and must undergo full review by the firm's Brokerage Control Committee. Overall, because of the firm's significant AUM in domestic equity, the product receives only an average implementation score.

	Rating Decile	Weight
VI. Attribution	3rd	10%

T. Rowe Price has developed an in-house performance attribution system that allows the team to capture the sources of returns for this fund at each level of portfolio construction: asset class decisions, sector/industry decisions, security selection, and rebalancing. The output of this attribution is reviewed by the allocation committee on a monthly basis to help inform the team's positioning and rebalancing decisions. Overall, the firm's use of attribution is very solid and receives an above average score.

	Rating									
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	A		B		C		D		F	

T ROWE PRICE ASSOCIATES INC

T Rowe Price Balanced Fund, Inc

Important Information

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Manager Research

T. Rowe Price

QM US Small-Cap Growth Equity Strategy

Summary

	Rating Decile	Weight
Summary	3rd	100%

T. Rowe Price's QM Small Cap Growth strategy provides clients with a diversified, lower tracking error small cap growth mandate. The strategy typically holds 300-320 stocks and annual portfolio turnover has been low at 15-30%. The product incorporates a quantitative investment model with the firm's broader fundamental research resources. The quantitative model ranks stocks on a variety of factors, including valuation, profitability and capital usage, earnings quality, and momentum. While this strategy is not as large as the firm's other small cap growth strategies, there is notable overlap in names. The firm has over $20 billion in assets under management within its small cap growth products and all products, including the QM Small Cap Growth strategy are now essentially closed to new investors.

	Rating Decile	Weight
I. Organization	1st	20%
Firm	*1st*	*50%*
Team	*1st*	*50%*

Founded in 1937, T. Rowe Price represents one of the largest multi-product investment management firms with a significant presence in both the institutional and retail mutual fund markets. The firm has a diverse product lineup which includes equity, fixed income, and asset allocation capabilities. T. Rowe Price has built a global research platform with investment professionals located in various offices around the world. Approximately 80% of the firm's employees are shareholders in the company and combined with vested but unexercised options own approximately 15-20% of the firm's publicly traded equity (TROW). The firm has established a competitive franchise in both investment management and distribution due to its conservative culture and high emphasis on fiduciary standards.

T. Rowe Price has developed a good reputation for recruiting and retaining talented investment professionals throughout the organization. In terms of compensation for investment professionals, the firm provides a modest base salary and a performance bonus that can be multiples of the base salary. The firm also offers stock options and restricted stock to certain investment and key senior professionals. Restricted stock and options vest over a five-year period. Bonuses are tied closely to performance for both portfolio managers and research analysts, with an emphasis on three- and five-year relative and risk-adjusted results.

The QM Small Cap Growth strategy is managed by Sudhir Nanda, who is also the Head of Quantitative Equity Research for T. Rowe Price. While Mr. Nanda is responsible for all investment decisions, he collaborates with the other members of the strategy's Investment Advisory Committee, which includes Don Easley, Curt Organt, and David Wagner. On a day-to-day basis, Mr. Nanda is supported by nine quantitative analysts: Prashant Jeyaganesh, Vidya Kadiyam, Farris Shuggi, Vinit Agrawal, Navneesh Malhan, Erik von Heijne, Jordan Pryor, George Gao, Ph.D., and Yuyuan Zhu, Ph.D.. This team has grown considerably over the past few years, with Mr. Gao and Mr. Zhu being notable recent additions. Mr. Nanda also utilizes the resources of the firm's stable of over 100 industry analysts.

T. Rowe Price

QM US Small-Cap Growth Equity Strategy

	Rating Decile	Weight
II. Information	4th	20%

The QM Small Cap Growth Fund adheres to a quantitative investment approach; however, the fundamental analysis conducted by the firm's vast research platform supports the quantitative research. The quantitative model receives data from outside venders and stresses common factors such as free cash flow yield, forward P/E, and EV/EBITDA. In terms of fundamental research, the firm's sector-specific analysts conduct over 5,000 on-site visits a year and complement these visits with telephone conversations, participation in conference calls, and attending industry and investment conferences. In addition, the firm hosts over a 1,000 company meetings in their offices annually. The analysts primarily meet with senior- and mid-level managers but will also meet with competitors and various stakeholders up and down the supply chain to truly assess a company's position in the marketplace. During these visits, the analysts focus on gathering information about the viability and sustainability of a company's business model; the quality of the management team and alignment of interests with shareholders; and the company's financial position as well as the drivers and obstacles to continued financial success. Each of the firm's analysts are responsible for creating 3-5 year forecasts for 25-40 companies and for issuing a 1-5 rating on each company falling under their coverage. The firm has deepened it quantitative resources in recent years and the support of the firm's strong fundamental research platform brings the score in this category to above average.

	Rating Decile	Weight
III. Forecasting	1st	20%

The strategy primarily invests in small cap growth companies that fall within the market capitalization range of the MSCI US Small Cap Growth Index. The investment process incorporates quantitative analysis with a fundamental overlay. The majority of the process uses quantitative methods to identify and rank stocks based primarily on factors in four broad categories:
- Valuation - (free cash flow yield, forward P/E, EV/EBITDA, etc.)
- Profitability and Capital Usage - (high ROE, efficient capital expenditures, stock buy backs and dividend policy, etc.)
- Momentum - (price momentum, earnings revisions, etc.)
- Earnings Quality - (cash flow exceeds income, increase in current assets is not excessive, etc.)

The model ranks stocks from 1 to 10. Stocks rated 1-3 are purchase candidates, with stocks rated 6-10 being sell candidates. Ranking is performed daily, with the model producing a list of potential buys and sells. Prior to purchasing a name, PM Sudhir Nanda will evaluate the research conducted by the firm's fundamental analysts. Mr. Nanda will also discuss individual names with the firm's other small cap portfolio managers.

The strategy adheres to a well-structured investment process. The trailing five- and three-year relative performance of the product has been favorable, with stock selection being the primary contributor to performance. The strategy has historically maintained a higher market cap orientation than other small cap growth strategies. This has benefitted recent performance, but it can negatively impact performance when smaller cap names are outperforming.

	Rating Decile	Weight
IV. Portfolio Construction	4th	20%

The objective of the QM Small Cap Growth Fund is to outperform the MSCI Small Cap Growth Index, with a moderate to low tracking error of 2-3%. The portfolio is highly diversified, typically holding between 300-320 stocks. Individual positions are typically capped at 1%. The portfolio is broadly sector neutral, with the goal of adding alpha primarily through stock selection. It is important to note that the strategy will maintain a slightly higher market cap orientation than many peers within the small cap growth space.

In terms of risk management and portfolio monitoring, TRP utilizes tools such as Barra Aegis, StyleADVISOR, and a reputable third party attribution system to regular monitor tracking error and other portfolio characteristics. While this strategy is not as large as the firm's other small cap growth strategies, there is a significant overlap in names. Capacity management should be monitored closely as assets between the small cap growth strategies are over $20 billion.

T. Rowe Price

QM US Small-Cap Growth Equity Strategy

	Rating Decile	Weight
V. Implementation	5th	10%

T. Rowe Price has approximately 25 equity traders with an average of over 15 years of trading experience. The firm utilizes the Macgregor Financial Trading Platform for their order management system and for pre-trade compliance. Once inputted into the system, the trade is placed with a broker via telephone or through one of the over 100 FIX connections on the Macgregor network. To minimize trading costs, T. Rowe searches out alternative pools of liquidity and adapts their style, approach, and venue where appropriate. The firm trades with more than 200 regional and national broker-dealers, including several ECNs and alternative sources of liquidity. The firm internally monitors execution costs and subscribes to ITG for third-party transaction cost analysis. The QM Small Cap Growth Fund has turnover of 15-30% per year, which is low relative to its peer group. While T. Rowe Price has impressive trading resources, the significant amount of assets managed by the firm in the small cap growth space presents some challenges. The product receives an average implementation score.

	Rating Decile	Weight
VI. Attribution	3rd	10%

The portfolio management team uses a series of comprehensive, daily, weekly, and monthly reports to monitor the risk factors, style consistency, portfolio characteristics, and to attribute performance of the portfolio. These reports are generated through a combination of internal and external systems, including the Barra Aegis risk model, Zephyr StyleADVISOR, and a reputable third party attribution system. These tools are primarily used to monitor risk factors such as security weights, sector weights, market capitalization, MPT statistics, and valuation measures versus the benchmark. In addition, each analyst is measured on their own predictive capabilities which are used to determine, in part, the compensation of each analyst. Formal risk meetings between the Investment Risk Management Group and portfolio managers typically occur on a monthly cycle (at the portfolio manager's discretion).

	Rating									
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	A		B		C		D		F	

T. Rowe Price

QM US Small-Cap Growth Equity Strategy

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Manager Research

T. Rowe Price

US Large-Cap Growth Equity Strategy

	Rating Decile	Weight
Summary	2nd	100%

The T. Rowe Price US Large-Cap Growth strategy is one of three large cap growth strategies offered by the firm. Relative to the firm’s other large cap growth offerings, this strategy is more concentrated and has a slightly higher growth profile. The product is currently managed by Taymour Tamaddon, who took over as the lead portfolio manager from Rob Sharps at the end of 2016. Mr. Sharps transitioned off of the strategy after he was promoted to the role of co-head of Global Equity. Mr. Sharps remains as a member of the Advisory Committee for the Large-Cap Growth strategy. The product leverages the insights of the firm’s other large cap growth portfolio managers and deep research analyst platform. The investment process results in a moderately diversified portfolio of 50 to 70 stocks, with annual turnover ranging between 50% and 70%.

	Rating Decile	Weight
I. Organization	1st	20%
Firm	*1st*	*50%*
Team	*1st*	*50%*

Founded in 1937, T. Rowe Price represents one of the largest multi-product investment management firms with a significant presence in both the institutional and retail mutual fund markets. The firm has a diverse product lineup which includes equity, fixed income, and asset allocation capabilities. T. Rowe Price has built a global research platform with investment professionals located in various offices around the world. Approximately 80% of the firm’s employees are shareholders in the company and combined with vested but unexercised options own approximately 15-20% of the firm’s publicly traded equity (TROW). The firm has established a competitive franchise in both investment management and distribution due to its conservative culture and high emphasis on fiduciary standards.

T. Rowe Price has developed a good reputation for recruiting and retaining talented investment professionals throughout the organization. In terms of compensation for investment professionals, the firm provides a modest base salary and a performance bonus that can be multiples of the base salary. The firm also offers stock options and restricted stock to certain investment and key senior professionals. Restricted stock and options vest over a five-year period. Bonuses are tied closely to performance for both portfolio managers and research analysts, with an emphasis on three- and five-year relative and risk-adjusted results.

T. Rowe offers three different U.S. large cap growth strategies (Growth Stock, Large-Cap Core Growth and Large-Cap Growth). The broader Large Cap Growth PM team consists of Taymour Tamaddon, Larry Puglia, Joe Fath, and David Rowlett. While all research ideas and key information are vetted by the broader PM team, Taymour Tamaddon is currently the named portfolio manager and solely responsible for all investment decisions related to the Large-Cap Growth strategy. David Rowlett, who had been a senior research analyst with the firm, is an associate portfolio manager on the Large-Cap Growth strategy.

The team experienced a significant change when the former lead portfolio manager on the strategy, Rob Sharps, transitioned off at the end of 2016 to join the T. Rowe Price Management Committee and become the co-head of Global Equity. We have met with Mr. Tamaddon several times since the transition and have a favorable opinion of him. Importantly, Mr. Tamaddon worked alongside Mr. Sharps on the strategy in 2016 to allow for a smooth transition period. In addition, Mr. Sharps remains as a member of the Advisory Committee for the Large-Cap Growth strategy.

T. Rowe Price

US Large-Cap Growth Equity Strategy

	Rating Decile	Weight
II. Information	1st	20%

T. Rowe's approach to fundamental research encompasses the same degree of Porter's Five Force analysis that other large firms with centralized research groups engage in. The firm's sector-specific analysts conduct over 4,000 on-site visits a year and complement these visits with telephone conversations, participation in conference calls, and attending industry and investment conferences. In addition, the firm hosts over a 1,000 company meetings in their offices annually. The analysts primarily meet with senior- and mid-level managers but will also meet with competitors and various stakeholders up and down the supply chain to truly assess a company's position in the marketplace. During these visits, the analysts focus on gathering information about the viability and sustainability of a company's business model; the quality of the management team and alignment of interests with shareholders; and the company's financial position as well as the drivers and obstacles to continued financial success. Each of the firm's analysts are responsible for creating 3-5 year forecasts for 30-50 companies and for issuing a 1-5 rating on each company falling under their coverage.

Research analysts in the firm can be career analysts and most of them have extensive prior industry experience. T. Rowe's analysts have historically been accurate, which is evident by the strong performance in the U.S. equity products and research portfolios. The portfolio managers' direct involvement with the research effort gives an edge to this product as the growth team does not solely rely on one-way data feeds or recommendations from the analysts. The drawback to this effort is one of information overload where scale of coverage reduces investment focus at the product level. This risk is partially mitigated by the fact that the Large Cap Growth Portfolio Management team primarily relies on 25-40 of the analysts as primary information sources from the 100+ global analyst pool. While there has been some notable turnover over the past couple years, we continue to rank T. Rowe highly in information gathering due to the depth and the breath of the firm's research resources.

	Rating Decile	Weight
III. Forecasting	2nd	20%

As with most other growth managers, the team believes that excess returns can be found with companies growing earnings and cash flows at double digit levels. The team looks for that rare opportunity that employs both high earnings growth and strong shareholder return on capital. Relative to the other T. Rowe Price large cap growth products, this strategy tends to be more focused on secular growth stories, particularly within the technology and healthcare space. In addition, the portfolio management team is focused on trading against the short-term momentum crowd within the growth space and is willing to pay higher prices for situations where the growth is viewed as open-ended. The question is whether a company can consistently achieve abnormal earnings growth and to what extent these expectations are already embedded in the stock price. The portfolio managers and analyst team conduct traditional valuation exercises such as DCF and multiples analysis, but a lot of the judgment comes down to perceived disconnects between their models and Street expectations. The portfolio managers will diversify among different types of growth stories so that the portfolio is not just invested in momentum growth. Overall, the forecasting process is ultimately at the discretion of the portfolio manager with inputs from the analyst team on whether premiums are warranted or not. Historical performance attribution shows that value has been added from both stock selection and sector positioning over longer time periods. The process remains consistent under Taymour Tamaddon's management and relative performance remains strong.

	Rating Decile	Weight
IV. Portfolio Construction	3rd	20%

The institutional large growth strategy was launched as a means for T. Rowe to target institutional clients who demand more benchmark orientation and a focused portfolio of names. The Large-Cap Growth portfolio holds 50-70 stocks and is managed versus the Russell 1000 Growth Index. Position sizes typically range within plus or minus 5% of the active benchmark weight with sectors constrained to 0.5x to 3x the relative weighting in the benchmark. Active risk is not targeted, but is expected to be in the 4-7% range. From a style perspective the strategy tends to plot in the mid to high end of the growth spectrum and despite the fact that the firm does not use quantitative models for risk control or inputs into its buy/sell decisions, the portfolio maintains similar characteristics relative to the benchmark.

T. Rowe Price

US Large-Cap Growth Equity Strategy

	Rating Decile	Weight
V. Implementation	5th	10%

T. Rowe Price has approximately 25 equity traders with an average of 15 years of trading experience. The firm utilizes the Macgregor Financial Trading Platform for their order management system and for pre-trade compliance. Once inputted into the system, the trade is placed with a broker via telephone or through one of the over 100 FIX connections on the Macgregor network. To minimize trading costs, T. Rowe searches out alternative pools of liquidity and adapts their style, approach, and venue where appropriate. The firm trades with more than 200 regional and national broker-dealers, including several ECNs and alternative sources of liquidity. The firm internally monitors execution costs and subscribes to ITG for third-party transaction cost analysis. The Institutional Large Cap strategy has turnover of around 50-70% per year, which is moderate relative to its peer group. The firm has limited use of soft dollars. Overall, T. Rowe employs a state-of-the-art trading desk; however, assets within the large cap growth space (over $220 billion) are somewhat concerning and the firm has not formally stated an asset limit. The strategy has a fairly high level of overlap with the manager's two other large growth products, and the firm maintains notable concentration in certain holdings. The firm does monitor capacity closely and has formal allocation policies when the firm, as a whole, owns more than 7% of the float of a single company. The firm will not hold more than 18% of any single company. Currently, stocks on allocation only represent a small percentage of the Large-Cap Growth portfolio.

	Rating Decile	Weight
VI. Attribution	3rd	10%

The portfolio management team uses a series of comprehensive, daily, weekly, and monthly reports to monitor the risk factors, style consistency, portfolio characteristics, and to attribute performance of the portfolio. These reports are generated through a combination of internal and external systems, including the Barra Aegis risk model, Zephyr StyleADVISOR, and a reputable third party attribution system. These tools are primarily used to monitor risk factors such as security weights, sector weights, market capitalization, MPT statistics, and valuation measures versus the benchmark. In addition, each analyst is measured on their own predictive capabilities which are used to determine, in part, the compensation of each analyst. Formal risk meetings between the Investment Risk Management Group and portfolio managers typically occur on a monthly cycle (at the portfolio manager's discretion).

	Rating									
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	A		B		C		D		F	

T. Rowe Price

US Large-Cap Growth Equity Strategy

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Manager Research

VANGUARD GROUP INC

Vanguard Trustees' Equity Fund: Vanguard Emerging Markets Select Stock Fund

	Rating Decile	Weight
Summary	2nd	100%

Vanguard's Emerging Markets Select Stock Fund is co-managed by four high quality asset management firms, Wellington Management Company (since 2011), Pzena Investment Management (since 2011), Oaktree Capital Management (since 2011), and Baillie Gifford Overseas (since 2018). The managers' allocations are fairly equitable, with each representing close to one-fourth of the total assets of the fund. While all four subadvisor utilize fundamental, bottom-up investment processes, there is notable differentiation in their investment styles. Baillie Gifford takes a more growth-oriented approach, while Pzena takes a more classic value-oriented approach. Wellington's approach is fairly style neutral and Oaktree adheres to a relative value-oriented approach. The resulting portfolio is well diversified with approximately 250-350 holdings spread across regions, countries, and sectors. The strategy is a solid option for investors seeking a diversified, low cost mutual fund within the emerging markets equity space.

	Rating Decile	Weight
I. Organization	1st	20%
Firm	*1st*	*50%*
Team	*1st*	*50%*

Vanguard was founded in 1975 by legendary investor Jack Bogle. The firm is neither publically traded nor employee owned, but prides itself as being the only client-owned mutual fund organization in the world. It is owned by the Vanguard family of mutual funds, which are ultimately owned by their shareholders, the clients. This is a unique structure that allows Vanguard to provide services to its funds "at cost". As assets within the funds grow, the firm gains efficiencies which will ultimately result in lower fees to fund investors. Vanguard has a board of directors that ensures the funds are organized, operated, and managed in the clients' best interests. Most of these directors are independent and have no direct affiliation with Vanguard or the funds they oversee.

The organization is known as being one of the largest providers of passive investment solutions in mutual fund and ETF vehicles and has also built a reputation as being a low cost provider within this industry. Additionally, the firm has a large platform of active investment strategies primarily managed by external sub-advisors. Personnel turnover within the firm is relatively low for the size of the organization. Senior leadership has also been relatively stable with the vast majority of the senior management team being individuals who have worked for the organization for many years. There have been some senior level changes, however, including Chairman & CEO Bill McNabb, who retired at the end of 2017, and CIO Gus Sauter, who retired at the end of 2012. Tim Buckley initially replaced Gus Sauter as CIO and has now taken over for Bill McNabb as CEO. Greg Davis is now CIO of the organization.

Overall, the firm's unique ownership structure, commitment to minimizing management fees, and personnel stability within the organization have led to an organization that is well-aligned with its clients and ranks favorably.

The Emerging Markets Select Stock Fund is co-managed by four strong asset management firms: Wellington Management Company, Baillie Gifford Overseas, Pzena Investment Management, and Oaktree Capital Management. Wellington, Pzena, and Oaktree have been subadvisors on the fund since its inception in 2011. Baillie Gifford was added as a subadvisor in 2018, replacing M&G Investments. The managers allocations within the fund are fairly equitable, with each representing close to 25% of the assets. The Wellington sleeve is managed by the firm's global research analyst platform, with oversight from named portfolio managers Mark Mandel and May Pryshiak. Baillie Gifford's sleeve is co-managed by Richard Sneller, Andrew Stobart, and Mike Gush. Pzena's sleeve is co-managed by Caroline Cai, Allison Fisch, and John Goetz. Finally, Oaktree's sleeve is managed by Frank Carroll and Timothy Jensen. We maintain a high opinion of the subadvisors on this fund and each sleeve is managed by experienced, high-caliber investment teams.

VANGUARD GROUP INC

Vanguard Trustees' Equity Fund: Vanguard Emerging Markets Select Stock Fund

II. Information

	Rating Decile	Weight
II. Information	1st	20%

Wellington implements a fundamental, bottom-up, style neutral research approach to investing in emerging markets. The strategy is managed by an experienced team of fundamental research analysts, who manage individual sleeves based on their areas of coverage.

Baillie Gifford adheres to a fundamental, bottom-up, long-term growth-oriented investment approach. Through deep fundamental research, the team seeks well-managed businesses with above-average earnings growth potential.

Pzena utilizes a fundamental, bottom-up, classic value-driven approach that targets companies that are trading at low prices relative to their normalized earnings. In-depth fundamental research is conducted by all members of the investment team, with coverage divided up sectors.

Oaktree implements a bottom-up, relative value-oriented investment approach. The team travels extensively to meet with company managements and maintains detailed, proprietary cash flow models.

III. Forecasting

	Rating Decile	Weight
III. Forecasting	2nd	20%

Wellington’s forecasting process gives the global industry analysts full responsibility for selecting the securities within their respective industries. Thus, the analysts assigned to the Emerging Markets Research Equity strategy each have their own sub-portfolio of securities that they analyze and rank. Since each industry is driven by different dynamics, the forecasting process will vary from one analyst to the next.

Baillie Gifford’s investment approach is best characterized as GARP (growth at a reasonable price) and based on the assumption that share prices will follow company fundamentals over the long term, with the fastest growers of earnings and cash flow ultimately outperforming the market. For these reasons, the team takes a fairly long-term forecasting view compared to most growth-oriented managers, and is not highly concerned with shorter term momentum dynamics. Due to its emphasis on balance sheet quality, the strategy is more biased towards long-term sustainable “quality growth” than to speculative potential.

Pzena forecasting efforts seek to arrive at a proprietary estimate of normalized earnings for a company. Ultimately, the investment team seeks to own a company if it is selling at a low price relative to normalized earnings, current earnings are below historic norms, management has a rational plan for earnings recovery, the company has a history of earning attractive long-term returns, and tangible downside protection is present. While the firm’s forecasting approach is not necessarily unique relative to value investing peers, Pzena has demonstrated tremendous discipline in executing this approach in a consistent fashion throughout the entire market cycle.

Oaktree’s disciplined investment process centers around deep fundamental research. The team seeks to capture mispriced securities caused by investor behavior. The analysts will follow close to 400 companies and a detailed discounted cash flow analysis and required before a company is added to the portfolio.

Each sleeve is expected to derive the majority of its alpha from stock selection. Baillie Gifford should benefit more when growth is in favor, while Pzena should benefit more when value is in favor. Wellington and Oaktree should have less style-biased relative performance. We maintain a favorable opinion of each investment manager’s process and believe their combination in a single mutual fund solution should provide favorable results over time.

VANGUARD GROUP INC

Vanguard Trustees' Equity Fund: Vanguard Emerging Markets Select Stock Fund

IV. Portfolio Construction

Rating Decile	Weight
3rd	20%

The Emerging Markets Select Stock Fund seeks to outperform its benchmark, the FTSE Emerging Markets Index, over a full market cycle. The fund does not have specific excess return or tracking error targets. The subadvisors co-managing the fund build their respective portfolios from the bottom up, with the resulting fund portfolio being a combination of the four sleeves. As of September 2018, the allocation to each sub-advisor was as follows: Oaktree 26%, Wellington 25%, Pzena 25%, and Baillie Gifford 19%. The overall fund will typically own between 250-350 stocks diversified across regions, countries, and sectors.

Vanguard's Risk Management and Strategic Analysis (RMSA) team, which is an independent unit of the firm, enforces the daily portfolio risk management controls. This unit is mandated to work closely with the Vanguard PM teams and is tasked with understanding and managing both investment and operations risk for the overall strategy. In addition to the RMSA team performing high-level risk management, more nuanced risk management efforts are performed at the sub-advisor level by each team over their respective sleeve. While the risk management efforts of each of the subadvisors are robust in their own right, the co-managed nature of the strategy does not allow for common portfolio-level risk management practices such as pre-trade or scenario analysis that are performed by most single manager products. This is due to the lack of transparency between the subadvisors into each other's portfolios that could potentially prevent one sub-advisor from making a decision that counteracts a decision made elsewhere. Despite this, the sheer number of securities owned in the portfolio and the different investment approaches aids in risk management from a diversification standpoint. Portfolio construction efforts rate above average.

V. Implementation

Rating Decile	Weight
3rd	10%

All four subadvisors have well-established infrastructure for trading and implementation, with straight through processing, pre- and post-trade compliance, and strong back office and accounting. In addition, Vanguard's Portfolio Review Department (PRD) regularly reviews the trading policies and procedures used by the Emerging Markets Select subadvisors to select, compensate, and monitor brokers. PRD will compare the explicit and implicit brokerage costs the fund's subadvisors will incur relative to industry peers. The overall strategy tends to have fairly moderate portfolio turnover (30-50% annually). As of September 2018, assets in the strategy totaled only $612 million, so product capacity is not an issue at this time.

Implementation efforts of the strategy are most appropriately considered with respect to the abilities of the four underlying subadvisors. Each subadvisor possesses above-average implementation abilities, resulting in an above-average rating for the fund.

VI. Attribution

Rating Decile	Weight
3rd	10%

Although each fund subadvisor to the Emerging Markets Select Stock Fund has its own attribution systems and processes, Vanguard employs its own Quantitative Equity Group (QEP) to perform performance attribution for all funds on a daily basis. The group also incorporates the use of a well-known third-party system for its multifactor performance attribution feature. Attribution results are gathered as an input to the QEP's weekly strategy meetings. The purpose is to gain some insight to the funds' absolute and relative contributions to performance, as well as the detractors from returns. With regards to the subadvisors, each of the managers have above-average systems and processes for attribution efforts on their strategy. For these reasons, the fund rates above average.

	Rating									
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	A		B		C		D		F	

VANGUARD GROUP INC

Vanguard Trustees' Equity Fund: Vanguard Emerging Markets Select Stock Fund

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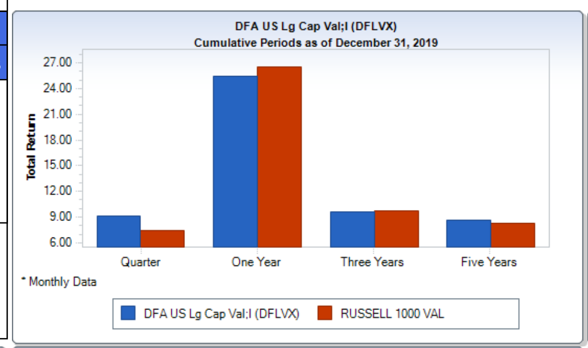
V. Direct Plan Fact Sheets

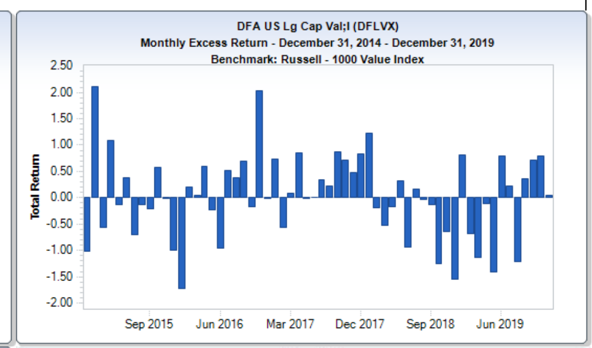
Performance Fact Sheet: DFA US Lg Cap Val;I (DFLVX)

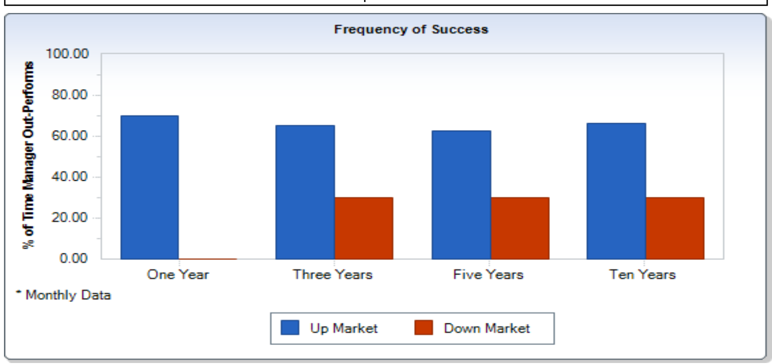
Fund Family:	DIMENSIONAL FUND ADVISORS LP	Net Assets ($MM):	$26,980.50
Asset Class:	U.S. Equity	Expense Ratio:	0.27
Style Category:	Multi-Cap Value Funds	Front Load:	
Objective Category:	GROWTH & INCOME	12B-1 Fee:	
Ticker:	DFLVX	Turnover:	13.00
Share Class:	I	Mgr Tenure:	8

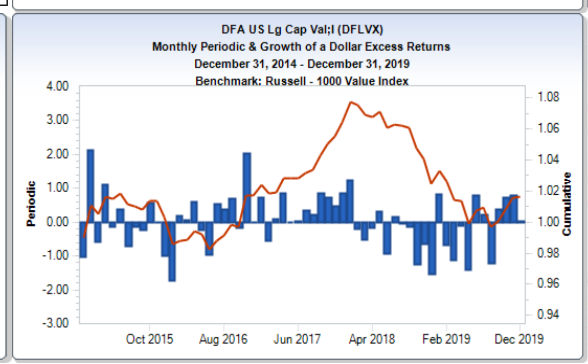
Historical Returns	Annualized Ended 12/31/2019				Annual Returns									
	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
DFA US Lg Cap Val;I (DFLVX)	25.47	9.66	8.64	12.75	25.47	-11.65	18.95	18.91	-3.49	10.08	40.31	22.04	-3.13	20.18
RUSSELL 1000 VAL	26.54	9.68	8.29	11.80	26.54	-8.27	13.66	17.34	-3.83	13.45	32.54	17.50	0.39	15.51
Risk - Standard Deviation														
DFA US Lg Cap Val;I (DFLVX)	15.86	13.73	13.85	15.04	15.86	15.95	5.51	13.40	15.12	7.82	10.17	12.70	21.85	23.16
RUSSELL 1000 VAL	13.51	12.02	11.98	12.71	13.51	14.10	5.43	11.12	12.93	8.29	9.52	10.23	17.28	19.27
Risk - Semi-Variance														
DFA US Lg Cap Val;I (DFLVX)	12.35	10.91	10.38	11.17	12.35	12.75	4.00	9.67	9.32	6.29	7.92	10.33	14.62	17.40
RUSSELL 1000 VAL	10.48	9.45	8.95	9.48	10.48	11.41	3.73	7.87	8.21	6.55	7.46	8.37	11.39	14.51
Excess Returns														
Arithmetic Excess	-1.07	-0.02	0.35	0.95	-1.07	-3.38	5.29	1.57	0.34	-3.37	7.77	4.54	-3.52	4.67
Geometric Excess	-0.85	-0.02	0.32	0.85	-0.85	-3.68	4.65	1.34	0.35	-2.97	5.86	3.86	-3.51	4.04

Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	2.90	2.55	2.76	3.28
Information Ratio	-0.29	-0.01	0.12	0.26
Downside Deviation	2.24	1.95	1.97	2.41
Skewness	-0.52	-0.52	0.04	-0.30
Kurtosis	-1.34	-0.60	0.30	0.24
Alpha	-3.90	-0.98	-0.62	-0.81
Beta	1.17	1.13	1.14	1.17
Residual Risk	1.85	1.96	2.17	2.51
R Squared	0.99	0.98	0.98	0.97







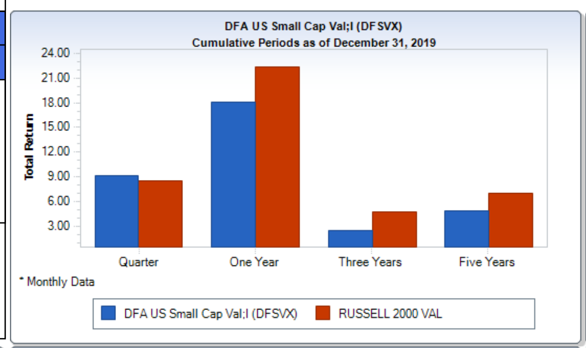


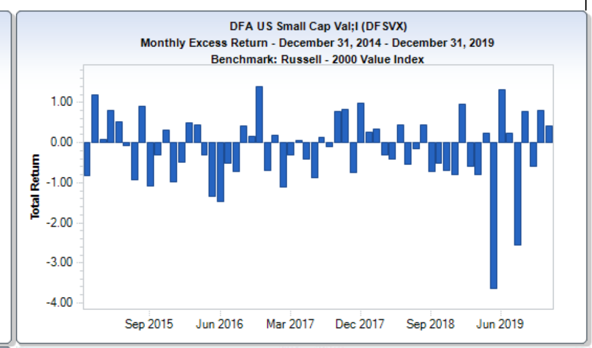
Performance Fact Sheet: DFA US Small Cap Val;I (DFSVX)

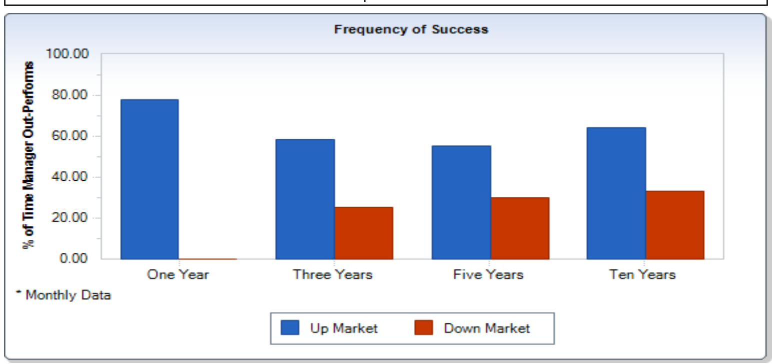
Fund Family:	DIMENSIONAL FUND ADVISORS LP	Net Assets ($MM):	$14,554.10
Asset Class:	U.S. Equity	Expense Ratio:	0.52
Style Category:	Small-Cap Value Funds	Front Load:	
Objective Category:	SMALL-CAP	12B-1 Fee:	
Ticker:	DFSVX	Turnover:	27.00
Share Class:	I	Mgr Tenure:	8

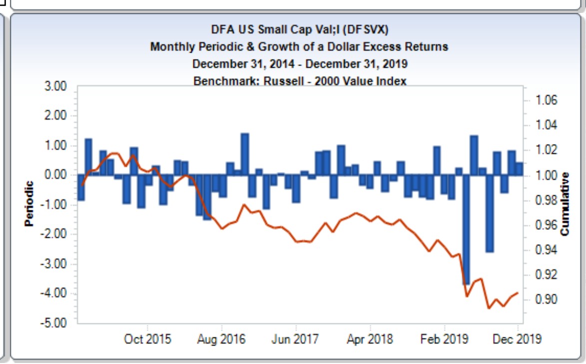
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
DFA US Small Cap Val;I (DFSVX)	18.11	2.43	4.91	10.68	18.11	-15.14	7.22	28.27	-7.82	3.48	42.38	21.72	-7.55	30.90
RUSSELL 2000 VAL	22.39	4.77	6.99	10.56	22.39	-12.86	7.84	31.74	-7.47	4.22	34.50	18.05	-5.50	24.51
Risk - Standard Deviation														
DFA US Small Cap Val;I (DFSVX)	22.77	17.94	17.60	18.78	22.77	18.75	9.99	19.41	14.33	15.58	12.09	12.98	25.30	28.56
RUSSELL 2000 VAL	18.26	15.90	15.88	16.78	18.26	17.99	9.68	17.81	12.96	15.47	10.90	12.19	22.33	24.66
Risk - Semi-Variance														
DFA US Small Cap Val;I (DFSVX)	17.89	13.82	12.77	13.80	17.89	15.38	5.91	12.12	9.77	11.82	9.63	10.41	17.07	22.67
RUSSELL 2000 VAL	14.00	12.24	11.55	12.32	14.00	14.91	5.84	11.80	8.68	11.54	8.53	9.36	14.86	19.39
Excess Returns														
Arithmetic Excess	-4.28	-2.34	-2.08	0.12	-4.28	-2.28	-0.62	-3.47	-0.35	-0.74	7.88	3.67	-2.05	6.39
Geometric Excess	-3.50	-2.23	-1.94	0.11	-3.50	-2.62	-0.57	-2.63	-0.38	-0.71	5.86	3.11	-2.17	5.13

Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	5.16	3.33	3.10	3.38
Information Ratio	-0.68	-0.67	-0.63	0.03
Downside Deviation	4.30	2.70	2.41	2.52
Skewness	-1.35	-1.56	-1.09	-0.52
Kurtosis	1.30	4.27	3.09	1.05
Alpha	-7.16	-2.57	-2.47	-0.85
Beta	1.24	1.12	1.10	1.11
Residual Risk	2.30	2.66	2.65	2.87
R Squared	0.99	0.98	0.98	0.98







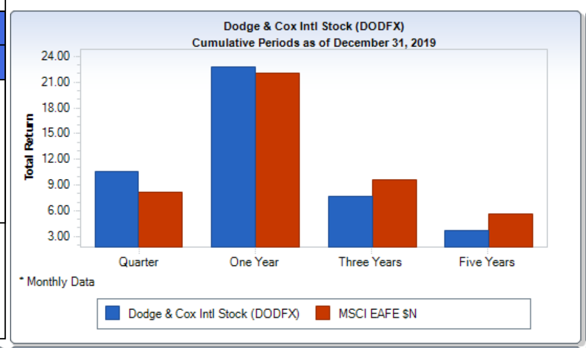


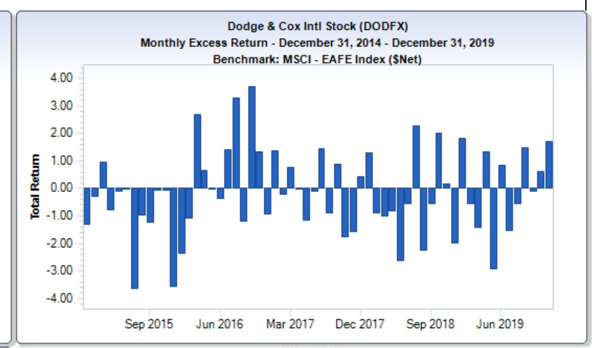
Performance Fact Sheet: Dodge & Cox Intl Stock (DODFX)

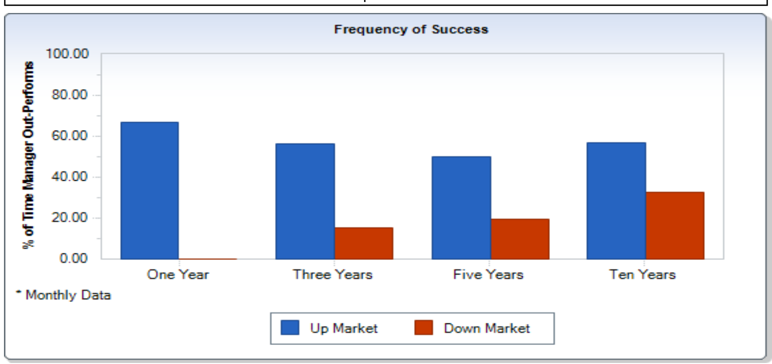
Fund Family:	DODGE & COX		Net Assets ($MM):	
Asset Class:	Non U.S. Equity		Expense Ratio:	0.63
Style Category:	International Large-Cap Core		Front Load:	
Objective Category:	INTERNATIONAL		12B-1 Fee:	
Ticker:	DODFX		Turnover:	17.00
Share Class:	Standard		Mgr Tenure:	

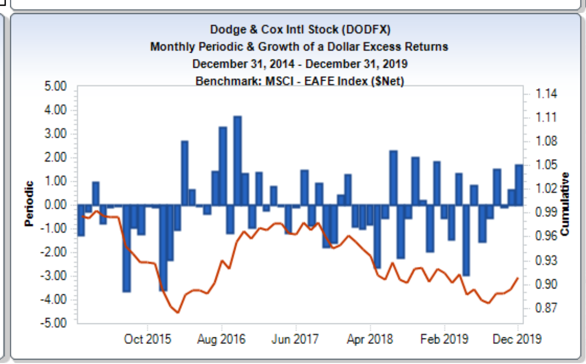
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Dodge & Cox Intl Stock (DODFX)	22.79	7.67	3.67	5.76	22.79	-18.00	23.95	8.27	-11.37	0.07	26.30	21.02	-15.96	13.68
MSCI EAFE $N	22.01	9.56	5.67	5.50	22.01	-13.79	25.03	1.00	-0.81	-4.90	22.78	17.31	-12.14	7.75
Risk - Standard Deviation														
Dodge & Cox Intl Stock (DODFX)	16.05	13.96	14.96	16.42	16.05	14.75	6.72	17.09	16.14	11.26	12.42	17.50	20.47	24.67
MSCI EAFE $N	11.53	10.96	12.23	14.59	11.53	12.43	4.16	13.42	15.23	9.69	12.15	16.68	19.52	22.99
Risk - Semi-Variance														
Dodge & Cox Intl Stock (DODFX)	12.42	10.38	10.81	11.88	12.42	9.38	4.93	12.47	10.61	8.20	8.76	14.81	13.79	17.09
MSCI EAFE $N	8.84	8.59	9.07	10.67	8.84	8.92	3.15	9.42	10.21	6.48	8.43	14.13	13.27	16.16
Excess Returns														
Arithmetic Excess	0.78	-1.89	-2.00	0.26	0.78	-4.21	-1.08	7.27	-10.56	4.97	3.52	3.71	-3.82	5.93
Geometric Excess	0.64	-1.73	-1.89	0.25	0.64	-4.88	-0.86	7.20	-10.65	5.23	2.87	3.16	-4.35	5.50

Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	5.20	4.81	5.40	4.65
Information Ratio	0.12	-0.36	-0.35	0.05
Downside Deviation	3.98	3.43	3.74	3.25
Skewness	-0.63	-0.10	0.11	0.05
Kurtosis	-0.43	-0.86	0.08	0.54
Alpha	-5.00	-3.22	-2.52	-0.14
Beta	1.37	1.21	1.15	1.08
Residual Risk	3.03	4.18	5.08	4.49
R Squared	0.96	0.91	0.88	0.93







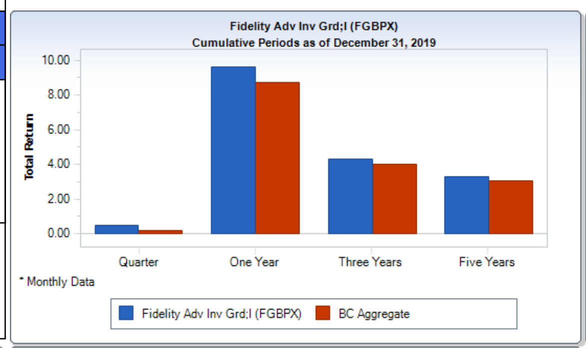


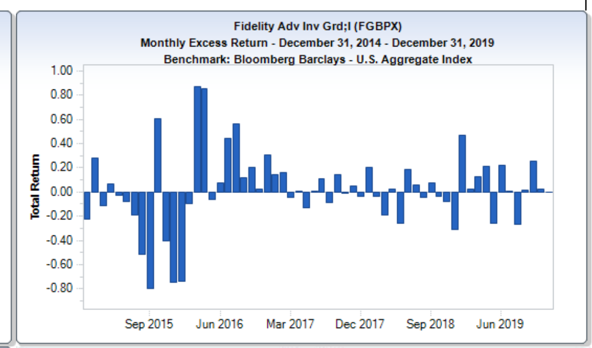
Performance Fact Sheet: Fidelity Adv Inv Grd;I (FGBPX)

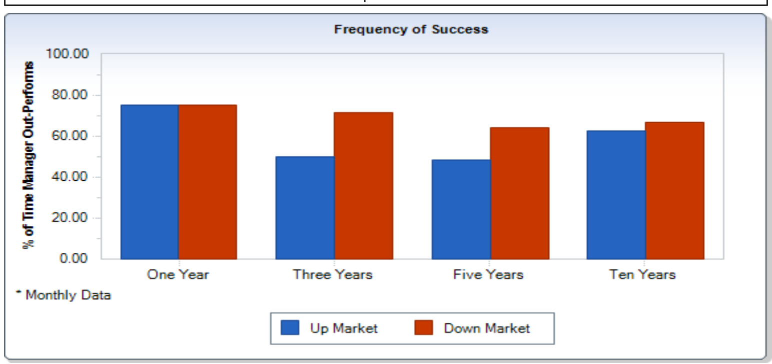
Fund Family:	FIDELITY MANAGEMENT & RESEARCH	Net Assets ($MM):	$567.30
Asset Class:	Taxable Fixed Income	Expense Ratio:	0.50
Style Category:	Core Bond Funds	Front Load:	
Objective Category:	CORE BOND	12B-1 Fee:	
Ticker:	FGBPX	Turnover:	59.00
Share Class:	I	Mgr Tenure:	16

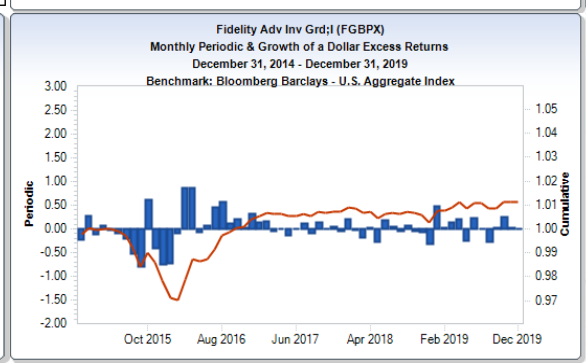
Historical Returns	Annualized Ended 12/31/2019				Annual Returns									
	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Fidelity Adv Inv Grd;I (FGBPX)	9.63	4.28	3.28	4.26	9.63	-0.40	3.87	5.30	-1.61	5.76	-1.79	6.18	8.01	8.38
BC Aggregate	8.72	4.03	3.05	3.75	8.72	0.01	3.54	2.65	0.55	5.97	-2.02	4.22	7.84	6.54
Risk - Standard Deviation														
Fidelity Adv Inv Grd;I (FGBPX)	3.29	2.78	3.10	2.97	3.29	2.71	1.43	3.92	2.96	2.58	3.63	2.25	2.12	2.77
BC Aggregate	3.43	2.91	3.06	2.87	3.43	3.12	1.52	3.71	2.95	2.31	3.19	2.01	2.35	2.91
Risk - Semi-Variance														
Fidelity Adv Inv Grd;I (FGBPX)	2.17	1.80	2.15	2.16	2.17	1.85	1.04	3.15	1.76	1.97	2.76	1.41	1.50	2.04
BC Aggregate	2.12	1.87	2.08	2.03	2.12	2.06	1.10	2.94	1.75	1.71	2.37	1.26	1.62	2.21
Excess Returns														
Arithmetic Excess	0.91	0.25	0.23	0.51	0.91	-0.41	0.33	2.65	-2.16	-0.21	0.23	1.96	0.17	1.84
Geometric Excess	0.84	0.24	0.22	0.49	0.84	-0.41	0.32	2.58	-2.15	-0.20	0.23	1.88	0.16	1.73

Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	0.73	0.56	1.09	0.93
Information Ratio	1.16	0.44	0.21	0.53
Downside Deviation	0.51	0.40	0.77	0.68
Skewness	0.05	0.14	0.01	-0.28
Kurtosis	0.33	0.80	1.83	2.16
Alpha	1.22	0.40	0.33	0.55
Beta	0.94	0.93	0.94	0.98
Residual Risk	0.70	0.54	1.08	0.93
R Squared	0.95	0.96	0.87	0.90









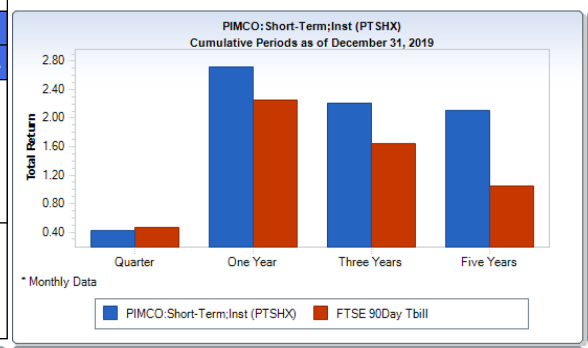
	Quarter	One Year	Three Years	Five Years
Fidelity Adv Inv Grd;I (FGBPX)	0.46 (20%)	9.63 (24%)	4.28 (25%)	3.28 (25%)
BC Aggregate	0.18 (46%)	8.72 (55%)	4.03 (40%)	3.05 (36%)
# of Products	589	589	516	447

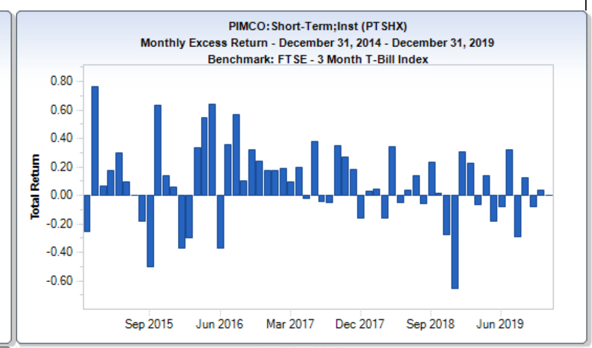
Performance Fact Sheet: PIMCO:Short-Term;Inst (PTSHX)

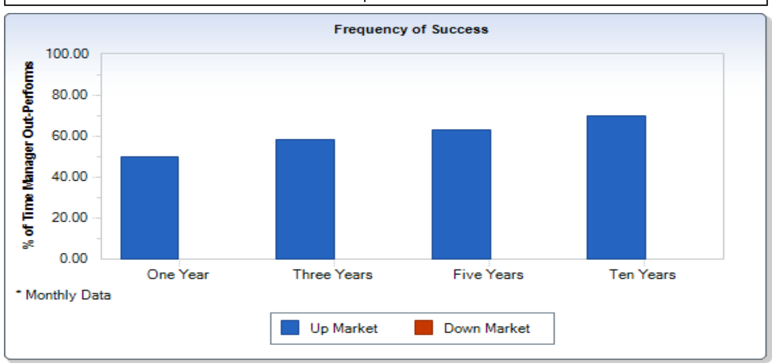
Fund Family:	PIMCO	Net Assets ($MM):	
Asset Class:	Taxable Fixed Income	Expense Ratio:	0.50
Style Category:	Ultra Sht Obligation Fds	Front Load:	
Objective Category:	ULTRA-SHORT OBLIG	12B-1 Fee:	
Ticker:	PTSHX	Turnover:	104.00
Share Class:	I	Mgr Tenure:	9

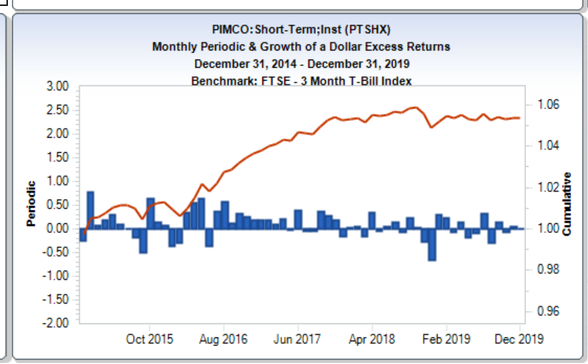
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
PIMCO:Short-Term;Inst (PTSHX)	2.72	2.22	2.11	1.80	2.72	1.50	2.44	2.55	1.34	0.96	0.82	3.42	0.36	1.95
FTSE 90Day Tbill	2.25	1.65	1.05	0.56	2.25	1.86	0.84	0.27	0.03	0.03	0.05	0.07	0.08	0.13
Risk - Standard Deviation														
PIMCO:Short-Term;Inst (PTSHX)	0.67	0.70	0.93	0.90	0.67	0.85	0.57	1.25	1.22	0.55	0.96	0.75	1.02	0.78
FTSE 90Day Tbill	0.08	0.19	0.26	0.23	0.08	0.10	0.08	0.02	0.01	0.00	0.01	0.01	0.01	0.01
Risk - Semi-Variance														
PIMCO:Short-Term;Inst (PTSHX)	0.45	0.52	0.69	0.67	0.45	0.67	0.40	0.98	0.81	0.46	0.78	0.43	0.81	0.61
FTSE 90Day Tbill	0.06	0.14	0.17	0.11	0.06	0.07	0.06	0.01	0.00	0.00	0.00	0.01	0.01	0.01
Excess Returns														
Arithmetic Excess	0.47	0.57	1.06	1.24	0.47	-0.36	1.60	2.28	1.31	0.93	0.77	3.35	0.28	1.82
Geometric Excess	0.46	0.56	1.05	1.23	0.46	-0.35	1.59	2.27	1.31	0.93	0.77	3.35	0.28	1.82

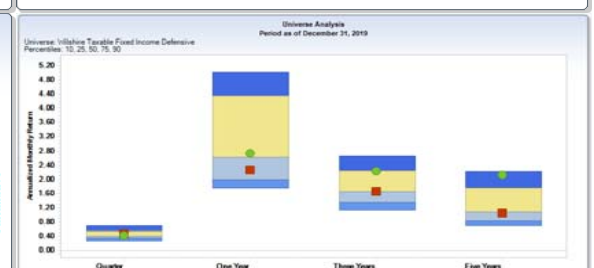
Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	0.66	0.74	0.96	0.91
Information Ratio	0.69	0.75	1.09	1.36
Downside Deviation	0.46	0.57	0.69	0.67
Skewness	-0.01	-0.91	-0.07	-0.32
Kurtosis	-0.79	1.99	0.45	0.94
Alpha	0.70	0.63	1.18	1.35
Beta	9.68	4.97	5.96	6.29
Residual Risk	0.45	0.72	0.94	0.89
R Squared	0.74	0.13	0.07	0.05











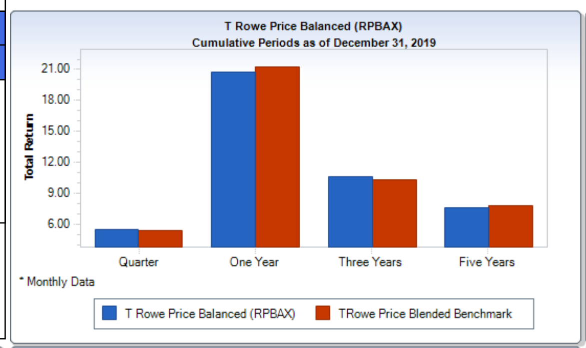
	Quarter	One Year	Three Years	Five Years
PIMCO:Short-Term;Inst (PTSHX)	0.42 (47%)	2.72 (50%)	2.22 (26%)	2.11 (13%)
FTSE 90Day Tbill	0.46 (34%)	2.25 (57%)	1.65 (50%)	1.05 (52%)
# of Products	706	706	634	558

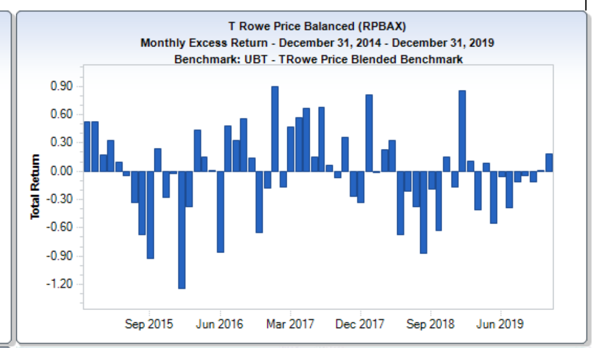
Performance Fact Sheet: T Rowe Price Balanced (RPBAX)

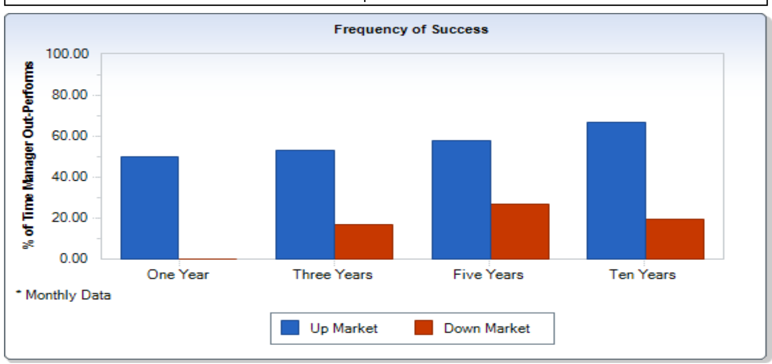
Fund Family:	T. Rowe Price Associates Inc	Net Assets ($MM):	$3,910.40
Asset Class:	Balanced	Expense Ratio:	0.58
Style Category:	Mixed-Asset Target Allocation Growth	Front Load:	
Objective Category:	BALANCED	12B-1 Fee:	
Ticker:	RPBAX	Turnover:	68.00
Share Class:	Standard	Mgr Tenure:	9

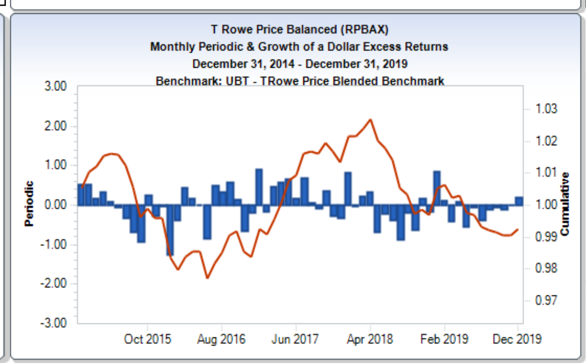
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
T Rowe Price Balanced (RPBAX)	20.71	10.64	7.62	8.96	20.71	-4.92	18.00	5.91	0.65	5.97	19.24	13.94	0.88	12.49
TRowe Price Blended Benchmark	21.27	10.31	7.78	8.99	21.27	-3.35	14.52	7.23	1.08	8.68	16.70	11.50	3.18	11.45
Risk - Standard Deviation														
T Rowe Price Balanced (RPBAX)	8.09	7.56	7.77	8.73	8.09	8.89	2.44	7.42	8.98	6.03	6.53	8.46	12.26	13.54
TRowe Price Blended Benchmark	7.12	6.90	6.96	7.37	7.12	8.45	2.08	6.16	8.04	5.25	5.80	6.51	9.55	11.15
Risk - Semi-Variance														
T Rowe Price Balanced (RPBAX)	5.82	5.94	5.79	6.41	5.82	6.96	1.76	5.11	5.92	4.24	5.02	7.06	8.00	9.94
TRowe Price Blended Benchmark	5.23	5.52	5.20	5.44	5.23	6.69	1.45	4.12	5.10	3.86	4.64	5.35	6.19	8.15
Excess Returns														
Arithmetic Excess	-0.56	0.33	-0.16	-0.03	-0.56	-1.57	3.48	-1.32	-0.43	-2.71	2.54	2.44	-2.30	1.04
Geometric Excess	-0.46	0.30	-0.15	-0.03	-0.46	-1.62	3.04	-1.23	-0.43	-2.49	2.18	2.19	-2.23	0.93

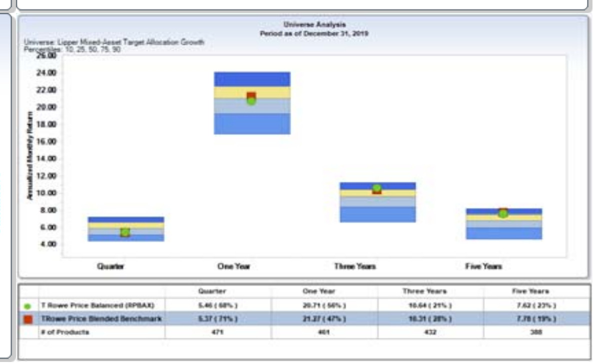
Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	1.24	1.52	1.61	1.90
Information Ratio	-0.37	0.20	-0.09	-0.02
Downside Deviation	0.76	1.02	1.18	1.41
Skewness	1.16	0.25	-0.29	-0.36
Kurtosis	2.98	-0.31	-0.06	0.77
Alpha	-2.43	-0.30	-0.76	-1.32
Beta	1.13	1.08	1.10	1.17
Residual Risk	0.87	1.44	1.47	1.44
R Squared	0.99	0.96	0.96	0.97









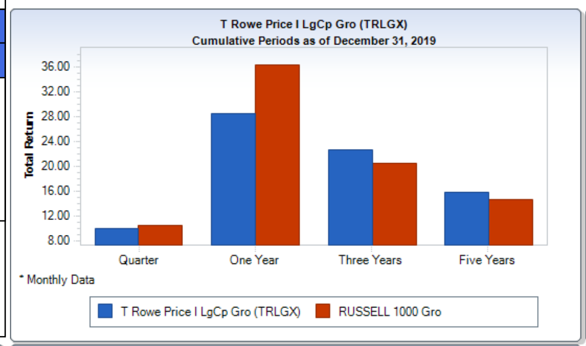


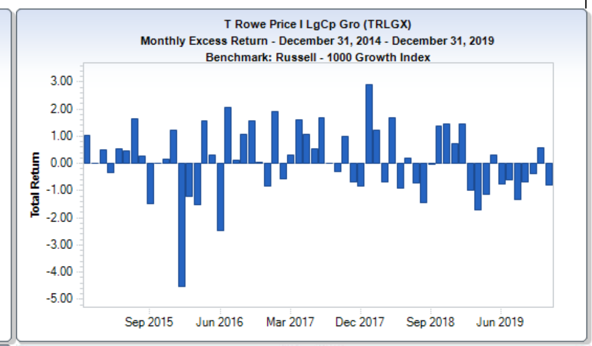
Performance Fact Sheet: T Rowe Price I LgCp Gro (TRLGX)

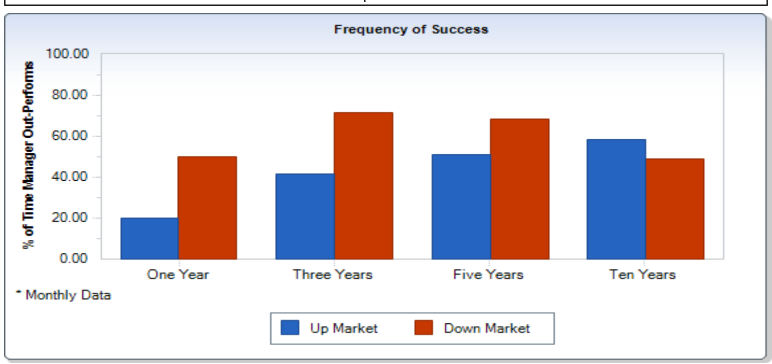
Fund Family:	T. Rowe Price Associates Inc	Net Assets ($MM):	$16,601.60
Asset Class:	U.S. Equity	Expense Ratio:	0.56
Style Category:	Large-Cap Growth Funds	Front Load:	
Objective Category:	GROWTH	12B-1 Fee:	
Ticker:	TRLGX	Turnover:	33.00
Share Class:	Standard	Mgr Tenure:	3

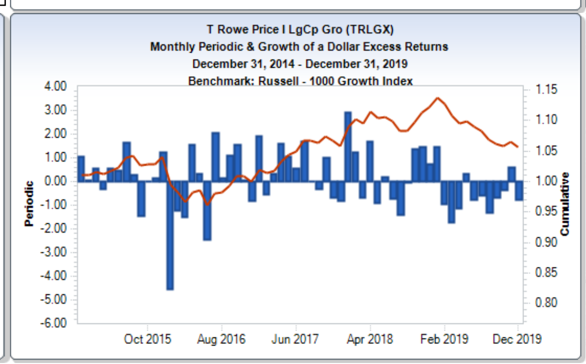
Historical Returns	Annualized Ended 12/31/2019				Annual Returns									
	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
T Rowe Price I LgCp Gro (TRLGX)	28.49	22.69	15.89	16.03	28.49	4.30	37.82	2.85	10.04	8.70	44.44	17.54	-1.40	16.29
RUSSELL 1000 Gro	36.39	20.49	14.63	15.22	36.39	-1.51	30.21	7.08	5.67	13.05	33.49	15.26	2.63	16.72
Risk - Standard Deviation														
T Rowe Price I LgCp Gro (TRLGX)	14.43	13.64	13.90	14.99	14.43	17.54	6.32	14.51	14.45	11.35	9.73	15.51	18.68	22.58
RUSSELL 1000 Gro	13.41	13.26	12.92	13.15	13.41	17.44	4.57	11.02	14.05	9.30	8.05	11.61	15.98	20.08
Risk - Semi-Variance														
T Rowe Price I LgCp Gro (TRLGX)	10.20	10.36	10.32	10.95	10.20	13.04	4.57	11.35	9.26	8.01	7.07	12.42	11.42	16.49
RUSSELL 1000 Gro	10.46	10.70	9.71	9.77	10.46	13.53	3.39	7.56	8.68	6.45	6.46	9.31	10.32	14.86
Excess Returns														
Arithmetic Excess	-7.90	2.20	1.26	0.81	-7.90	5.81	7.61	-4.23	4.37	-4.35	10.95	2.28	-4.03	-0.43
Geometric Excess	-5.79	1.83	1.10	0.70	-5.79	5.90	5.84	-3.95	4.14	-3.85	8.20	1.98	-3.93	-0.37

Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	3.08	3.93	4.40	4.46
Information Ratio	-1.88	0.47	0.25	0.16
Downside Deviation	1.80	2.57	3.29	3.34
Skewness	1.03	0.44	-0.66	-0.54
Kurtosis	0.91	-0.67	1.79	0.80
Alpha	-6.95	2.08	0.86	-0.44
Beta	1.05	0.98	1.02	1.09
Residual Risk	3.15	4.04	4.42	4.34
R Squared	0.95	0.91	0.90	0.92







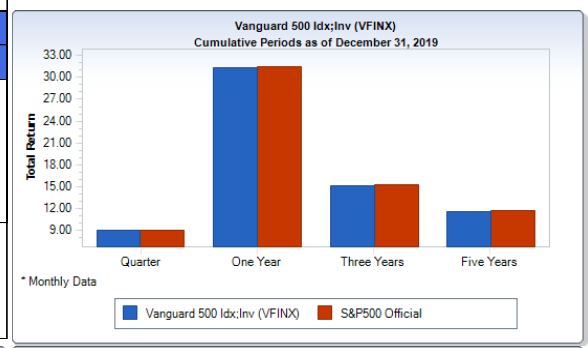


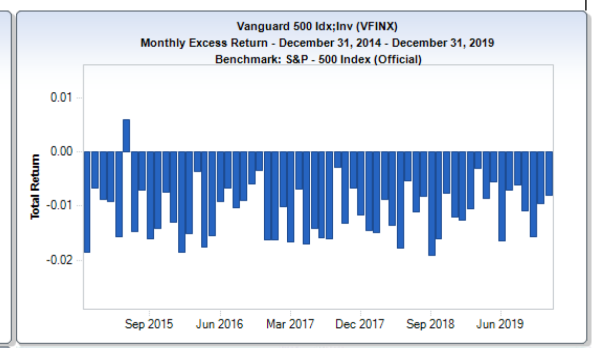
Performance Fact Sheet: Vanguard 500 Idx;Inv (VFINX)

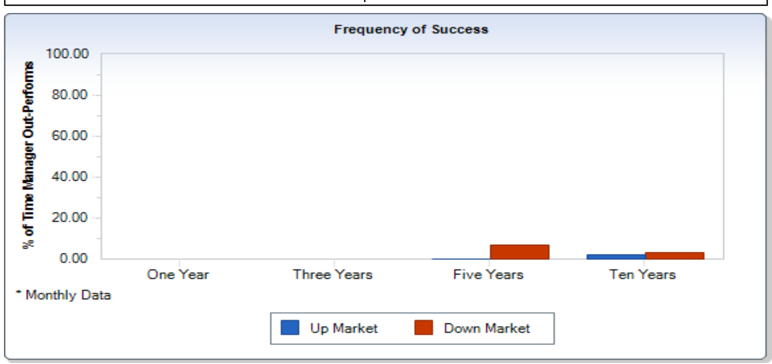
Fund Family:	VANGUARD GROUP INC	Net Assets ($MM):	$4,723.40
Asset Class:	U.S. Equity	Expense Ratio:	0.14
Style Category:	S&P 500 Index Funds	Front Load:	
Objective Category:	S&P 500 INDEX FUNDS	12B-1 Fee:	0.02
Ticker:	VFINX	Turnover:	4.00
Share Class:	Investor	Mgr Tenure:	4

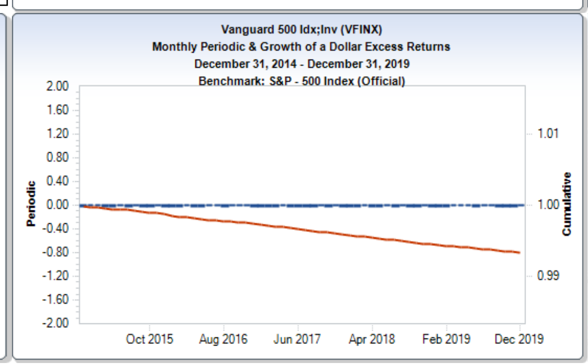
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Vanguard 500 Idx;Inv (VFINX)	31.34	15.11	11.55	13.40	31.34	-4.53	21.65	11.81	1.26	13.49	32.19	15.82	1.98	14.91
S&P500 Official	31.49	15.27	11.70	13.56	31.49	-4.38	21.83	11.96	1.38	13.69	32.39	16.00	2.11	15.06
Risk - Standard Deviation														
Vanguard 500 Idx;Inv (VFINX)	12.88	12.10	11.98	12.46	12.88	15.33	3.94	10.30	13.66	8.26	8.49	10.52	15.94	19.26
S&P500 Official	12.89	12.10	11.98	12.46	12.89	15.33	3.94	10.29	13.66	8.26	8.48	10.52	15.94	19.26
Risk - Semi-Variance														
Vanguard 500 Idx;Inv (VFINX)	10.07	9.80	9.07	9.33	10.07	12.19	2.59	7.17	8.52	6.20	6.87	8.57	10.30	14.38
S&P500 Official	10.08	9.80	9.07	9.33	10.08	12.19	2.58	7.17	8.52	6.20	6.87	8.57	10.29	14.37
Excess Returns														
Arithmetic Excess	-0.15	-0.16	-0.15	-0.16	-0.15	-0.15	-0.18	-0.15	-0.12	-0.20	-0.20	-0.18	-0.13	-0.15
Geometric Excess	-0.11	-0.14	-0.13	-0.14	-0.11	-0.16	-0.15	-0.13	-0.12	-0.18	-0.15	-0.16	-0.13	-0.13

Excess Statistics	Annualized Ended 12/31/2019			
Manager vs. Benchmark	1 Year	3 Years	5 Years	10 Years
Tracking Error	0.01	0.02	0.02	0.02
Information Ratio	-8.22	-8.90	-7.63	-7.32
Downside Deviation	0.01	0.01	0.01	0.01
Skewness	-0.39	0.16	0.62	0.22
Kurtosis	-0.34	-1.04	0.58	0.12
Alpha	-0.10	-0.14	-0.13	-0.14
Beta	1.00	1.00	1.00	1.00
Residual Risk	0.01	0.02	0.02	0.02
R Squared	1.00	1.00	1.00	1.00







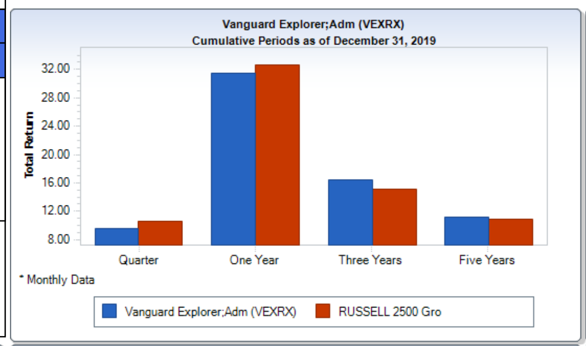


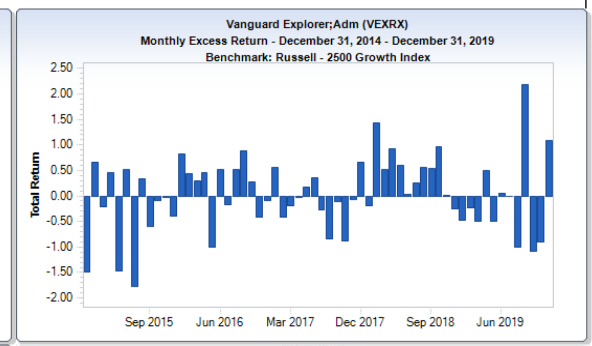
Performance Fact Sheet: Vanguard Explorer;Adm (VEXRX)

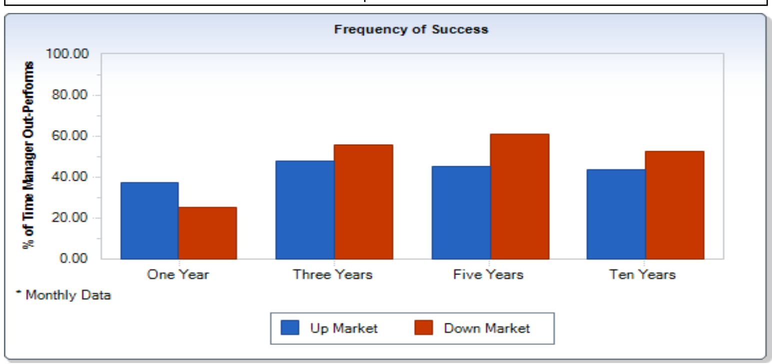
Fund Family:	VANGUARD GROUP INC	Net Assets ($MM):	$13,458.50
Asset Class:	U.S. Equity	Expense Ratio:	0.34
Style Category:	Small-Cap Growth Funds	Front Load:	
Objective Category:	SMALL-CAP	12B-1 Fee:	0.01
Ticker:	VEXRX	Turnover:	50.00
Share Class:	Standard	Mgr Tenure:	

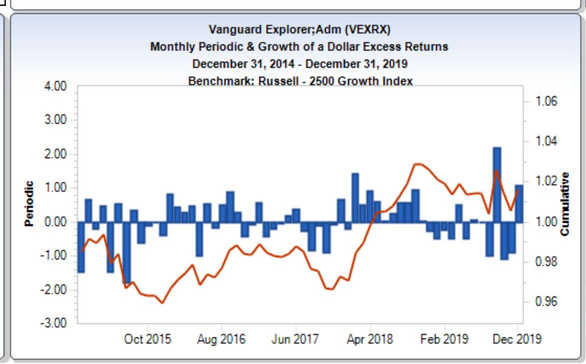
Historical Returns	Annualized Ended 12/31/2019				Annual Returns									
	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Vanguard Explorer;Adm (VEXRX)	31.40	16.44	11.21	13.97	31.40	-2.39	23.10	12.48	-4.23	4.09	44.60	15.08	-1.71	27.64
RUSSELL 2500 Gro	32.65	15.17	10.84	14.01	32.65	-7.47	24.46	9.73	-0.19	7.05	40.66	16.14	-1.59	28.87
Risk - Standard Deviation														
Vanguard Explorer;Adm (VEXRX)	17.63	15.71	15.62	16.40	17.63	20.22	4.82	16.40	15.09	13.17	10.14	13.24	23.10	22.82
RUSSELL 2500 Gro	17.94	16.08	15.87	16.61	17.94	20.36	4.68	17.24	14.71	13.65	10.73	13.30	23.30	23.07
Risk - Semi-Variance														
Vanguard Explorer;Adm (VEXRX)	12.62	12.30	11.93	12.09	12.62	16.51	3.43	12.51	10.29	9.44	7.41	10.55	14.66	17.20
RUSSELL 2500 Gro	12.46	12.47	12.11	12.26	12.46	16.49	3.30	13.09	10.49	9.84	7.69	10.38	15.17	17.41
Excess Returns														
Arithmetic Excess	-1.25	1.27	0.37	-0.04	-1.25	5.08	-1.36	2.75	-4.04	-2.96	3.94	-1.06	-0.12	-1.23
Geometric Excess	-0.94	1.10	0.33	-0.04	-0.94	5.49	-1.09	2.51	-4.05	-2.77	2.80	-0.91	-0.12	-0.95

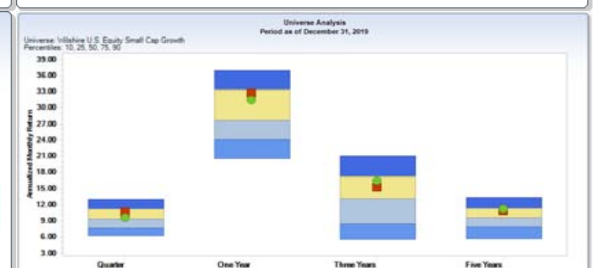
Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	3.29	2.46	2.50	2.12
Information Ratio	-0.29	0.45	0.13	-0.02
Downside Deviation	1.85	1.59	1.81	1.48
Skewness	1.36	0.67	-0.05	0.12
Kurtosis	1.88	0.94	0.82	1.11
Alpha	-0.19	1.51	0.58	0.21
Beta	0.97	0.97	0.97	0.98
Residual Risk	3.24	2.39	2.46	2.09
R Squared	0.97	0.98	0.98	0.98











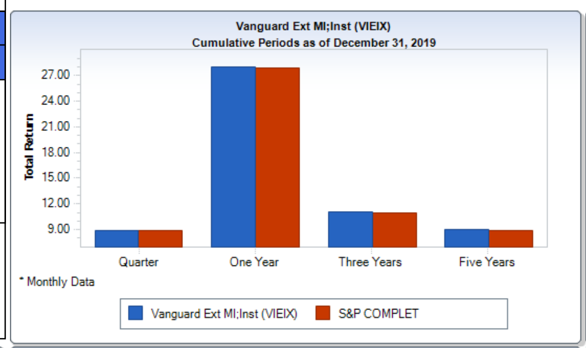
	Quarter	One Year	Three Years	Five Years
Vanguard Explorer;Adm (VEXRX)	9.54 (47%)	31.40 (32%)	16.44 (32%)	11.21 (27%)
RUSSELL 2500 Gro	10.57 (34%)	32.65 (29%)	15.17 (39%)	10.84 (30%)
# of Products	630	630	628	544

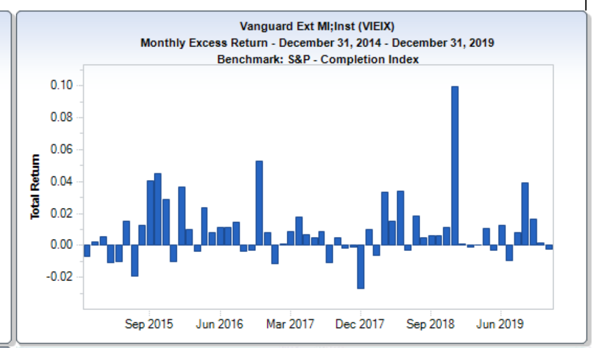
Performance Fact Sheet: Vanguard Ext MI;Inst (VIEIX)

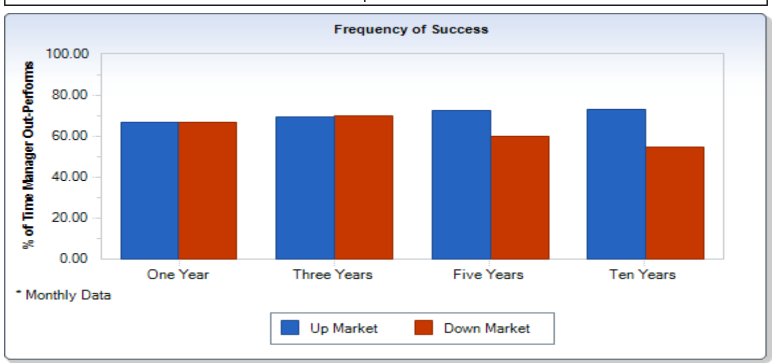
Fund Family:	VANGUARD GROUP INC	Net Assets ($MM):	$14,926.80
Asset Class:	U.S. Equity	Expense Ratio:	0.06
Style Category:	Small-Cap Growth Funds	Front Load:	0.00
Objective Category:	MID-CAP	12B-1 Fee:	0.00
Ticker:	VIEIX	Turnover:	10.00
Share Class:	I	Mgr Tenure:	23

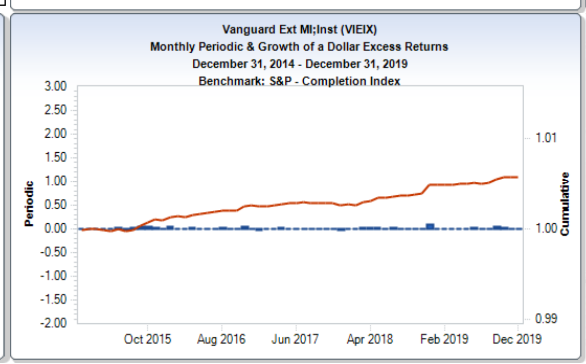
Historical Returns	Annualized Ended 12/31/2019				Annual Returns									
	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Vanguard Ext MI;Inst (VIEIX)	28.04	11.08	9.02	12.83	28.04	-9.36	18.11	16.15	-3.26	7.57	38.43	18.52	-3.57	27.59
S&P COMPLET	27.95	10.97	8.90	12.70	27.95	-9.57	18.11	15.95	-3.35	7.50	38.24	18.36	-3.71	27.46
Risk - Standard Deviation														
Vanguard Ext MI;Inst (VIEIX)	16.89	14.67	14.55	15.60	16.89	17.77	5.10	16.21	12.99	12.60	10.54	12.53	22.12	22.33
S&P COMPLET	16.89	14.69	14.55	15.59	16.89	17.80	5.09	16.20	12.98	12.59	10.47	12.51	22.09	22.30
Risk - Semi-Variance														
Vanguard Ext MI;Inst (VIEIX)	12.17	11.52	11.07	11.61	12.17	14.72	3.50	12.10	8.87	9.20	7.67	9.90	14.84	17.38
S&P COMPLET	12.16	11.55	11.08	11.61	12.16	14.76	3.50	12.11	8.87	9.20	7.62	9.87	14.85	17.37
Excess Returns														
Arithmetic Excess	0.09	0.11	0.12	0.13	0.09	0.21	0.00	0.20	0.09	0.07	0.19	0.16	0.14	0.13
Geometric Excess	0.07	0.10	0.11	0.12	0.07	0.23	0.00	0.17	0.09	0.07	0.14	0.14	0.15	0.10

Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	0.04	0.07	0.07	0.08
Information Ratio	1.70	1.45	1.66	1.43
Downside Deviation	0.02	0.03	0.04	0.05
Skewness	1.66	2.71	1.94	0.27
Kurtosis	3.55	11.47	6.80	2.06
Alpha	0.07	0.11	0.12	0.11
Beta	1.00	1.00	1.00	1.00
Residual Risk	0.04	0.06	0.07	0.08
R Squared	1.00	1.00	1.00	1.00







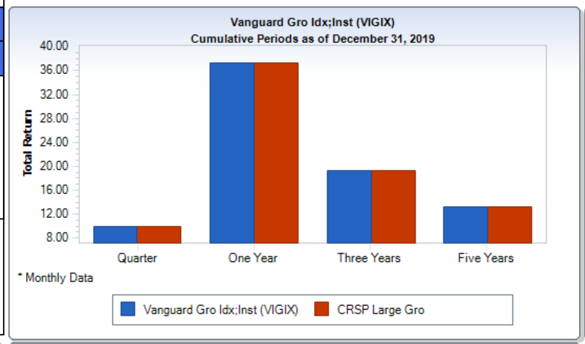


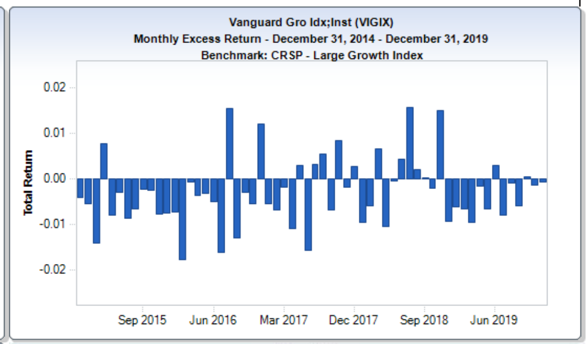
Performance Fact Sheet: Vanguard Gro Idx;Inst (VIGIX)

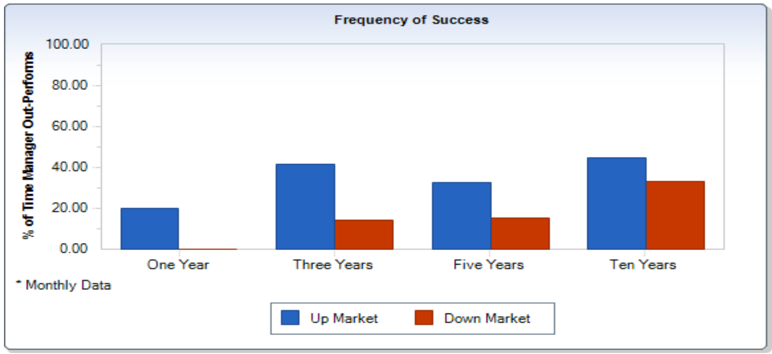
Fund Family:	VANGUARD GROUP INC	Net Assets ($MM):	$16,426.30
Asset Class:	U.S. Equity	Expense Ratio:	0.04
Style Category:	Large-Cap Growth Funds	Front Load:	
Objective Category:	GROWTH	12B-1 Fee:	0.00
Ticker:	VIGIX	Turnover:	11.00
Share Class:	I	Mgr Tenure:	20

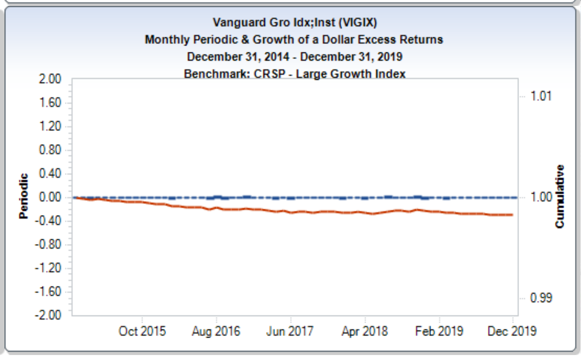
Historical Returns	Annualized Ended 12/31/2019				Annual Returns									
	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Vanguard Gro Idx;Inst (VIGIX)	37.25	19.25	13.21	14.60	37.25	-3.33	27.82	6.11	3.32	13.61	32.40	17.04	1.91	17.16
CRSP Large Gro	37.31	19.28	13.24	14.11	37.31	-3.34	27.86	6.16	3.38	13.69	31.75	15.20	0.58	15.77
Risk - Standard Deviation														
Vanguard Gro Idx;Inst (VIGIX)	13.45	13.21	13.06	13.50	13.45	17.07	4.69	11.56	14.39	10.11	8.32	11.98	16.55	20.87
CRSP Large Gro	13.45	13.21	13.06	13.49	13.45	17.06	4.68	11.56	14.39	10.12	8.22	12.10	17.27	20.15
Risk - Semi-Variance														
Vanguard Gro Idx;Inst (VIGIX)	10.42	10.62	9.76	9.97	10.42	13.33	3.42	7.88	8.82	7.07	6.54	9.58	10.51	15.59
CRSP Large Gro	10.42	10.61	9.76	9.98	10.42	13.33	3.41	7.88	8.81	7.08	6.45	9.77	11.12	15.02
Excess Returns														
Arithmetic Excess	-0.06	-0.03	-0.03	0.49	-0.06	0.01	-0.04	-0.05	-0.06	-0.08	0.65	1.84	1.33	1.39
Geometric Excess	-0.04	-0.03	-0.03	0.43	-0.04	0.01	-0.03	-0.05	-0.06	-0.07	0.49	1.60	1.32	1.20

Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	0.01	0.02	0.03	0.57
Information Ratio	-3.21	-0.87	-1.34	0.76
Downside Deviation	0.01	0.02	0.02	0.30
Skewness	0.13	0.57	0.62	1.67
Kurtosis	-1.26	0.48	0.58	4.95
Alpha	-0.05	-0.02	-0.04	0.43
Beta	1.00	1.00	1.00	1.00
Residual Risk	0.01	0.02	0.03	0.57
R Squared	1.00	1.00	1.00	1.00







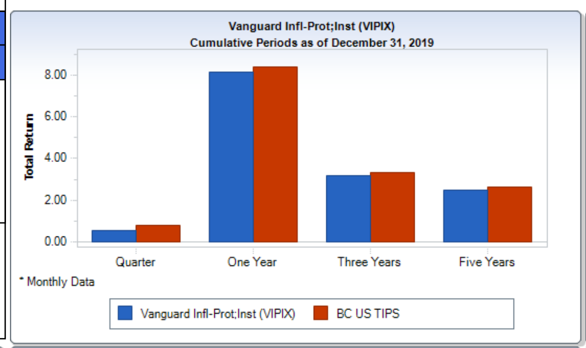


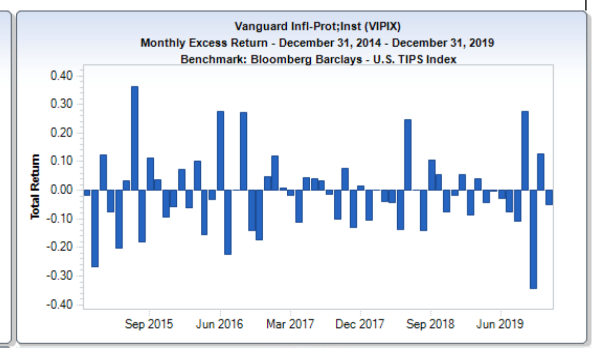
Performance Fact Sheet: Vanguard Infl-Prot;Inst (VIPIX)

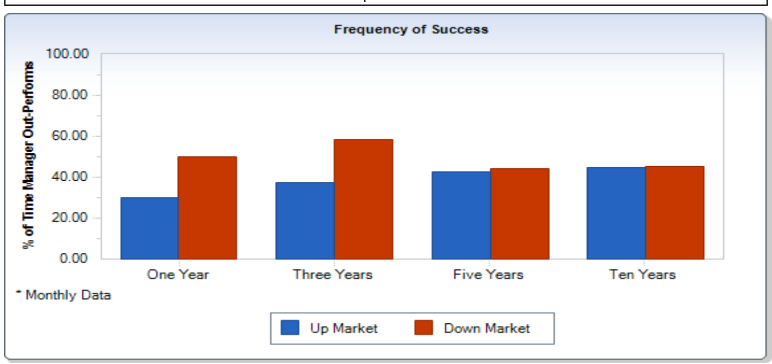
Fund Family:	VANGUARD GROUP INC	Net Assets ($MM):	$10,249.80
Asset Class:	Taxable Fixed Income	Expense Ratio:	0.07
Style Category:	Infl Protected Bd Fds	Front Load:	
Objective Category:	INFLATION PROTECTED	12B-1 Fee:	0.00
Ticker:	VIPIX	Turnover:	27.00
Share Class:	I	Mgr Tenure:	9

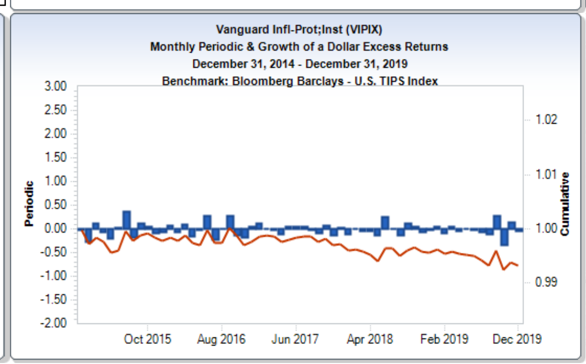
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Vanguard Infl-Prot;Inst (VIPIX)	8.17	3.17	2.48	3.28	8.17	-1.41	2.97	4.66	-1.66	4.04	-8.84	6.87	13.40	6.32
BC US TIPS	8.43	3.32	2.62	3.36	8.43	-1.26	3.01	4.68	-1.44	3.64	-8.61	6.98	13.56	6.31
Risk - Standard Deviation														
Vanguard Infl-Prot;Inst (VIPIX)	3.36	2.95	3.53	4.44	3.36	2.77	2.17	4.36	4.24	4.44	6.52	4.06	4.14	5.19
BC US TIPS	3.48	3.00	3.44	4.35	3.48	2.85	2.11	4.03	4.08	4.45	6.18	4.07	4.07	5.11
Risk - Semi-Variance														
Vanguard Infl-Prot;Inst (VIPIX)	2.28	2.08	2.37	3.23	2.28	2.06	1.66	3.17	2.23	3.32	5.17	2.74	2.14	3.75
BC US TIPS	2.43	2.16	2.32	3.16	2.43	2.13	1.62	2.97	2.00	3.40	4.95	2.77	2.19	3.70
Excess Returns														
Arithmetic Excess	-0.26	-0.15	-0.14	-0.08	-0.26	-0.15	-0.04	-0.02	-0.22	0.40	-0.23	-0.11	-0.16	0.01
Geometric Excess	-0.24	-0.15	-0.14	-0.08	-0.24	-0.15	-0.04	-0.02	-0.22	0.39	-0.25	-0.10	-0.14	0.01

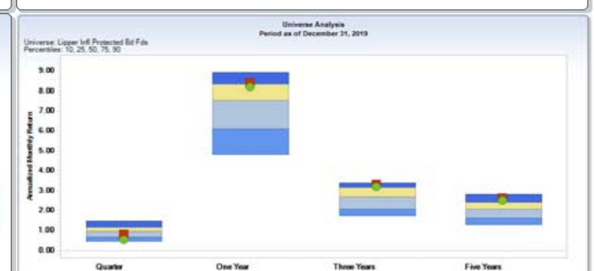
Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	0.51	0.39	0.46	0.47
Information Ratio	-0.47	-0.36	-0.29	-0.16
Downside Deviation	0.37	0.27	0.31	0.32
Skewness	-0.21	0.05	0.42	0.16
Kurtosis	2.34	2.29	0.89	0.65
Alpha	0.00	-0.10	-0.16	-0.12
Beta	0.96	0.97	1.02	1.02
Residual Risk	0.49	0.38	0.46	0.47
R Squared	0.98	0.98	0.98	0.99











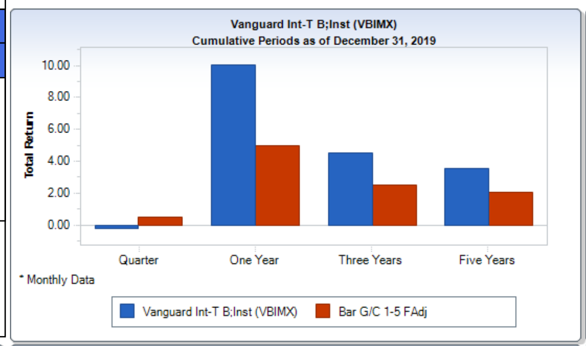
	Quarter	One Year	Three Years	Five Years
Vanguard Infl-Prot;Inst (VIPIX)	0.52 (67%)	8.17 (32%)	3.17 (24%)	2.48 (21%)
BC US TIPS	0.79 (63%)	8.43 (19%)	3.32 (14%)	2.62 (14%)
# of Products	217	216	189	159

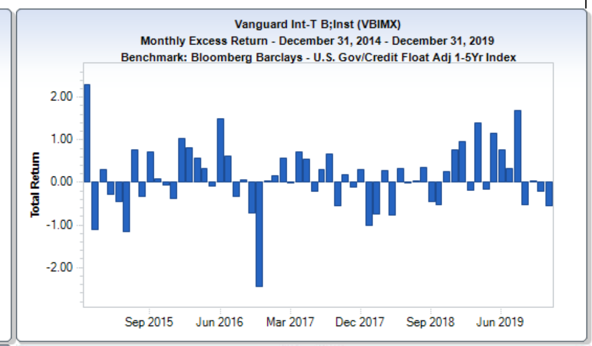
Performance Fact Sheet: Vanguard Int-T B;Inst (VBIMX)

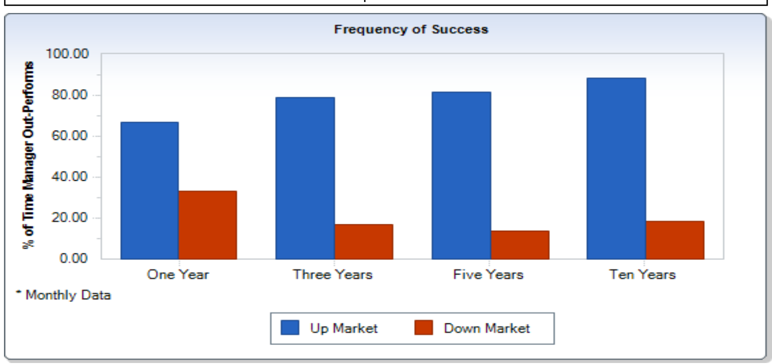
Fund Family:	VANGUARD GROUP INC	Net Assets ($MM):	$3,158.30
Asset Class:	Taxable Fixed Income	Expense Ratio:	0.05
Style Category:	Core Bond Funds	Front Load:	
Objective Category:	CORE BOND	12B-1 Fee:	0.00
Ticker:	VBIMX	Turnover:	53.00
Share Class:	I	Mgr Tenure:	12

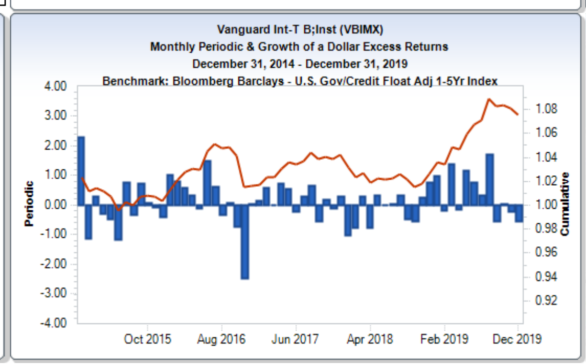
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Vanguard Int-T B;Inst (VBIMX)	10.05	4.50	3.52	4.79	10.05	-0.16	3.87	2.85	1.31	7.00	-3.42	7.07	10.77	9.52
Bar G/C 1-5 FAdj	5.01	2.54	2.03	2.13	5.01	1.38	1.27	1.57	0.97	1.43	0.29	2.24	3.13	4.08
Risk - Standard Deviation														
Vanguard Int-T B;Inst (VBIMX)	4.15	3.42	3.97	4.13	4.15	3.34	2.10	5.17	4.46	3.36	5.09	3.09	3.94	5.08
Bar G/C 1-5 FAdj	1.56	1.38	1.43	1.37	1.56	1.47	0.84	1.75	1.30	1.08	1.29	0.85	1.32	1.77
Risk - Semi-Variance														
Vanguard Int-T B;Inst (VBIMX)	2.67	2.23	2.73	2.96	2.67	2.32	1.59	4.08	2.56	2.39	3.83	2.08	2.63	3.96
Bar G/C 1-5 FAdj	1.03	0.88	0.94	0.94	1.03	0.94	0.64	1.25	0.76	0.81	0.97	0.48	0.92	1.40
Excess Returns														
Arithmetic Excess	5.04	1.96	1.49	2.66	5.04	-1.54	2.60	1.28	0.34	5.57	-3.71	4.83	7.64	5.44
Geometric Excess	4.80	1.91	1.46	2.60	4.80	-1.52	2.57	1.26	0.34	5.49	-3.70	4.72	7.41	5.23

Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019 1 Year	3 Years	5 Years	10 Years
Tracking Error	2.68	2.14	2.64	2.93
Information Ratio	1.79	0.90	0.55	0.89
Downside Deviation	1.77	1.44	1.87	2.13
Skewness	0.38	0.38	-0.13	-0.32
Kurtosis	-1.32	0.05	1.95	0.86
Alpha	0.55	0.67	-0.13	-0.14
Beta	2.63	2.46	2.71	2.81
Residual Risk	1.24	1.00	1.23	1.63
R Squared	0.90	0.91	0.90	0.84







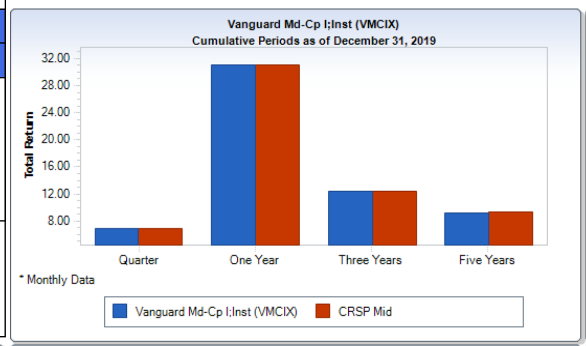


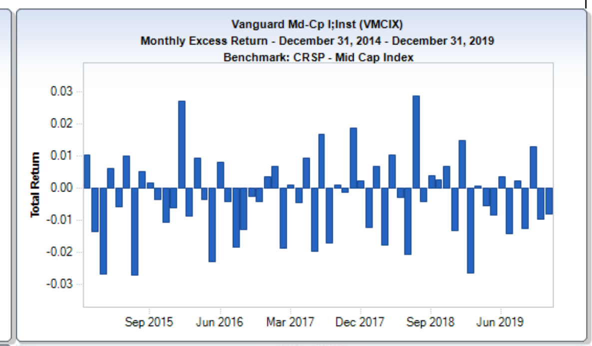
Performance Fact Sheet: Vanguard Md-Cp I;Inst (VMCIX)

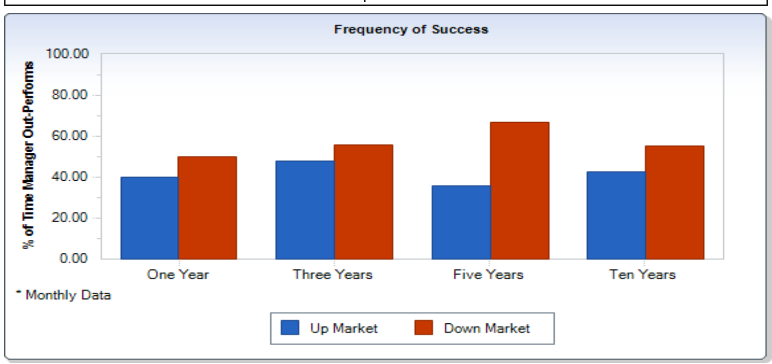
Fund Family:	VANGUARD GROUP INC	Net Assets ($MM):	$20,425.20
Asset Class:	U.S. Equity	Expense Ratio:	0.04
Style Category:	Mid-Cap Core Funds	Front Load:	
Objective Category:	MID-CAP	12B-1 Fee:	0.00
Ticker:	VMCIX	Turnover:	16.00
Share Class:	I	Mgr Tenure:	22

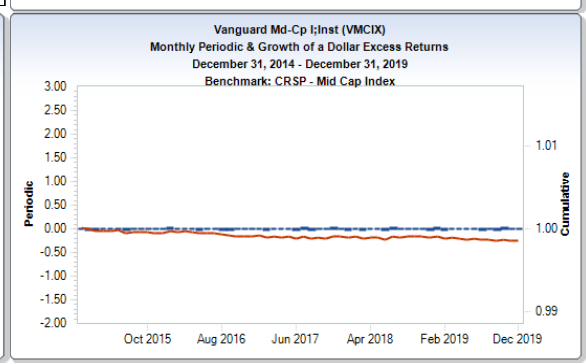
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Vanguard Md-Cp I;Inst (VMCIX)	31.02	12.36	9.25	13.09	31.02	-9.23	19.29	11.21	-1.34	13.77	35.18	16.01	-1.95	25.66
CRSP Mid	31.09	12.39	9.29	13.25	31.09	-9.22	19.30	11.25	-1.28	13.83	35.26	16.69	-1.79	26.16
Risk - Standard Deviation														
Vanguard Md-Cp I;Inst (VMCIX)	14.63	13.00	12.75	13.92	14.63	15.51	4.21	13.49	11.84	10.46	9.16	11.81	20.13	20.59
CRSP Mid	14.62	12.99	12.75	13.76	14.62	15.51	4.19	13.50	11.86	10.47	9.17	11.58	19.11	20.49
Risk - Semi-Variance														
Vanguard Md-Cp I;Inst (VMCIX)	10.45	10.27	9.63	10.31	10.45	12.98	2.93	9.85	7.53	7.39	6.82	9.55	13.40	15.84
CRSP Mid	10.45	10.27	9.63	10.18	10.45	12.98	2.91	9.88	7.55	7.40	6.82	9.36	12.66	15.67
Excess Returns														
Arithmetic Excess	-0.07	-0.03	-0.04	-0.16	-0.07	-0.01	-0.01	-0.04	-0.06	-0.06	-0.08	-0.68	-0.16	-0.50
Geometric Excess	-0.05	-0.03	-0.04	-0.14	-0.05	-0.01	-0.01	-0.04	-0.06	-0.05	-0.06	-0.58	-0.16	-0.40

Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	0.04	0.04	0.04	0.53
Information Ratio	-1.22	-0.48	-0.68	-0.27
Downside Deviation	0.03	0.03	0.03	0.42
Skewness	-0.02	0.17	0.12	-1.55
Kurtosis	0.01	-0.29	-0.15	13.60
Alpha	-0.06	-0.03	-0.03	-0.26
Beta	1.00	1.00	1.00	1.01
Residual Risk	0.04	0.04	0.04	0.51
R Squared	1.00	1.00	1.00	1.00







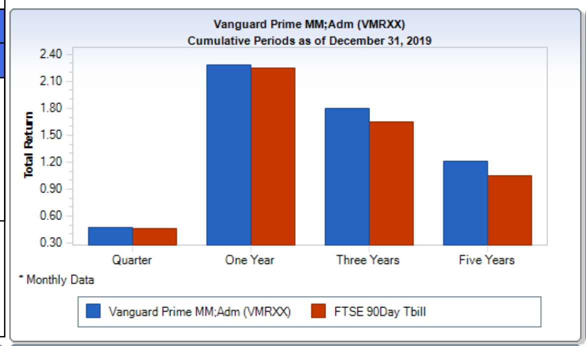


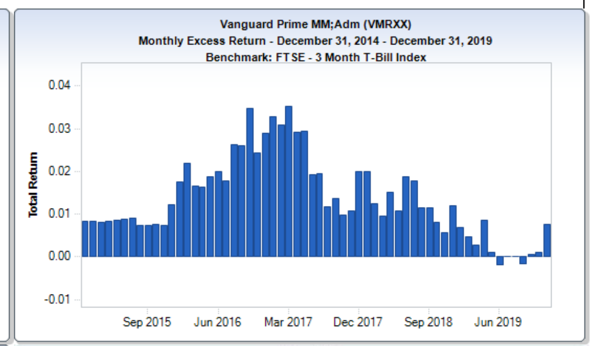
Performance Fact Sheet: Vanguard Prime MM;Adm (VMRXX)

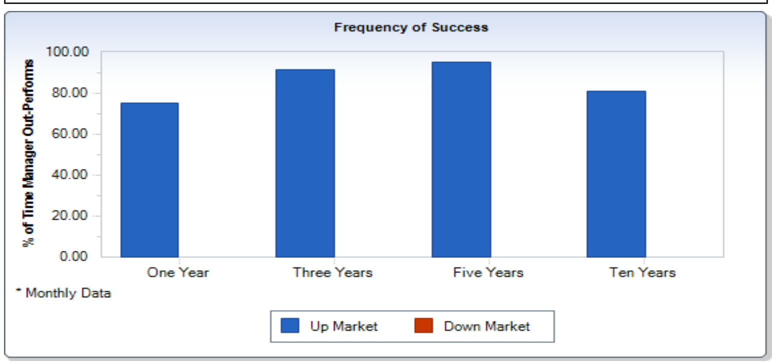
Fund Family:	VANGUARD GROUP INC	Net Assets ($MM):	$19,756.30
Asset Class:	Taxable Fixed Income	Expense Ratio:	0.10
Style Category:	Money Market Funds	Front Load:	
Objective Category:	MONEY MARKET	12B-1 Fee:	0.01
Ticker:	VMRXX	Turnover:	
Share Class:	I	Mgr Tenure:	3

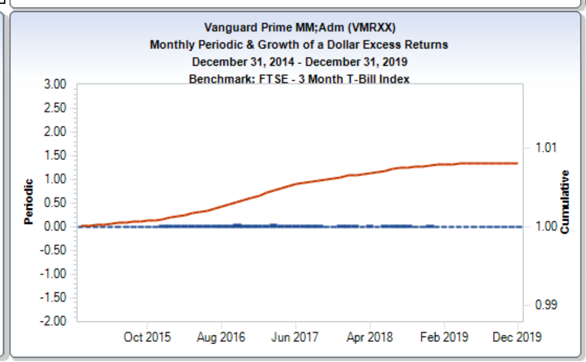
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Vanguard Prime MM;Adm (VMRXX)	2.28	1.80	1.21	0.66	2.28	2.02	1.11	0.54	0.13	0.02	0.05	0.12	0.14	0.19
FTSE 90Day Tbill	2.25	1.65	1.05	0.56	2.25	1.86	0.84	0.27	0.03	0.03	0.05	0.07	0.08	0.13
Risk - Standard Deviation														
Vanguard Prime MM;Adm (VMRXX)	0.08	0.16	0.25	0.24	0.08	0.09	0.05	0.03	0.01	0.01	0.02	0.00	0.01	0.02
FTSE 90Day Tbill	0.08	0.19	0.26	0.23	0.08	0.10	0.08	0.02	0.01	0.00	0.01	0.01	0.01	0.01
Risk - Semi-Variance														
Vanguard Prime MM;Adm (VMRXX)	0.06	0.12	0.17	0.12	0.06	0.07	0.04	0.02	0.00	0.01	0.01	0.00	0.01	0.01
FTSE 90Day Tbill	0.06	0.14	0.17	0.11	0.06	0.07	0.06	0.01	0.00	0.00	0.00	0.01	0.01	0.01
Excess Returns														
Arithmetic Excess	0.03	0.15	0.16	0.10	0.03	0.16	0.27	0.27	0.10	-0.01	0.00	0.05	0.06	0.06
Geometric Excess	0.03	0.15	0.16	0.10	0.03	0.16	0.27	0.27	0.10	-0.01	0.00	0.05	0.06	0.06

Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	0.01	0.03	0.03	0.03
Information Ratio	2.42	4.26	5.00	3.08
Downside Deviation	0.01	0.02	0.02	0.02
Skewness	0.62	0.68	0.57	1.05
Kurtosis	-1.05	-0.18	-0.31	0.85
Alpha	0.03	0.15	0.16	0.10
Beta	1.09	1.10	1.02	1.02
Residual Risk	0.01	0.03	0.03	0.03
R Squared	0.93	0.70	0.61	0.43









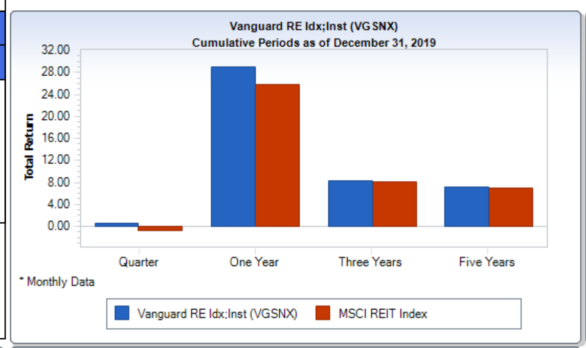
	Quarter	One Year	Three Years	Five Years
Vanguard Prime MM;Adm (VMRXX)	0.47 (32%)	2.28 (66%)	1.80 (39%)	1.21 (42%)
FTSE 90Day Tbill	0.46 (34%)	2.25 (57%)	1.65 (50%)	1.05 (52%)
# of Products	706	706	634	558

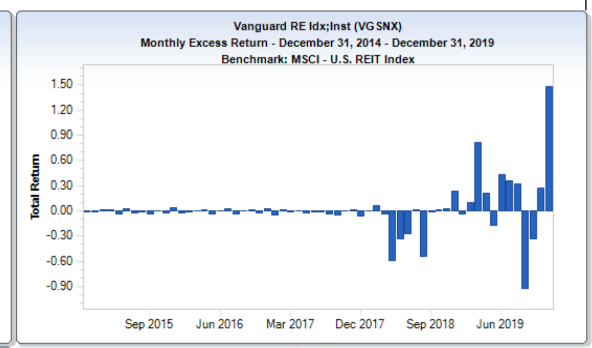
Performance Fact Sheet: Vanguard RE Idx;Inst (VGSNX)

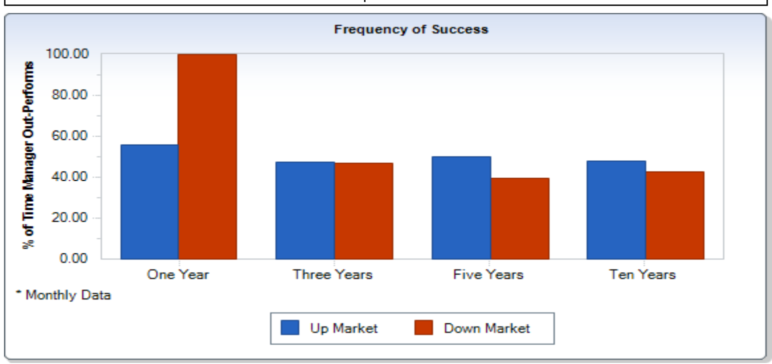
Fund Family:	VANGUARD GROUP INC	Net Assets ($MM):	$9,828.60
Asset Class:	Real Estate	Expense Ratio:	0.10
Style Category:	Real Estate Funds	Front Load:	
Objective Category:	REAL ESTATE	12B-1 Fee:	0.00
Ticker:	VGSNX	Turnover:	24.00
Share Class:	I	Mgr Tenure:	17

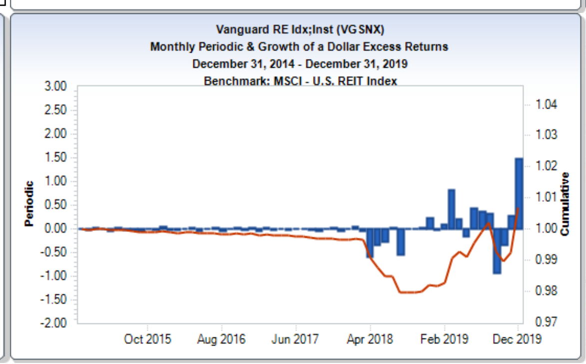
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Vanguard RE Idx;Inst (VGSNX)	29.02	8.36	7.18	11.99	29.02	-5.94	4.85	8.52	2.44	30.27	2.47	17.65	8.71	28.55
MSCI REIT Index	25.84	8.06	7.03	11.93	25.84	-4.57	5.07	8.60	2.52	30.38	2.47	17.78	8.68	28.48
Risk - Standard Deviation														
Vanguard RE Idx;Inst (VGSNX)	11.65	12.07	13.71	15.24	11.65	15.74	5.78	16.97	15.94	12.76	15.21	11.86	22.51	20.12
MSCI REIT Index	11.94	12.22	13.78	15.28	11.94	16.25	5.73	16.94	15.95	12.75	15.25	11.83	22.56	20.10
Risk - Semi-Variance														
Vanguard RE Idx;Inst (VGSNX)	5.44	8.64	9.54	10.78	5.44	12.12	3.68	10.66	11.49	9.22	11.68	8.33	15.67	14.87
MSCI REIT Index	5.75	8.74	9.59	10.81	5.75	12.56	3.67	10.65	11.50	9.21	11.69	8.31	15.69	14.86
Excess Returns														
Arithmetic Excess	3.18	0.30	0.15	0.06	3.18	-1.37	-0.22	-0.08	-0.08	-0.11	0.00	-0.13	0.03	0.07
Geometric Excess	2.53	0.28	0.14	0.05	2.53	-1.44	-0.21	-0.07	-0.08	-0.08	0.00	-0.11	0.03	0.05

Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	2.06	1.35	1.04	0.74
Information Ratio	1.23	0.21	0.13	0.08
Downside Deviation	1.41	0.83	0.63	0.44
Skewness	0.31	1.22	1.66	2.38
Kurtosis	1.76	5.83	11.29	24.34
Alpha	3.29	0.39	0.19	0.10
Beta	0.96	0.98	0.99	1.00
Residual Risk	2.03	1.34	1.04	0.74
R Squared	0.97	0.99	0.99	1.00









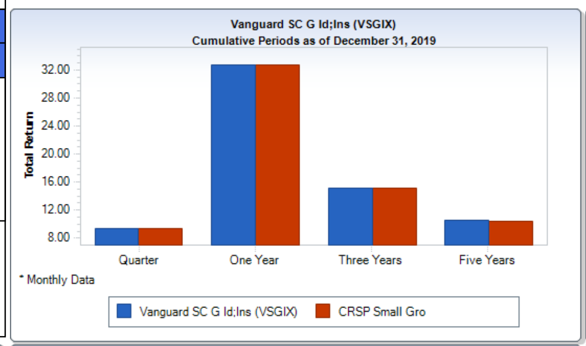
	Quarter	One Year	Three Years	Five Years
Vanguard RE Idx;Inst (VGSNX)	0.63 (29%)	29.02 (34%)	8.36 (43%)	7.18 (36%)
MSCI REIT Index	-0.78 (78%)	25.84 (64%)	8.06 (48%)	7.03 (40%)
# of Products	262	254	224	197

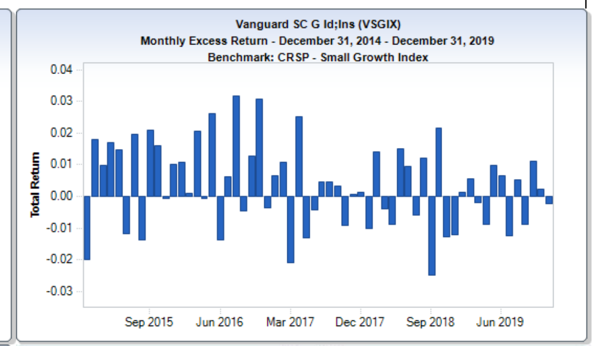
Performance Fact Sheet: Vanguard SC G Id;Ins (VSGIX)

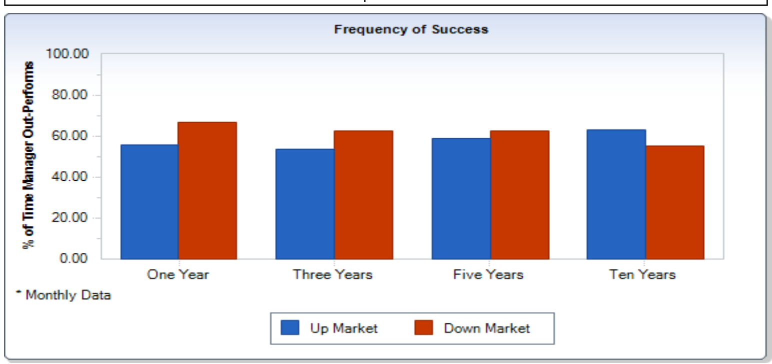
Fund Family:	VANGUARD GROUP INC	Net Assets ($MM):	$3,218.20
Asset Class:	U.S. Equity	Expense Ratio:	0.06
Style Category:	Small-Cap Growth Funds	Front Load:	0.00
Objective Category:	SMALL-CAP	12B-1 Fee:	0.00
Ticker:	VSGIX	Turnover:	22.00
Share Class:	I	Mgr Tenure:	16

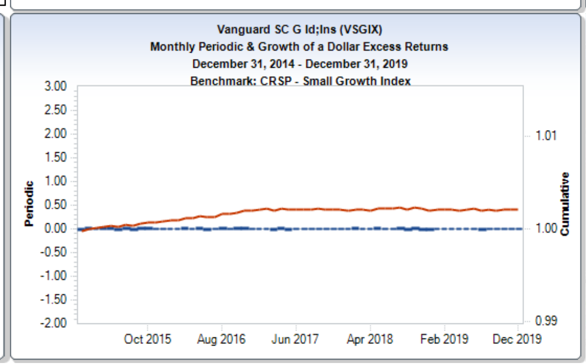
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Vanguard SC G Id;Ins (VSGIX)	32.76	15.14	10.51	13.67	32.76	-5.69	21.91	10.75	-2.52	4.03	38.19	17.67	-1.40	30.98
CRSP Small Gro	32.75	15.13	10.46	13.11	32.75	-5.68	21.90	10.62	-2.60	3.98	38.44	15.39	-3.08	29.43
Risk - Standard Deviation														
Vanguard SC G Id;Ins (VSGIX)	17.34	15.56	15.21	16.56	17.34	19.82	4.55	16.30	13.58	13.62	10.11	13.28	24.46	24.09
CRSP Small Gro	17.34	15.55	15.20	16.28	17.34	19.82	4.54	16.29	13.57	13.62	9.78	13.15	24.23	22.47
Risk - Semi-Variance														
Vanguard SC G Id;Ins (VSGIX)	11.69	11.94	11.59	12.17	11.69	16.10	3.25	12.46	10.00	9.68	7.31	10.55	15.91	18.40
CRSP Small Gro	11.70	11.95	11.59	12.02	11.70	16.11	3.24	12.46	9.99	9.68	6.99	10.37	15.94	17.08
Excess Returns														
Arithmetic Excess	0.01	0.01	0.05	0.56	0.01	-0.01	0.01	0.13	0.08	0.05	-0.25	2.28	1.68	1.55
Geometric Excess	0.01	0.01	0.05	0.50	0.01	-0.01	0.01	0.12	0.08	0.05	-0.18	1.98	1.73	1.20

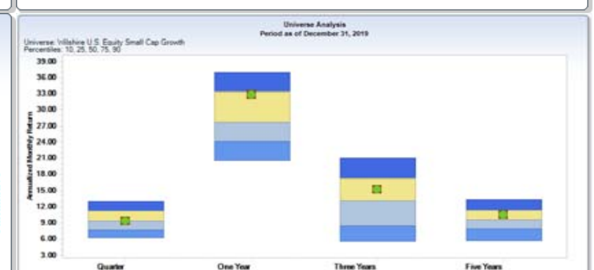
Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	0.03	0.04	0.05	1.04
Information Ratio	0.29	0.10	0.92	0.48
Downside Deviation	0.02	0.03	0.03	0.71
Skewness	-0.39	-0.03	0.05	-0.38
Kurtosis	-0.94	-0.19	-0.54	6.28
Alpha	0.01	0.00	0.04	0.33
Beta	1.00	1.00	1.00	1.02
Residual Risk	0.03	0.04	0.05	1.01
R Squared	1.00	1.00	1.00	1.00











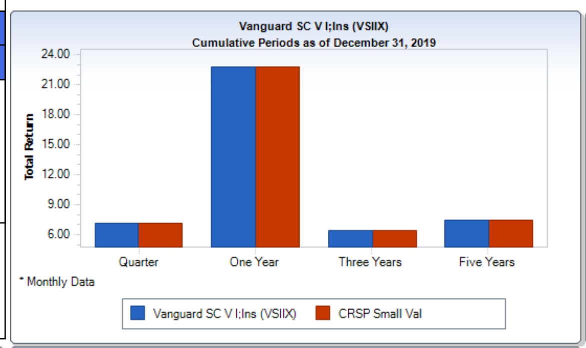
	Quarter	One Year	Three Years	Five Years
Vanguard SC G Id;Ins (VSGIX)	9.36 (51%)	32.76 (28%)	15.14 (39%)	10.51 (35%)
CRSP Small Gro	9.35 (52%)	32.75 (29%)	15.13 (39%)	10.46 (36%)
# of Products	630	630	628	544

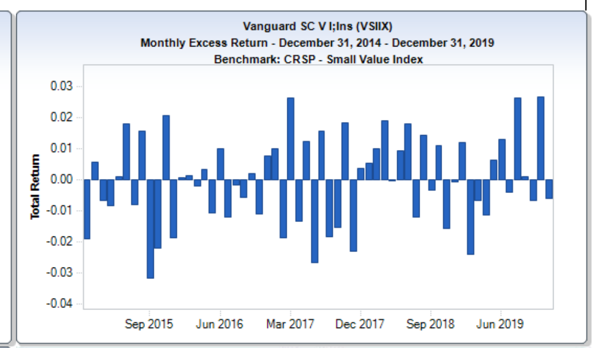
Performance Fact Sheet: Vanguard SC V I;Ins (VSIIX)

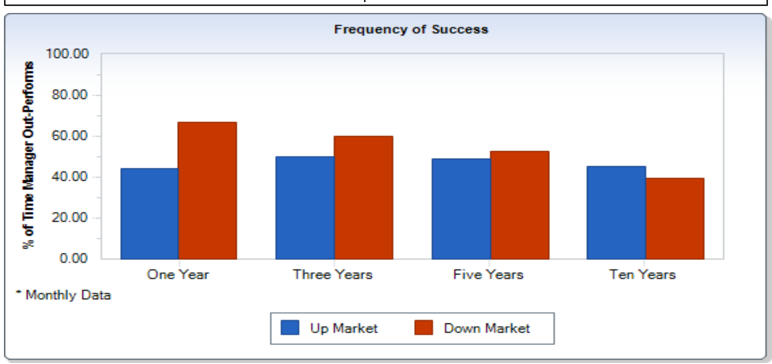
Fund Family:	VANGUARD GROUP INC	Net Assets ($MM):	$3,631.80
Asset Class:	U.S. Equity	Expense Ratio:	0.06
Style Category:	Small-Cap Core Funds	Front Load:	0.00
Objective Category:	SMALL-CAP	12B-1 Fee:	0.00
Ticker:	VSIIX	Turnover:	18.00
Share Class:	I	Mgr Tenure:	4

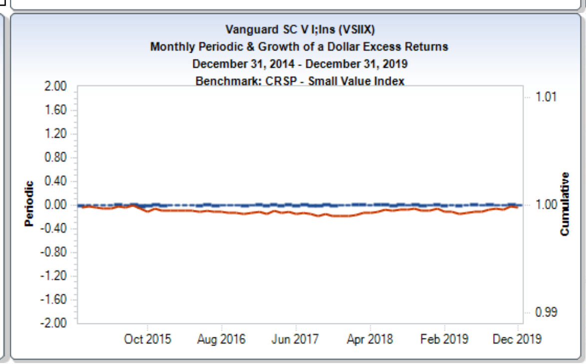
Historical Returns	Annualized Ended 12/31/2019				Annual Returns									
	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Vanguard SC V I;Ins (VSIIX)	22.80	6.42	7.47	11.92	22.80	-12.22	11.80	24.80	-4.69	10.59	36.55	18.76	-3.98	24.97
CRSP Small Val	22.76	6.40	7.47	12.90	22.76	-12.27	11.83	24.82	-4.64	10.63	38.47	20.50	0.01	27.18
Risk - Standard Deviation														
Vanguard SC V I;Ins (VSIIX)	17.89	14.99	14.77	15.79	17.89	17.14	6.89	15.82	13.01	13.07	11.11	11.42	21.81	23.37
CRSP Small Val	17.90	15.00	14.77	15.75	17.90	17.14	6.93	15.83	13.01	13.05	11.47	10.84	21.38	23.56
Risk - Semi-Variance														
Vanguard SC V I;Ins (VSIIX)	13.47	11.78	10.91	11.66	13.47	14.38	4.66	10.62	8.25	10.04	8.76	8.99	14.42	18.33
CRSP Small Val	13.49	11.79	10.91	11.66	13.49	14.38	4.68	10.63	8.24	10.02	8.92	8.82	14.53	18.39
Excess Returns														
Arithmetic Excess	0.04	0.02	0.00	-0.98	0.04	0.05	-0.03	-0.02	-0.05	-0.04	-1.92	-1.74	-3.99	-2.21
Geometric Excess	0.03	0.02	0.00	-0.87	0.03	0.06	-0.03	-0.02	-0.05	-0.04	-1.39	-1.44	-3.99	-1.74

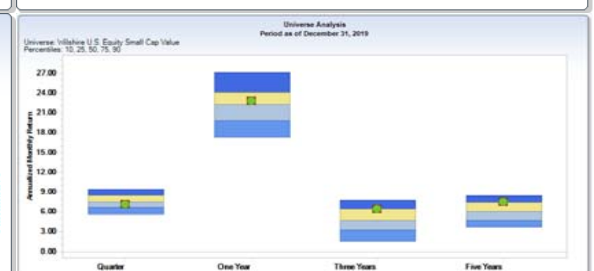
Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	0.05	0.05	0.05	0.87
Information Ratio	0.50	0.33	-0.08	-1.00
Downside Deviation	0.04	0.04	0.04	0.74
Skewness	0.26	-0.14	-0.06	-1.49
Kurtosis	-0.38	-0.98	-0.72	3.74
Alpha	0.03	0.02	0.00	-0.88
Beta	1.00	1.00	1.00	1.00
Residual Risk	0.05	0.05	0.05	0.90
R Squared	1.00	1.00	1.00	1.00











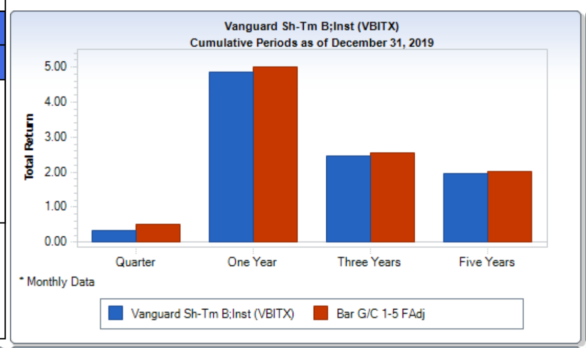
	Quarter	One Year	Three Years	Five Years
Vanguard SC V I;Ins (VSIIX)	7.15 (63%)	22.80 (39%)	6.42 (25%)	7.47 (26%)
CRSP Small Val	7.14 (64%)	22.76 (40%)	6.40 (26%)	7.47 (25%)
# of Products	319	319	319	288

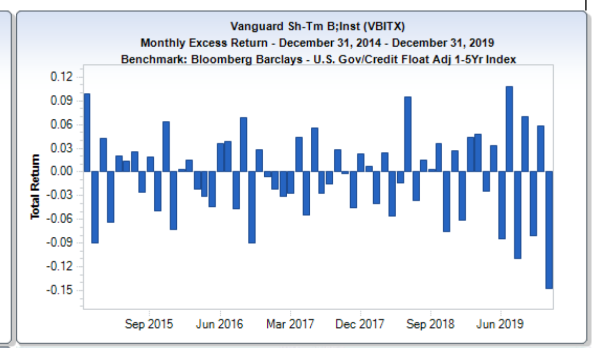
Performance Fact Sheet: Vanguard Sh-Tm B;Inst (VBITX)

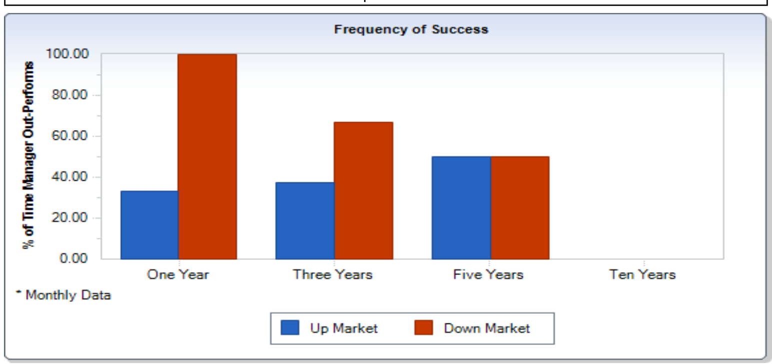
Fund Family:	VANGUARD GROUP INC	Net Assets ($MM):	$5,524.00
Asset Class:	Taxable Fixed Income	Expense Ratio:	0.05
Style Category:	Sht Inv Grade Debt Funds	Front Load:	
Objective Category:	SHORT INV GRADE DEBT	12B-1 Fee:	0.00
Ticker:	VBITX	Turnover:	48.00
Share Class:	I	Mgr Tenure:	7

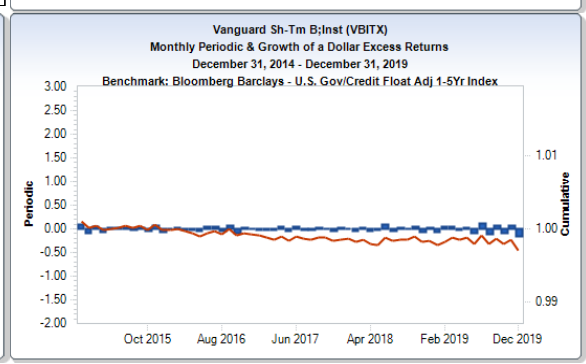
Historical Returns	Annualized Ended 12/31/2019				Annual Returns									
	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Vanguard Sh-Tm B;Inst (VBITX)	4.86	2.46	1.97	N/A	4.86	1.37	1.19	1.52	0.95	1.28	0.18	2.11	N/A	N/A
Bar G/C 1-5 FAdj	5.01	2.54	2.03	2.13	5.01	1.38	1.27	1.57	0.97	1.43	0.29	2.24	3.13	4.08
Risk - Standard Deviation														
Vanguard Sh-Tm B;Inst (VBITX)	1.46	1.35	1.45	N/A	1.46	1.50	0.82	1.79	1.45	1.02	1.24	0.81	N/A	N/A
Bar G/C 1-5 FAdj	1.56	1.38	1.43	1.37	1.56	1.47	0.84	1.75	1.30	1.08	1.29	0.85	1.32	1.77
Risk - Semi-Variance														
Vanguard Sh-Tm B;Inst (VBITX)	0.92	0.85	0.95	N/A	0.92	0.97	0.62	1.27	0.85	0.77	0.92	0.50	N/A	N/A
Bar G/C 1-5 FAdj	1.03	0.88	0.94	0.94	1.03	0.94	0.64	1.25	0.76	0.81	0.97	0.48	0.92	1.40
Excess Returns														
Arithmetic Excess	-0.15	-0.08	-0.06	N/A	-0.15	-0.01	-0.08	-0.05	-0.02	-0.15	-0.11	-0.13	N/A	N/A
Geometric Excess	-0.14	-0.08	-0.06	N/A	-0.14	-0.01	-0.08	-0.05	-0.02	-0.15	-0.11	-0.13	N/A	N/A

Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	0.29	0.20	0.19	N/A
Information Ratio	-0.51	-0.39	-0.32	N/A
Downside Deviation	0.21	0.14	0.14	N/A
Skewness	-0.21	-0.24	-0.19	N/A
Kurtosis	-1.36	-0.04	-0.24	N/A
Alpha	0.08	-0.04	-0.06	N/A
Beta	0.91	0.96	1.00	N/A
Residual Risk	0.26	0.19	0.19	N/A
R Squared	0.96	0.98	0.98	N/A







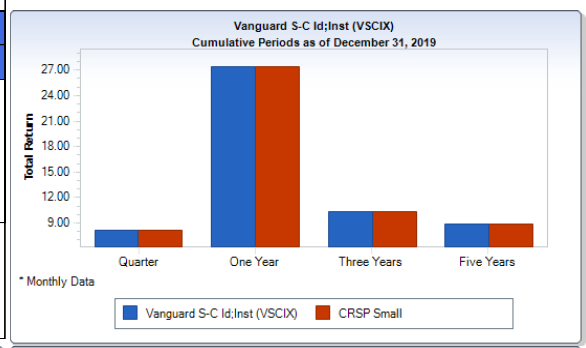


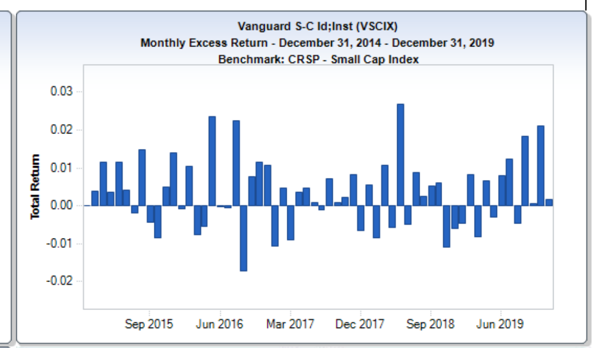
Performance Fact Sheet: Vanguard S-C Id;Inst (VSCIX)

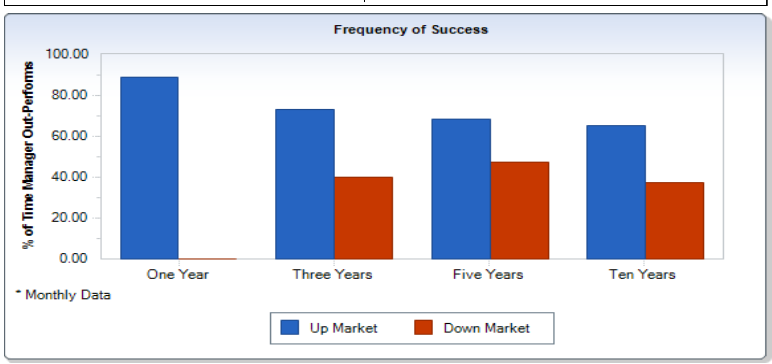
Fund Family:	VANGUARD GROUP INC	Net Assets ($MM):	$17,336.60
Asset Class:	U.S. Equity	Expense Ratio:	0.04
Style Category:	Small-Cap Core Funds	Front Load:	0.00
Objective Category:	SMALL-CAP	12B-1 Fee:	0.00
Ticker:	VSCIX	Turnover:	15.00
Share Class:	I	Mgr Tenure:	4

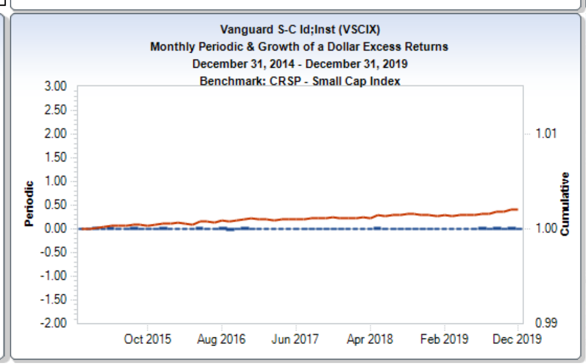
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Vanguard S-C Id;Inst (VSCIX)	27.42	10.34	8.91	12.83	27.42	-9.30	16.24	18.33	-3.63	7.52	37.82	18.26	-2.64	27.92
CRSP Small	27.35	10.31	8.86	12.99	27.35	-9.33	16.24	18.26	-3.68	7.54	38.48	18.59	-1.85	27.98
Risk - Standard Deviation														
Vanguard S-C Id;Inst (VSCIX)	17.12	14.94	14.65	15.96	17.12	18.17	5.66	15.84	12.98	13.05	10.43	12.31	23.08	23.66
CRSP Small	17.12	14.93	14.64	15.77	17.12	18.15	5.66	15.84	12.99	13.04	10.59	11.93	22.50	22.97
Risk - Semi-Variance														
Vanguard S-C Id;Inst (VSCIX)	12.24	11.71	11.05	11.78	12.24	15.11	3.90	11.40	8.79	9.59	7.93	9.75	15.14	18.37
CRSP Small	12.22	11.70	11.04	11.67	12.22	15.10	3.90	11.40	8.80	9.58	8.00	9.55	14.99	17.78
Excess Returns														
Arithmetic Excess	0.07	0.03	0.05	-0.16	0.07	0.03	0.00	0.07	0.05	-0.02	-0.66	-0.33	-0.79	-0.06
Geometric Excess	0.05	0.03	0.05	-0.14	0.05	0.03	0.00	0.06	0.05	-0.02	-0.48	-0.28	-0.80	-0.05

Excess Statistics	Annualized Ended 12/31/2019			
Manager vs. Benchmark	1 Year	3 Years	5 Years	10 Years
Tracking Error	0.03	0.03	0.03	0.57
Information Ratio	1.75	1.01	1.26	-0.25
Downside Deviation	0.02	0.02	0.02	0.44
Skewness	0.43	0.69	0.37	-0.63
Kurtosis	-0.83	0.62	0.07	6.79
Alpha	0.05	0.03	0.04	-0.27
Beta	1.00	1.00	1.00	1.01
Residual Risk	0.03	0.03	0.03	0.55
R Squared	1.00	1.00	1.00	1.00







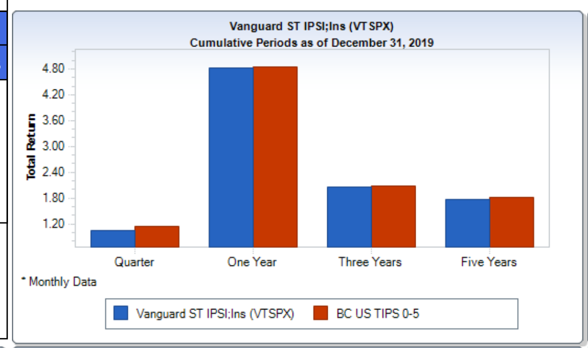


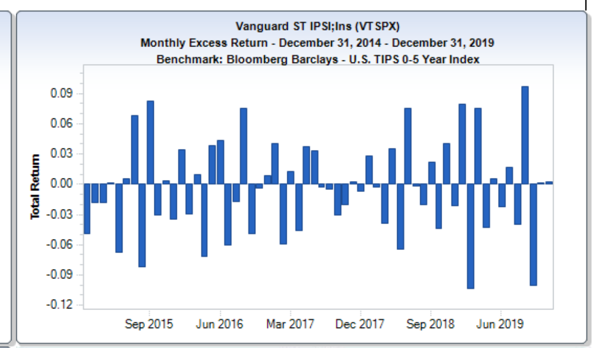
Performance Fact Sheet: Vanguard ST IPSI;Ins (VTSPX)

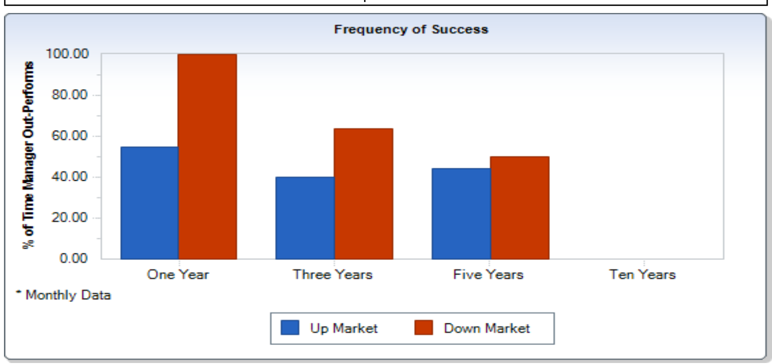
Fund Family:	VANGUARD GROUP INC	Net Assets ($MM):	$10,598.30
Asset Class:	Taxable Fixed Income	Expense Ratio:	0.04
Style Category:	Infl Protected Bd Fds	Front Load:	
Objective Category:	INFLATION PROTECTED	12B-1 Fee:	0.00
Ticker:	VTSPX	Turnover:	26.00
Share Class:	I	Mgr Tenure:	8

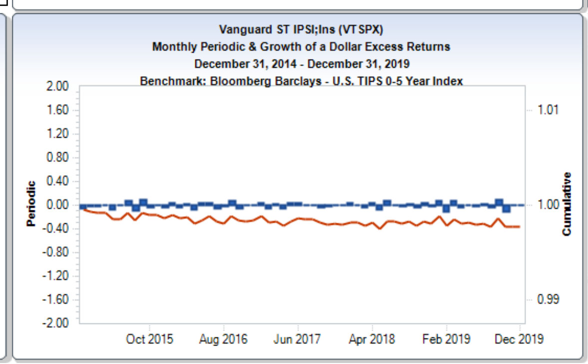
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Vanguard ST IPSI;Ins (VTSPX)	4.82	2.06	1.76	N/A	4.82	0.60	0.83	2.79	-0.16	-1.11	-1.53	N/A	N/A	N/A
BC US TIPS 0-5	4.85	2.09	1.81	1.64	4.85	0.59	0.88	2.81	-0.02	-1.13	-1.59	2.40	4.51	3.30
Risk - Standard Deviation														
Vanguard ST IPSI;Ins (VTSPX)	1.12	1.11	1.32	N/A	1.12	1.02	0.83	1.74	1.36	1.99	1.84	N/A	N/A	N/A
BC US TIPS 0-5	1.09	1.12	1.30	1.72	1.09	1.06	0.83	1.66	1.38	2.06	1.76	1.42	2.82	1.76
Risk - Semi-Variance														
Vanguard ST IPSI;Ins (VTSPX)	0.81	0.75	0.84	N/A	0.81	0.71	0.60	1.14	0.67	1.54	1.38	N/A	N/A	N/A
BC US TIPS 0-5	0.84	0.78	0.84	1.19	0.84	0.71	0.63	1.10	0.66	1.60	1.32	0.91	1.99	1.26
Excess Returns														
Arithmetic Excess	-0.03	-0.03	-0.05	N/A	-0.03	0.01	-0.05	-0.02	-0.14	0.02	0.06	N/A	N/A	N/A
Geometric Excess	-0.03	-0.03	-0.05	N/A	-0.03	0.01	-0.05	-0.02	-0.14	0.02	0.06	N/A	N/A	N/A

Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	0.23	0.16	0.16	N/A
Information Ratio	-0.14	-0.14	-0.28	N/A
Downside Deviation	0.16	0.11	0.11	N/A
Skewness	-0.02	-0.01	0.12	N/A
Kurtosis	-0.66	0.10	-0.28	N/A
Alpha	-0.04	-0.02	-0.05	N/A
Beta	1.00	0.99	1.01	N/A
Residual Risk	0.23	0.16	0.16	N/A
R Squared	0.95	0.98	0.98	N/A







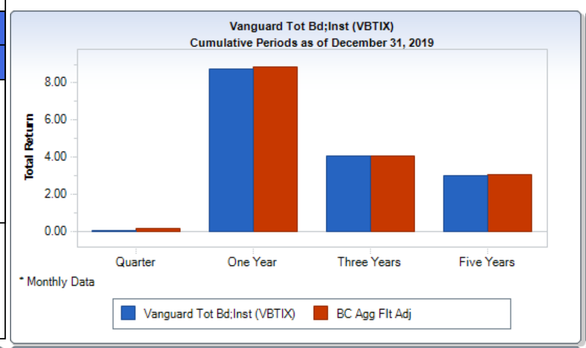


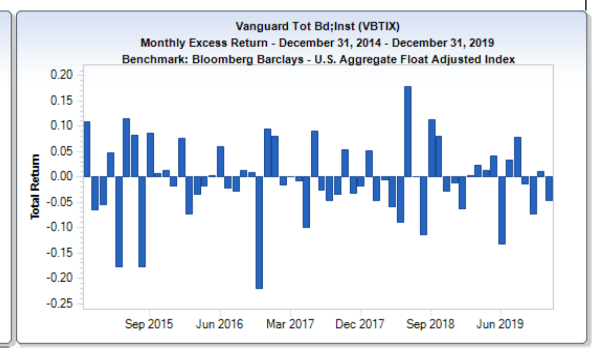
Performance Fact Sheet: Vanguard Tot Bd;Inst (VBTIX)

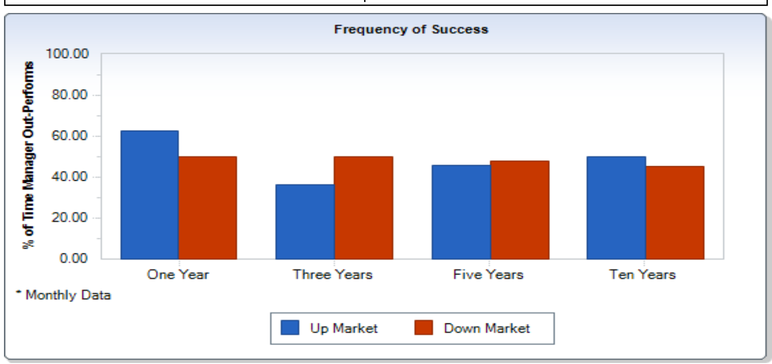
Fund Family:	VANGUARD GROUP INC	Net Assets ($MM):	$47,477.20
Asset Class:	Taxable Fixed Income	Expense Ratio:	0.04
Style Category:	Core Bond Funds	Front Load:	
Objective Category:	CORE BOND	12B-1 Fee:	0.00
Ticker:	VBTIX	Turnover:	54.00
Share Class:	I	Mgr Tenure:	7

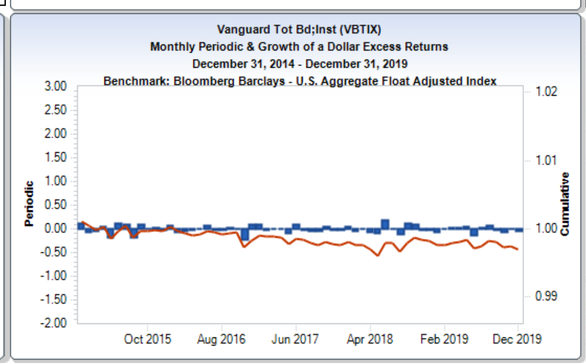
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Vanguard Tot Bd;Inst (VBTIX)	8.73	4.03	3.01	3.70	8.73	-0.01	3.57	2.61	0.40	5.89	-2.15	4.20	7.72	6.57
BC Agg Flt Adj	8.87	4.08	3.07	3.77	8.87	-0.08	3.63	2.75	0.44	5.85	-1.97	4.32	7.92	6.57
Risk - Standard Deviation														
Vanguard Tot Bd;Inst (VBTIX)	3.61	2.94	3.20	2.98	3.61	3.02	1.47	4.03	3.22	2.31	3.20	2.09	2.53	3.05
BC Agg Flt Adj	3.55	2.97	3.15	2.92	3.55	3.11	1.54	3.83	3.08	2.28	3.17	2.07	2.39	2.92
Risk - Semi-Variance														
Vanguard Tot Bd;Inst (VBTIX)	2.19	1.85	2.17	2.10	2.19	2.01	1.10	3.21	1.83	1.69	2.38	1.31	1.78	2.28
BC Agg Flt Adj	2.19	1.89	2.13	2.06	2.19	2.05	1.11	3.02	1.81	1.70	2.37	1.31	1.65	2.22
Excess Returns														
Arithmetic Excess	-0.14	-0.05	-0.06	-0.07	-0.14	0.07	-0.06	-0.14	-0.04	0.04	-0.18	-0.12	-0.20	0.00
Geometric Excess	-0.13	-0.05	-0.06	-0.07	-0.13	0.07	-0.06	-0.14	-0.04	0.04	-0.18	-0.12	-0.19	0.00

Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	0.20	0.23	0.26	0.25
Information Ratio	-0.63	-0.17	-0.23	-0.30
Downside Deviation	0.16	0.15	0.19	0.18
Skewness	-0.68	0.48	-0.37	-0.33
Kurtosis	0.22	0.56	0.73	0.50
Alpha	-0.23	-0.01	-0.09	-0.13
Beta	1.02	0.99	1.02	1.02
Residual Risk	0.20	0.23	0.26	0.25
R Squared	1.00	0.99	0.99	0.99







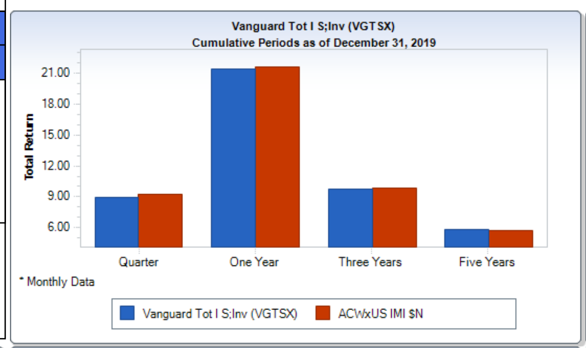


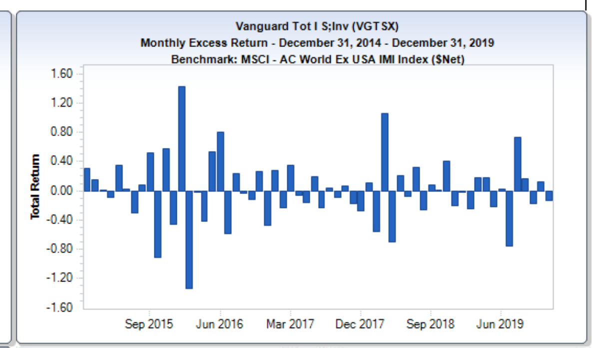
Performance Fact Sheet: Vanguard Tot I S;Inv (VGTSX)

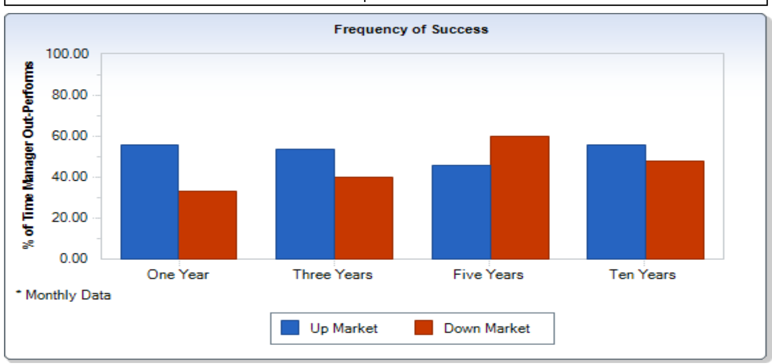
Fund Family:	VANGUARD GROUP INC	Net Assets ($MM):	$156,432.70
Asset Class:	Non U.S. Equity	Expense Ratio:	0.17
Style Category:	International Multi-Cap Core	Front Load:	0.00
Objective Category:	INTERNATIONAL	12B-1 Fee:	0.02
Ticker:	VGTSX	Turnover:	3.00
Share Class:	Investor	Mgr Tenure:	12

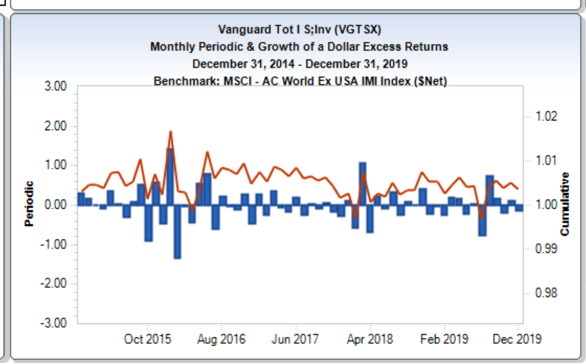
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Vanguard Tot I S;Inv (VGTSX)	21.43	9.80	5.79	5.05	21.43	-14.44	27.40	4.66	-4.37	-4.25	15.04	18.12	-14.56	11.11
ACWxUS IMI $N	21.63	9.84	5.71	5.21	21.63	-14.76	27.81	4.41	-4.60	-3.89	15.82	17.03	-14.31	12.73
Risk - Standard Deviation														
Vanguard Tot I S;Inv (VGTSX)	12.64	11.59	12.14	14.71	12.64	12.99	3.79	12.43	14.01	10.52	11.42	16.77	20.22	23.47
ACWxUS IMI $N	12.63	11.50	12.47	14.57	12.63	12.64	3.77	13.56	14.70	9.86	11.48	16.79	19.89	22.10
Risk - Semi-Variance														
Vanguard Tot I S;Inv (VGTSX)	9.51	9.05	8.84	10.68	9.51	9.42	2.64	8.03	8.99	7.72	7.94	13.93	14.25	16.27
ACWxUS IMI $N	9.48	8.94	9.06	10.61	9.48	9.04	2.71	9.14	9.29	7.21	8.01	14.02	13.96	15.56
Excess Returns														
Arithmetic Excess	-0.20	-0.04	0.08	-0.16	-0.20	0.32	-0.41	0.25	0.23	-0.36	-0.78	1.09	-0.25	-1.62
Geometric Excess	-0.16	-0.04	0.08	-0.15	-0.16	0.38	-0.32	0.24	0.24	-0.37	-0.67	0.93	-0.29	-1.44

Excess Statistics	Annualized Ended 12/31/2019			
Manager vs. Benchmark	1 Year	3 Years	5 Years	10 Years
Tracking Error	1.23	1.20	1.55	1.83
Information Ratio	-0.14	-0.03	0.05	-0.08
Downside Deviation	0.87	0.80	1.08	1.25
Skewness	-0.02	0.52	0.15	0.62
Kurtosis	2.30	2.03	2.09	3.79
Alpha	-0.11	-0.05	0.22	-0.16
Beta	1.00	1.00	0.97	1.00
Residual Risk	1.21	1.19	1.48	1.81
R Squared	0.99	0.99	0.99	0.98







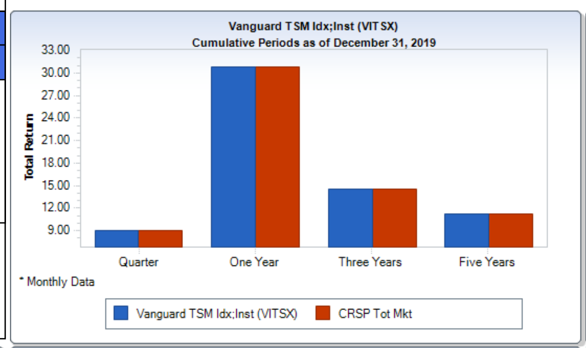


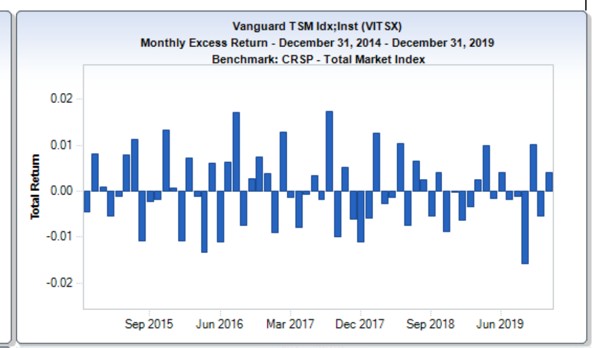
Performance Fact Sheet: Vanguard TSM Idx;Inst (VITSX)

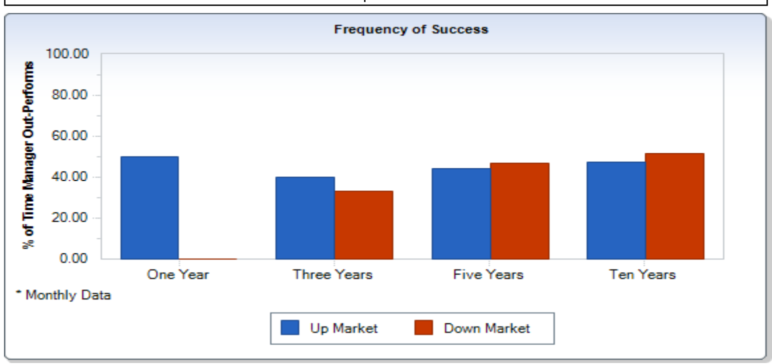
Fund Family:	VANGUARD GROUP INC	Net Assets ($MM):	$152,714.80
Asset Class:	U.S. Equity	Expense Ratio:	0.03
Style Category:	Multi-Cap Core Funds	Front Load:	0.00
Objective Category:	GROWTH & INCOME	12B-1 Fee:	0.00
Ticker:	VITSX	Turnover:	3.00
Share Class:	I	Mgr Tenure:	4

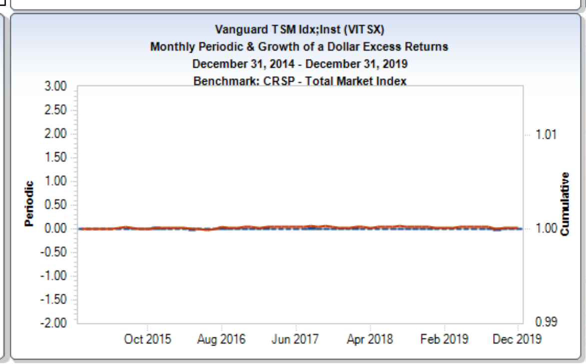
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Vanguard TSM Idx;Inst (VITSX)	30.83	14.56	11.21	13.43	30.83	-5.16	21.18	12.68	0.42	12.57	33.49	16.42	1.09	17.22
CRSP Tot Mkt	30.84	14.56	11.21	13.45	30.84	-5.17	21.19	12.68	0.40	12.58	33.64	16.22	0.70	17.87
Risk - Standard Deviation														
Vanguard TSM Idx;Inst (VITSX)	13.44	12.38	12.22	12.87	13.44	15.54	3.85	11.27	13.23	8.74	8.67	10.77	17.03	19.87
CRSP Tot Mkt	13.44	12.38	12.22	12.85	13.44	15.55	3.85	11.26	13.22	8.75	8.68	10.75	16.94	19.78
Risk - Semi-Variance														
Vanguard TSM Idx;Inst (VITSX)	10.34	10.00	9.29	9.64	10.34	12.52	2.55	8.03	8.34	6.41	6.90	8.78	11.13	14.96
CRSP Tot Mkt	10.33	10.00	9.29	9.62	10.33	12.52	2.56	8.02	8.33	6.42	6.91	8.75	11.07	14.89
Excess Returns														
Arithmetic Excess	-0.01	0.00	0.00	-0.02	-0.01	0.01	-0.01	0.00	0.02	-0.01	-0.15	0.20	0.39	-0.65
Geometric Excess	-0.01	0.00	0.00	-0.02	-0.01	0.01	-0.01	0.00	0.02	-0.01	-0.11	0.17	0.39	-0.55

Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	0.02	0.03	0.03	0.12
Information Ratio	-0.18	-0.12	0.10	-0.08
Downside Deviation	0.02	0.02	0.02	0.10
Skewness	-0.43	0.36	0.19	-1.33
Kurtosis	0.70	-0.30	-0.59	7.33
Alpha	-0.01	0.00	0.00	-0.03
Beta	1.00	1.00	1.00	1.00
Residual Risk	0.03	0.03	0.03	0.12
R Squared	1.00	1.00	1.00	1.00







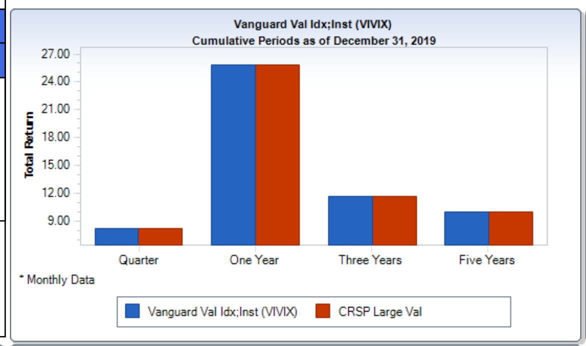


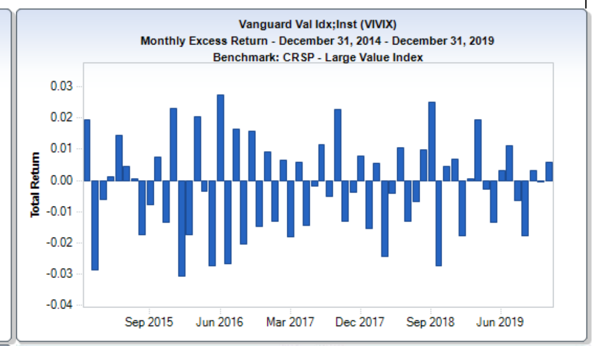
Performance Fact Sheet: Vanguard Val Idx;Inst (VIVIX)

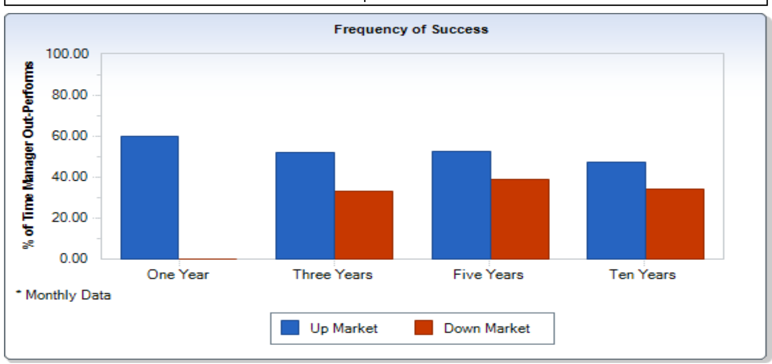
Fund Family:	VANGUARD GROUP INC	Net Assets ($MM):	$12,481.50
Asset Class:	U.S. Equity	Expense Ratio:	0.04
Style Category:	Large-Cap Value Funds	Front Load:	
Objective Category:	GROWTH & INCOME	12B-1 Fee:	0.00
Ticker:	VIVIX	Turnover:	8.00
Share Class:	I	Mgr Tenure:	22

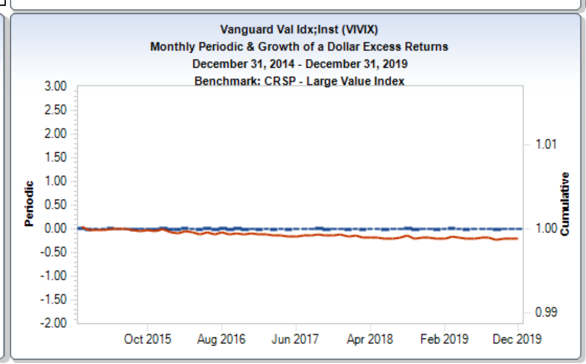
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Vanguard Val Idx;Inst (VIVIX)	25.83	11.71	10.06	12.50	25.83	-5.43	17.14	16.87	-0.86	13.20	33.08	15.21	1.16	14.50
CRSP Large Val	25.85	11.73	10.09	12.87	25.85	-5.40	17.16	16.93	-0.86	13.29	33.34	16.71	1.43	16.06
Risk - Standard Deviation														
Vanguard Val Idx;Inst (VIVIX)	13.05	11.92	11.79	12.30	13.05	14.65	5.28	10.52	12.99	7.64	9.28	10.07	16.43	18.37
CRSP Large Val	13.05	11.92	11.78	12.21	13.05	14.64	5.26	10.50	12.99	7.60	9.24	9.90	15.58	18.56
Risk - Semi-Variance														
Vanguard Val Idx;Inst (VIVIX)	10.29	9.46	8.86	9.21	10.29	11.52	3.67	7.29	8.35	6.03	7.27	8.24	10.98	13.60
CRSP Large Val	10.28	9.45	8.85	9.10	10.28	11.52	3.65	7.27	8.35	6.01	7.26	7.95	10.21	13.69
Excess Returns														
Arithmetic Excess	-0.02	-0.02	-0.03	-0.37	-0.02	-0.03	-0.02	-0.06	0.00	-0.09	-0.26	-1.50	-0.27	-1.56
Geometric Excess	-0.02	-0.02	-0.03	-0.33	-0.02	-0.03	-0.02	-0.05	0.00	-0.08	-0.19	-1.29	-0.27	-1.34

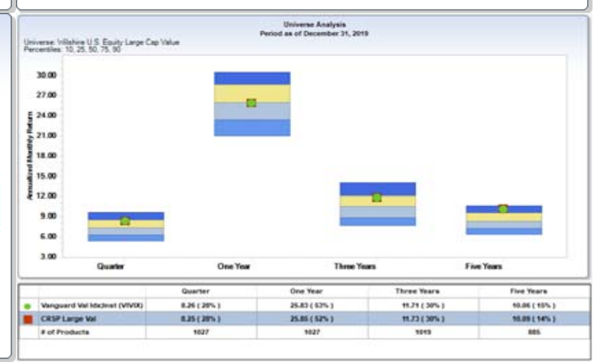
Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	0.04	0.04	0.05	0.62
Information Ratio	-0.40	-0.45	-0.44	-0.53
Downside Deviation	0.03	0.03	0.04	0.53
Skewness	0.04	0.03	-0.03	-2.25
Kurtosis	-0.28	-0.49	-0.82	9.68
Alpha	-0.01	-0.02	-0.03	-0.39
Beta	1.00	1.00	1.00	1.01
Residual Risk	0.04	0.04	0.05	0.62
R Squared	1.00	1.00	1.00	1.00











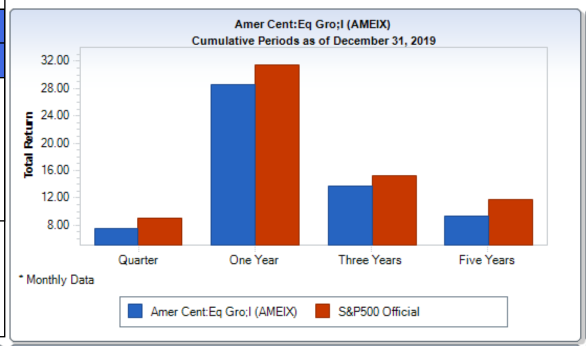
VI. Advisor Plan Fact Sheets

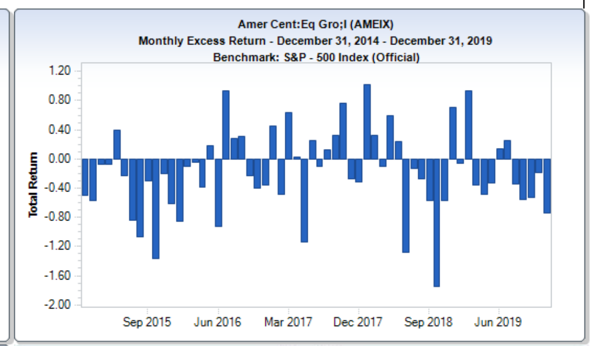
Performance Fact Sheet: Amer Cent:Eq Gro;I (AMEIX)

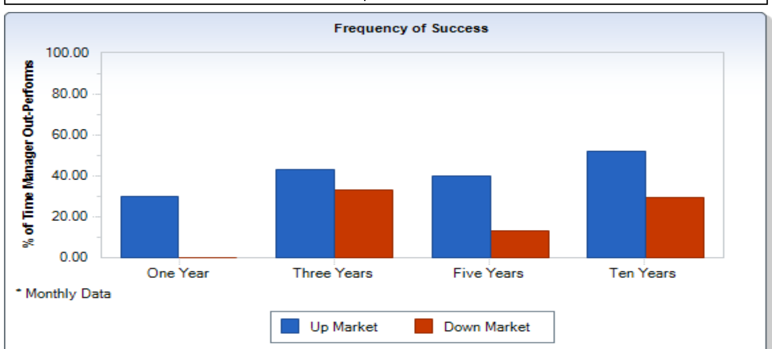
Fund Family:	AMERICAN CENTURY INVESTMENT MGMT INC	Net Assets ($MM):	$420.40
Asset Class:	U.S. Equity	Expense Ratio:	0.47
Style Category:	Multi-Cap Core Funds	Front Load:	
Objective Category:	GROWTH	12B-1 Fee:	
Ticker:	AMEIX	Turnover:	80.00
Share Class:	I	Mgr Tenure:	15

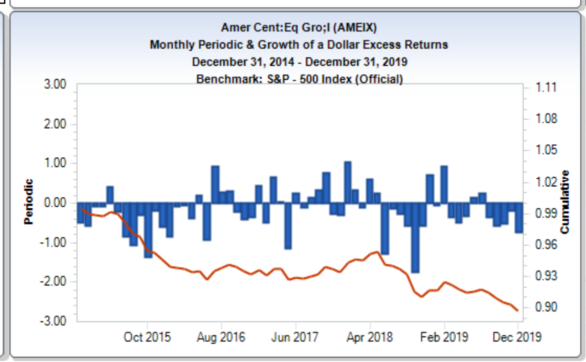
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Amer Cent:Eq Gro;I (AMEIX)	28.57	13.81	9.29	12.68	28.57	-6.12	22.12	10.18	-4.00	13.57	33.26	16.53	4.24	15.13
S&P500 Official	31.49	15.27	11.70	13.56	31.49	-4.38	21.83	11.96	1.38	13.69	32.39	16.00	2.11	15.06
Risk - Standard Deviation														
Amer Cent:Eq Gro;I (AMEIX)	13.32	12.55	12.37	12.85	13.32	16.08	3.87	11.14	13.24	8.39	9.13	11.44	16.63	19.22
S&P500 Official	12.89	12.10	11.98	12.46	12.89	15.33	3.94	10.29	13.66	8.26	8.48	10.52	15.94	19.26
Risk - Semi-Variance														
Amer Cent:Eq Gro;I (AMEIX)	10.27	10.06	9.45	9.64	10.27	12.44	2.62	7.89	8.83	6.39	7.28	9.27	10.61	14.45
S&P500 Official	10.08	9.80	9.07	9.33	10.08	12.19	2.58	7.17	8.52	6.20	6.87	8.57	10.29	14.37
Excess Returns														
Arithmetic Excess	-2.92	-1.46	-2.41	-0.88	-2.92	-1.74	0.29	-1.78	-5.38	-0.12	0.87	0.53	2.13	0.07
Geometric Excess	-2.22	-1.27	-2.16	-0.77	-2.22	-1.82	0.24	-1.59	-5.31	-0.11	0.66	0.46	2.09	0.06

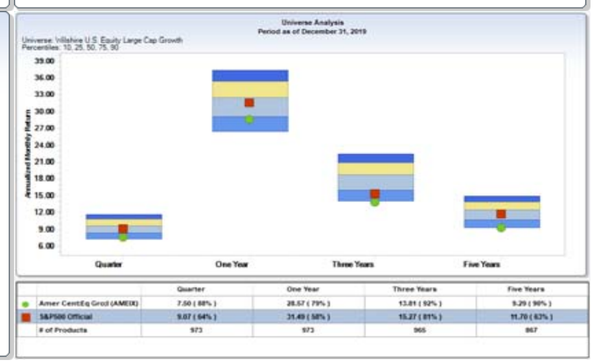
Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	1.59	2.11	1.99	1.78
Information Ratio	-1.40	-0.60	-1.08	-0.43
Downside Deviation	0.89	1.54	1.43	1.29
Skewness	1.42	-0.41	-0.16	-0.28
Kurtosis	2.37	0.55	0.27	0.44
Alpha	-2.76	-1.54	-2.33	-1.03
Beta	1.03	1.02	1.02	1.02
Residual Risk	1.59	2.08	1.99	1.77
R Squared	0.99	0.97	0.97	0.98









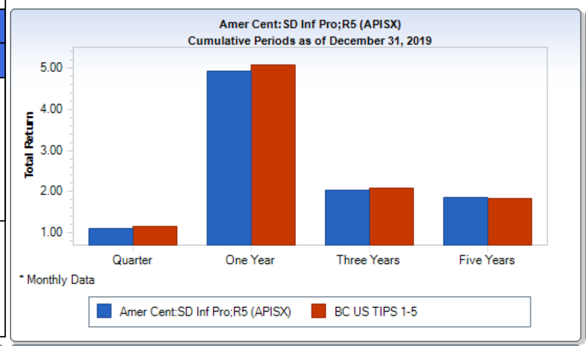


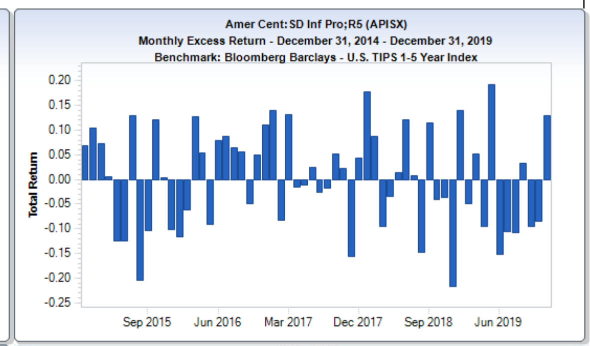
Performance Fact Sheet: Amer Cent:SD Inf Pro;R5 (APISX)

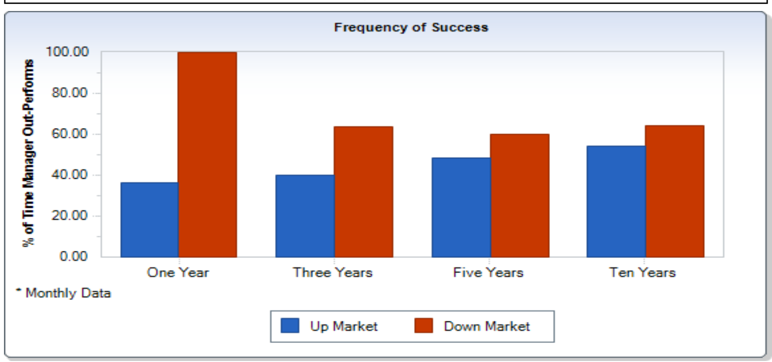
Fund Family:	AMERICAN CENTURY INVESTMENT MGMT INC	Net Assets ($MM):	$449.80
Asset Class:	Taxable Fixed Income	Expense Ratio:	0.37
Style Category:	Infl Protected Bd Fds	Front Load:	
Objective Category:	INFLATION PROTECTED	12B-1 Fee:	
Ticker:	APISX	Turnover:	31.00
Share Class:	I	Mgr Tenure:	

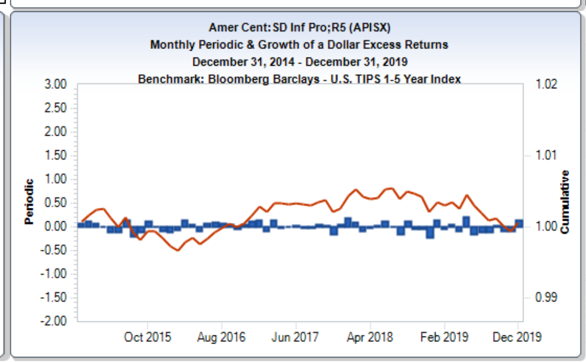
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Amer Cent:SD Inf Pro;R5 (APISX)	4.93	2.04	1.85	2.36	4.93	0.36	0.91	3.45	-0.30	-1.50	-2.09	3.53	9.13	5.74
BC US TIPS 1-5	5.08	2.07	1.84	1.73	5.08	0.41	0.80	3.14	-0.15	-1.13	-1.96	2.65	4.88	3.86
Risk - Standard Deviation														
Amer Cent:SD Inf Pro;R5 (APISX)	1.46	1.32	1.58	2.84	1.46	1.04	1.12	2.03	1.74	2.18	2.48	1.73	4.77	5.37
BC US TIPS 1-5	1.28	1.28	1.51	1.97	1.28	1.21	0.97	1.96	1.64	2.34	2.13	1.61	3.13	1.98
Risk - Semi-Variance														
Amer Cent:SD Inf Pro;R5 (APISX)	1.06	0.88	0.98	1.75	1.06	0.70	0.81	1.33	0.82	1.72	1.92	1.08	2.76	3.89
BC US TIPS 1-5	0.99	0.89	0.97	1.36	0.99	0.81	0.73	1.31	0.75	1.82	1.61	1.01	2.22	1.39
Excess Returns														
Arithmetic Excess	-0.15	-0.03	0.01	0.63	-0.15	-0.05	0.11	0.31	-0.15	-0.37	-0.13	0.88	4.25	1.88
Geometric Excess	-0.14	-0.03	0.01	0.62	-0.14	-0.05	0.11	0.30	-0.15	-0.37	-0.13	0.86	4.05	1.81

Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	0.40	0.36	0.35	1.59
Information Ratio	-0.36	-0.08	0.04	0.39
Downside Deviation	0.25	0.25	0.25	0.98
Skewness	0.64	0.07	-0.14	1.34
Kurtosis	-1.13	-0.72	-0.90	11.59
Alpha	-0.42	-0.03	0.00	0.37
Beta	1.10	1.00	1.02	1.22
Residual Risk	0.39	0.36	0.35	1.54
R Squared	0.93	0.92	0.95	0.70







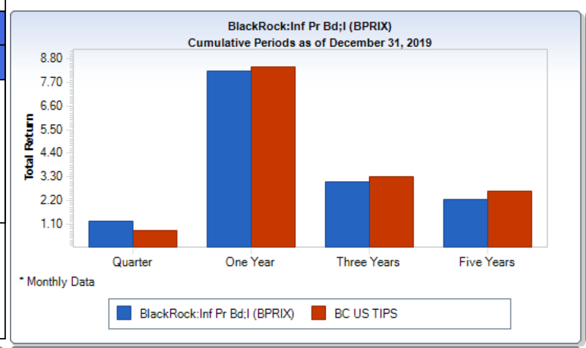


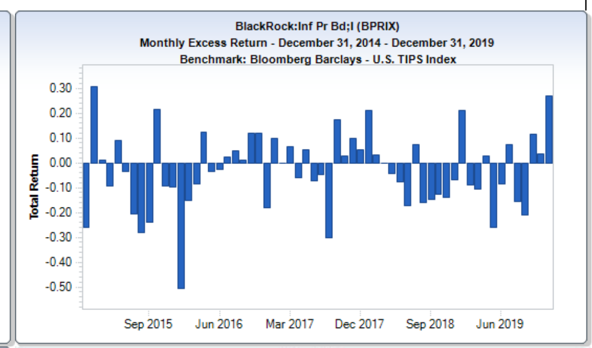
Performance Fact Sheet: BlackRock:Inf Pr Bd;I (BPRIX)

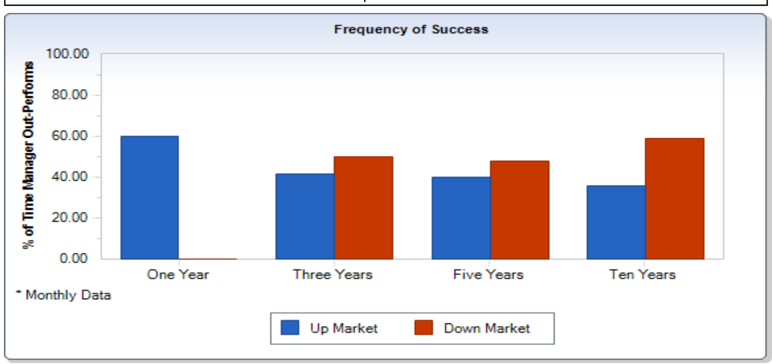
Fund Family:	BLACKROCK INC	Net Assets ($MM):	$1,344.30
Asset Class:	Taxable Fixed Income	Expense Ratio:	0.50
Style Category:	Infl Protected Bd Fds	Front Load:	
Objective Category:	INFLATION PROTECTED	12B-1 Fee:	
Ticker:	BPRIX	Turnover:	176.00
Share Class:	I	Mgr Tenure:	2

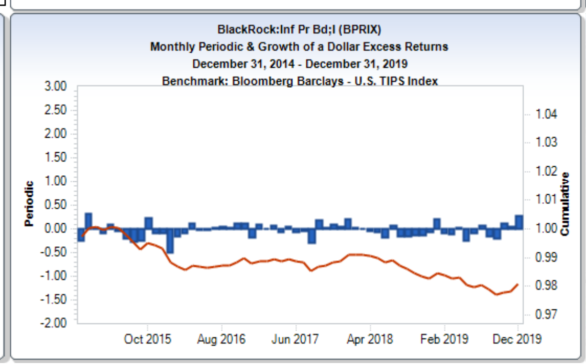
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
BlackRock:Inf Pr Bd;I (BPRIX)	8.24	3.07	2.22	2.95	8.24	-1.87	3.09	4.12	-2.11	2.63	-8.11	6.95	11.87	6.22
BC US TIPS	8.43	3.32	2.62	3.36	8.43	-1.26	3.01	4.68	-1.44	3.64	-8.61	6.98	13.56	6.31
Risk - Standard Deviation														
BlackRock:Inf Pr Bd;I (BPRIX)	3.45	2.96	3.33	4.14	3.45	2.77	2.00	3.77	3.87	4.65	5.86	3.50	3.84	4.75
BC US TIPS	3.48	3.00	3.44	4.35	3.48	2.85	2.11	4.03	4.08	4.45	6.18	4.07	4.07	5.11
Risk - Semi-Variance														
BlackRock:Inf Pr Bd;I (BPRIX)	2.57	2.19	2.29	3.04	2.57	2.09	1.58	2.78	1.91	3.53	4.65	2.36	2.19	3.50
BC US TIPS	2.43	2.16	2.32	3.16	2.43	2.13	1.62	2.97	2.00	3.40	4.95	2.77	2.19	3.70
Excess Returns														
Arithmetic Excess	-0.19	-0.25	-0.40	-0.41	-0.19	-0.61	0.08	-0.56	-0.67	-1.01	0.50	-0.03	-1.69	-0.09
Geometric Excess	-0.18	-0.24	-0.39	-0.40	-0.18	-0.62	0.08	-0.53	-0.68	-0.97	0.55	-0.03	-1.49	-0.08

Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	0.57	0.46	0.53	0.59
Information Ratio	-0.30	-0.51	-0.73	-0.67
Downside Deviation	0.39	0.32	0.38	0.43
Skewness	0.27	0.08	-0.28	-0.18
Kurtosis	-0.80	-0.29	0.64	0.00
Alpha	-0.07	-0.20	-0.32	-0.24
Beta	0.98	0.98	0.95	0.94
Residual Risk	0.57	0.46	0.51	0.54
R Squared	0.97	0.98	0.98	0.98







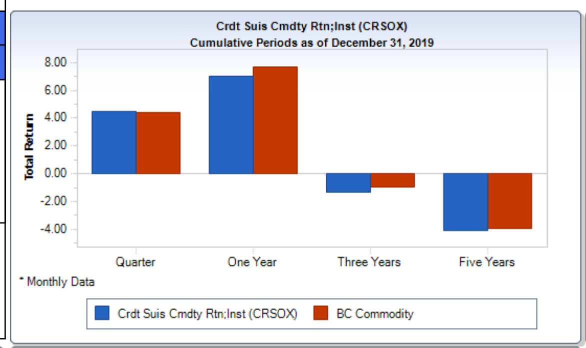


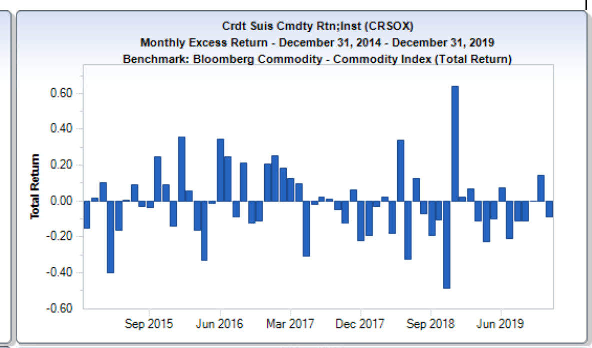
Performance Fact Sheet: Crdt Suis Cmdty Rtn;Inst (CRSOX)

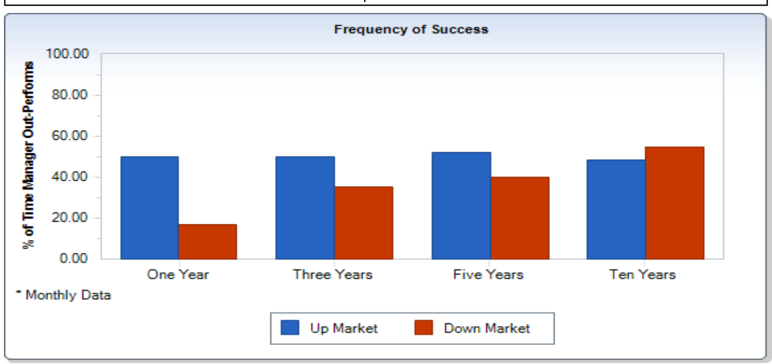
Fund Family:	CREDIT SUISSE ASSET MANAGEMENT LLC		Net Assets ($MM):	
Asset Class:	U.S. Equity		Expense Ratio:	0.78
Style Category:	Commodities General		Front Load:	
Objective Category:	COMMODITIES		12B-1 Fee:	
Ticker:	CRSOX		Turnover:	90.00
Share Class:	I		Mgr Tenure:	15

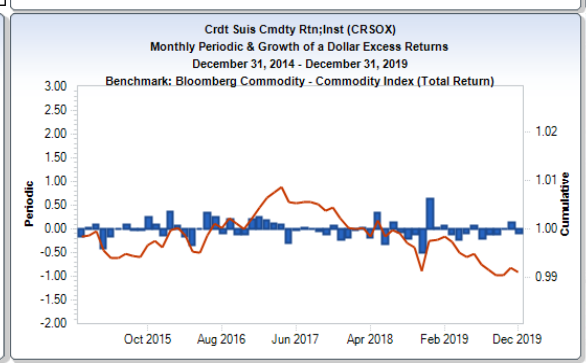
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Crdt Suis Cmdty Rtn;Inst (CRSOX)	6.98	-1.30	-4.10	-4.80	6.98	-11.65	1.73	12.42	-24.95	-16.87	-9.96	-1.83	-12.29	16.92
BC Commodity	7.69	-0.94	-3.92	-4.73	7.69	-11.25	1.70	11.77	-24.66	-17.01	-9.52	-1.06	-13.32	16.83
Risk - Standard Deviation														
Crdt Suis Cmdty Rtn;Inst (CRSOX)	9.86	8.45	11.24	13.38	9.86	9.00	5.57	12.17	15.04	13.24	8.95	14.43	19.31	18.83
BC Commodity	9.77	8.58	11.40	13.64	9.77	9.40	5.72	12.45	15.31	13.53	9.02	15.23	19.45	19.24
Risk - Semi-Variance														
Crdt Suis Cmdty Rtn;Inst (CRSOX)	6.55	5.91	8.12	9.78	6.55	6.60	3.83	8.09	10.65	9.07	6.36	11.02	15.78	13.54
BC Commodity	6.52	6.07	8.25	9.96	6.52	7.07	3.83	8.25	10.82	9.43	6.24	11.56	15.80	13.77
Excess Returns														
Arithmetic Excess	-0.71	-0.36	-0.18	-0.07	-0.71	-0.40	0.03	0.65	-0.29	0.14	-0.44	-0.77	1.03	0.09
Geometric Excess	-0.66	-0.36	-0.19	-0.07	-0.66	-0.45	0.03	0.58	-0.38	0.17	-0.49	-0.78	1.19	0.08

Excess Statistics	Annualized Ended 12/31/2019			
Manager vs. Benchmark	1 Year	3 Years	5 Years	10 Years
Tracking Error	0.40	0.70	0.69	0.88
Information Ratio	-1.64	-0.52	-0.26	-0.08
Downside Deviation	0.27	0.45	0.46	0.66
Skewness	0.19	0.81	0.47	-0.53
Kurtosis	-0.82	2.62	1.19	2.55
Alpha	-0.70	-0.41	-0.26	-0.19
Beta	1.01	0.98	0.98	0.98
Residual Risk	0.39	0.67	0.66	0.84
R Squared	1.00	0.99	1.00	1.00







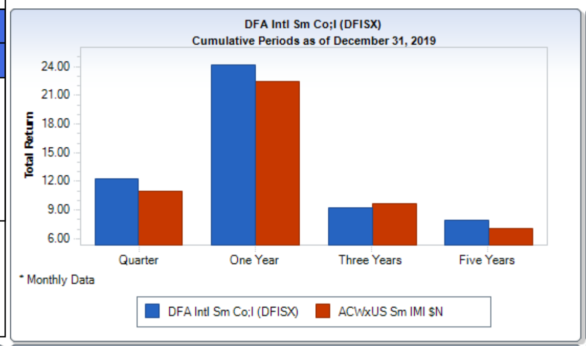


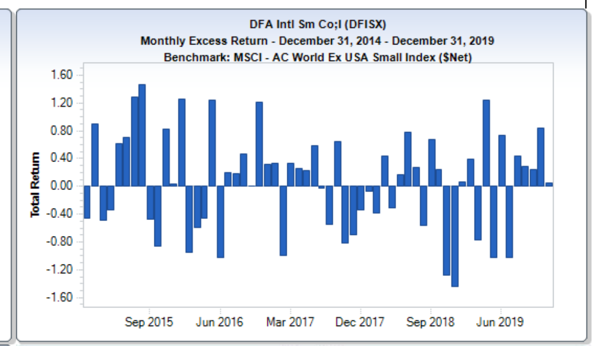
Performance Fact Sheet: DFA Intl Sm Co;I (DFISX)

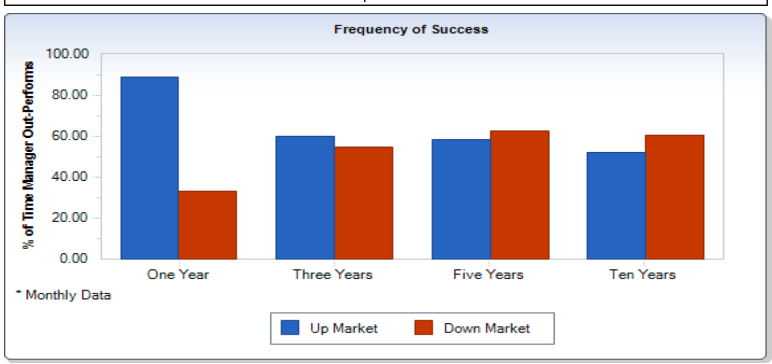
Fund Family:	DIMENSIONAL FUND ADVISORS LP	Net Assets ($MM):	$13,488.70
Asset Class:	Non U.S. Equity	Expense Ratio:	0.53
Style Category:	International Small/Mid-Cap Core	Front Load:	0.00
Objective Category:	INTERNATL SMALL-CAP	12B-1 Fee:	
Ticker:	DFISX	Turnover:	
Share Class:	I	Mgr Tenure:	

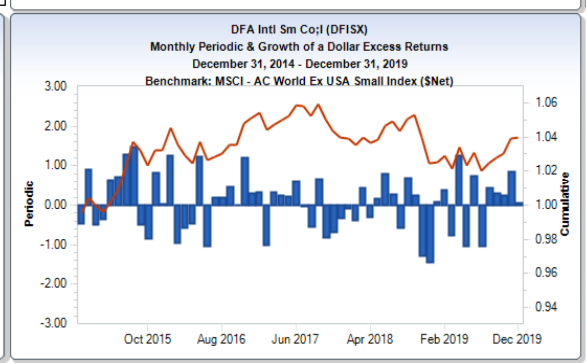
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
DFA Intl Sm Co;I (DFISX)	24.20	9.24	7.87	8.08	24.20	-19.41	30.25	5.79	5.91	-6.31	27.45	18.86	-15.37	23.92
ACWxUS Sm IMI $N	22.42	9.65	7.04	6.92	22.42	-18.20	31.64	3.91	2.60	-4.03	19.73	18.52	-18.50	25.21
Risk - Standard Deviation														
DFA Intl Sm Co;I (DFISX)	13.57	12.47	12.50	14.84	13.57	12.95	4.16	14.13	11.92	10.30	11.45	17.35	18.25	23.43
ACWxUS Sm IMI $N	12.27	11.77	12.46	14.88	12.27	12.68	3.49	15.01	12.78	9.48	11.95	17.39	19.51	22.86
Risk - Semi-Variance														
DFA Intl Sm Co;I (DFISX)	10.57	9.81	9.22	10.84	10.57	10.10	3.01	9.75	7.34	6.86	7.68	14.33	13.40	16.91
ACWxUS Sm IMI $N	9.21	9.32	9.19	10.90	9.21	9.78	2.59	10.37	7.97	6.53	8.54	13.93	14.39	16.63
Excess Returns														
Arithmetic Excess	1.78	-0.41	0.83	1.16	1.78	-1.21	-1.39	1.88	3.31	-2.28	7.72	0.34	3.13	-1.29
Geometric Excess	1.45	-0.37	0.78	1.08	1.45	-1.48	-1.06	1.81	3.23	-2.38	6.45	0.29	3.84	-1.03

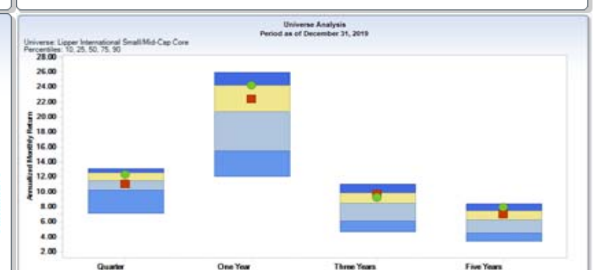
Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	2.52	2.29	2.48	2.75
Information Ratio	0.58	-0.16	0.31	0.39
Downside Deviation	1.94	1.75	1.79	1.83
Skewness	-0.48	-0.44	-0.09	0.53
Kurtosis	-0.57	-0.59	-0.72	0.55
Alpha	-0.04	-0.67	0.87	1.19
Beta	1.09	1.04	0.98	0.98
Residual Risk	2.25	2.23	2.45	2.72
R Squared	0.97	0.97	0.96	0.97











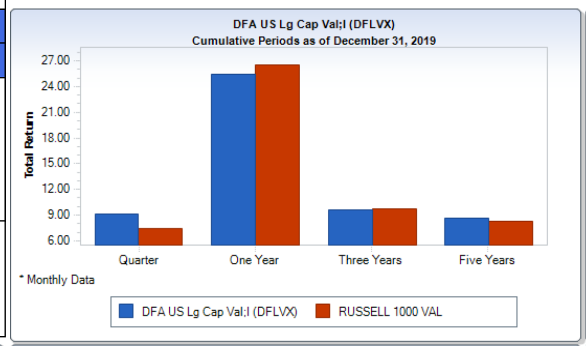
	Quarter	One Year	Three Years	Five Years
DFA Intl Sm Co;I (DFISX)	12.26 (36%)	24.20 (26%)	9.24 (36%)	7.87 (17%)
ACWxUS Sm IMI $N	11.01 (57%)	22.42 (37%)	9.65 (28%)	7.04 (29%)
# of Products	60	60	52	45

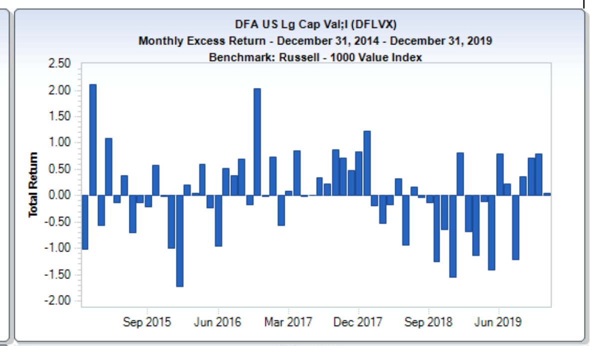
Performance Fact Sheet: DFA US Lg Cap Val;I (DFLVX)

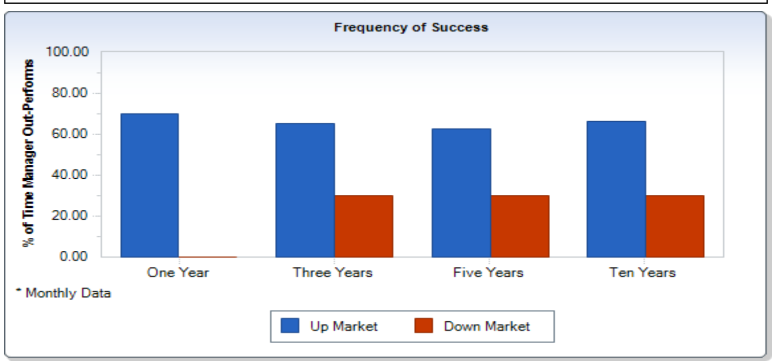
Fund Family:	DIMENSIONAL FUND ADVISORS LP		Net Assets ($MM):	$26,980.50
Asset Class:	U.S. Equity		Expense Ratio:	0.27
Style Category:	Multi-Cap Value Funds		Front Load:	
Objective Category:	GROWTH & INCOME		12B-1 Fee:	
Ticker:	DFLVX		Turnover:	13.00
Share Class:	I		Mgr Tenure:	8

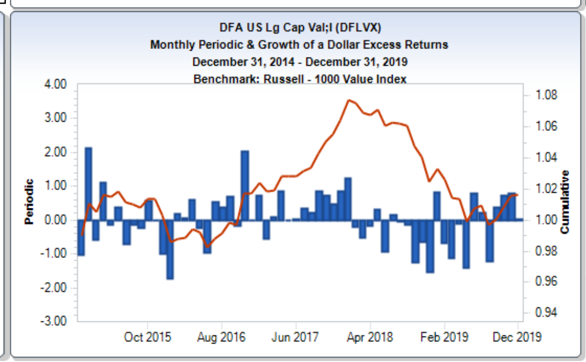
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
DFA US Lg Cap Val;I (DFLVX)	25.47	9.66	8.64	12.75	25.47	-11.65	18.95	18.91	-3.49	10.08	40.31	22.04	-3.13	20.18
RUSSELL 1000 VAL	26.54	9.68	8.29	11.80	26.54	-8.27	13.66	17.34	-3.83	13.45	32.54	17.50	0.39	15.51
Risk - Standard Deviation														
DFA US Lg Cap Val;I (DFLVX)	15.86	13.73	13.85	15.04	15.86	15.95	5.51	13.40	15.12	7.82	10.17	12.70	21.85	23.16
RUSSELL 1000 VAL	13.51	12.02	11.98	12.71	13.51	14.10	5.43	11.12	12.93	8.29	9.52	10.23	17.28	19.27
Risk - Semi-Variance														
DFA US Lg Cap Val;I (DFLVX)	12.35	10.91	10.38	11.17	12.35	12.75	4.00	9.67	9.32	6.29	7.92	10.33	14.62	17.40
RUSSELL 1000 VAL	10.48	9.45	8.95	9.48	10.48	11.41	3.73	7.87	8.21	6.55	7.46	8.37	11.39	14.51
Excess Returns														
Arithmetic Excess	-1.07	-0.02	0.35	0.95	-1.07	-3.38	5.29	1.57	0.34	-3.37	7.77	4.54	-3.52	4.67
Geometric Excess	-0.85	-0.02	0.32	0.85	-0.85	-3.68	4.65	1.34	0.35	-2.97	5.86	3.86	-3.51	4.04

Excess Statistics	Annualized Ended 12/31/2019			
Manager vs. Benchmark	1 Year	3 Years	5 Years	10 Years
Tracking Error	2.90	2.55	2.76	3.28
Information Ratio	-0.29	-0.01	0.12	0.26
Downside Deviation	2.24	1.95	1.97	2.41
Skewness	-0.52	-0.52	0.04	-0.30
Kurtosis	-1.34	-0.60	0.30	0.24
Alpha	-3.90	-0.98	-0.62	-0.81
Beta	1.17	1.13	1.14	1.17
Residual Risk	1.85	1.96	2.17	2.51
R Squared	0.99	0.98	0.98	0.97









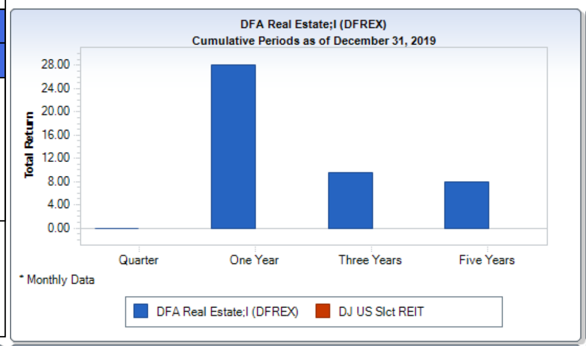
	Quarter	One Year	Three Years	Five Years
DFA US Lg Cap Val;I (DFLVX)	9.07 (17%)	25.47 (58%)	9.66 (64%)	8.64 (42%)
RUSSELL 1000 VAL	7.41 (47%)	26.54 (44%)	9.68 (63%)	8.29 (49%)
# of Products	1027	1027	1019	885

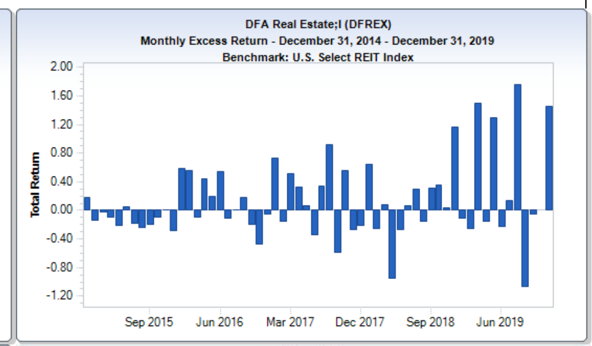
Performance Fact Sheet: DFA Real Estate;I (DFREX)

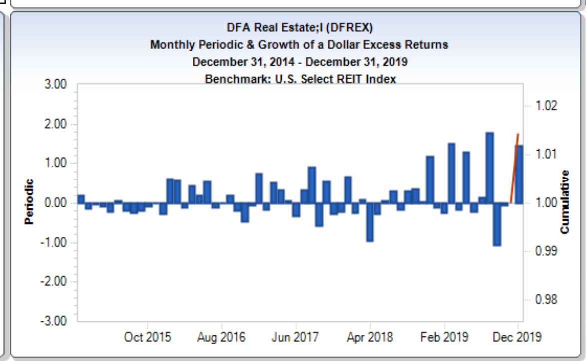
Fund Family:	DIMENSIONAL FUND ADVISORS LP	Net Assets ($MM):	$10,489.90
Asset Class:	Real Estate	Expense Ratio:	0.18
Style Category:	Real Estate Funds	Front Load:	
Objective Category:	REAL ESTATE	12B-1 Fee:	
Ticker:	DFREX	Turnover:	3.00
Share Class:	I	Mgr Tenure:	8

	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
DFA Real Estate;I (DFREX)	28.10	9.52	8.01	12.40	28.10	-3.00	5.71	8.38	3.23	31.11	1.39	17.47	8.97	28.67
DJ US Slct REIT	N/A	N/A	N/A	N/A	N/A	-4.24	3.76	6.68	4.48	32.00	1.22	17.12	9.37	28.07
Risk - Standard Deviation														
DFA Real Estate;I (DFREX)	11.54	11.69	13.51	15.17	11.54	15.29	5.56	16.95	15.95	13.09	15.19	11.74	22.57	20.07
DJ US Slct REIT	N/A	N/A	N/A	N/A	N/A	16.12	6.46	17.00	15.88	13.16	15.14	11.93	23.02	20.46
Risk - Semi-Variance														
DFA Real Estate;I (DFREX)	5.61	8.28	9.36	10.71	5.61	11.76	3.54	10.65	11.48	9.34	11.70	8.27	15.72	14.78
DJ US Slct REIT	N/A	N/A	N/A	N/A	N/A	12.48	4.13	10.61	11.47	9.21	11.63	8.37	16.08	15.13
Excess Returns														
Arithmetic Excess	N/A	N/A	N/A	N/A	N/A	1.24	1.95	1.70	-1.25	-0.89	0.17	0.35	-0.40	0.60
Geometric Excess	N/A	N/A	N/A	N/A	N/A	1.29	1.88	1.59	-1.20	-0.67	0.17	0.30	-0.37	0.47

Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	N/A	N/A	N/A	N/A
Information Ratio	N/A	N/A	N/A	N/A
Downside Deviation	N/A	N/A	N/A	N/A
Skewness	N/A	N/A	N/A	N/A
Kurtosis	N/A	N/A	N/A	N/A
Alpha	N/A	N/A	N/A	N/A
Beta	N/A	N/A	N/A	N/A
Residual Risk	N/A	N/A	N/A	N/A
R Squared	N/A	N/A	N/A	N/A





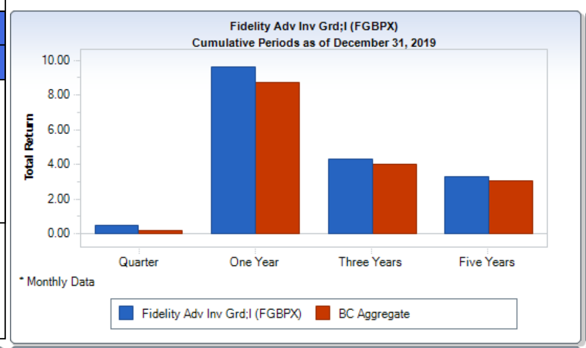


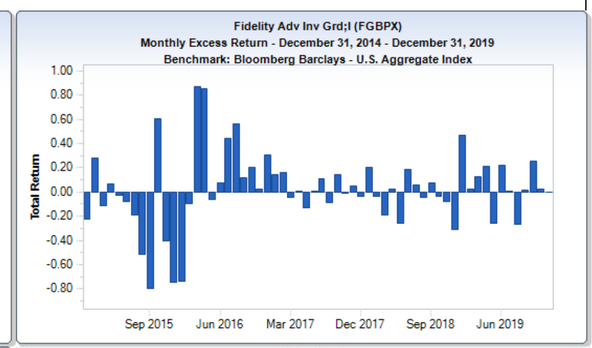
Performance Fact Sheet: Fidelity Adv Inv Grd;I (FGBPX)

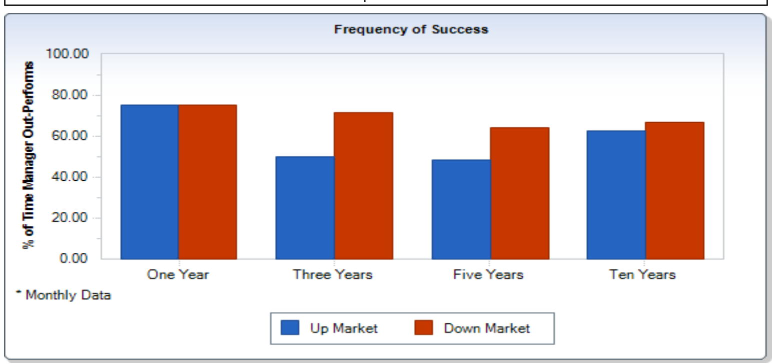
Fund Family:	FIDELITY MANAGEMENT & RESEARCH	Net Assets ($MM):	$567.30
Asset Class:	Taxable Fixed Income	Expense Ratio:	0.50
Style Category:	Core Bond Funds	Front Load:	
Objective Category:	CORE BOND	12B-1 Fee:	
Ticker:	FGBPX	Turnover:	59.00
Share Class:	I	Mgr Tenure:	16

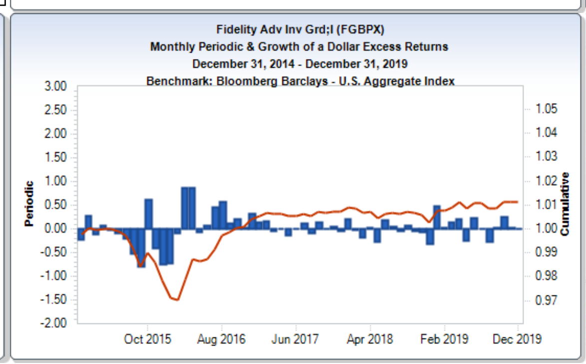
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Fidelity Adv Inv Grd;I (FGBPX)	9.63	4.28	3.28	4.26	9.63	-0.40	3.87	5.30	-1.61	5.76	-1.79	6.18	8.01	8.38
BC Aggregate	8.72	4.03	3.05	3.75	8.72	0.01	3.54	2.65	0.55	5.97	-2.02	4.22	7.84	6.54
Risk - Standard Deviation														
Fidelity Adv Inv Grd;I (FGBPX)	3.29	2.78	3.10	2.97	3.29	2.71	1.43	3.92	2.96	2.58	3.63	2.25	2.12	2.77
BC Aggregate	3.43	2.91	3.06	2.87	3.43	3.12	1.52	3.71	2.95	2.31	3.19	2.01	2.35	2.91
Risk - Semi-Variance														
Fidelity Adv Inv Grd;I (FGBPX)	2.17	1.80	2.15	2.16	2.17	1.85	1.04	3.15	1.76	1.97	2.76	1.41	1.50	2.04
BC Aggregate	2.12	1.87	2.08	2.03	2.12	2.06	1.10	2.94	1.75	1.71	2.37	1.26	1.62	2.21
Excess Returns														
Arithmetic Excess	0.91	0.25	0.23	0.51	0.91	-0.41	0.33	2.65	-2.16	-0.21	0.23	1.96	0.17	1.84
Geometric Excess	0.84	0.24	0.22	0.49	0.84	-0.41	0.32	2.58	-2.15	-0.20	0.23	1.88	0.16	1.73

Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	0.73	0.56	1.09	0.93
Information Ratio	1.16	0.44	0.21	0.53
Downside Deviation	0.51	0.40	0.77	0.68
Skewness	0.05	0.14	0.01	-0.28
Kurtosis	0.33	0.80	1.83	2.16
Alpha	1.22	0.40	0.33	0.55
Beta	0.94	0.93	0.94	0.98
Residual Risk	0.70	0.54	1.08	0.93
R Squared	0.95	0.96	0.87	0.90







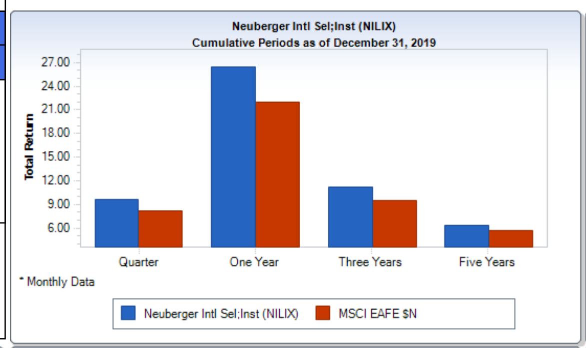


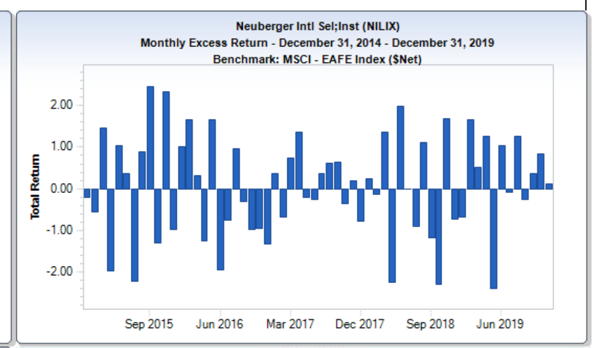
Performance Fact Sheet: Neuberger Intl Sel;Inst (NILIX)

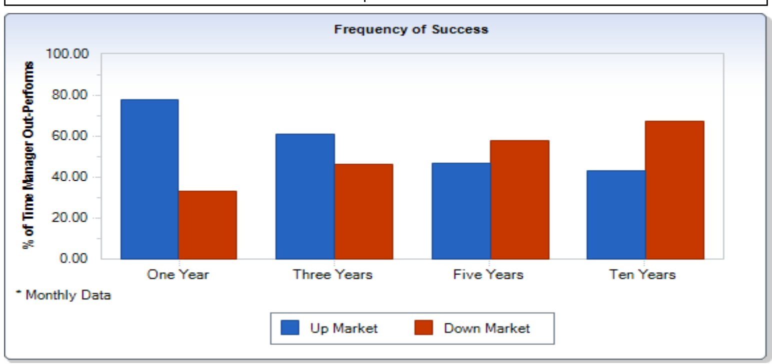
Fund Family:	NEUBERGER BERMAN MANAGEMENT LLC	Net Assets ($MM):	$139.60
Asset Class:	Non U.S. Equity	Expense Ratio:	0.81
Style Category:	International Multi-Cap Growth	Front Load:	
Objective Category:	INTERNATIONAL	12B-1 Fee:	
Ticker:	NILIX	Turnover:	32.00
Share Class:	I	Mgr Tenure:	14

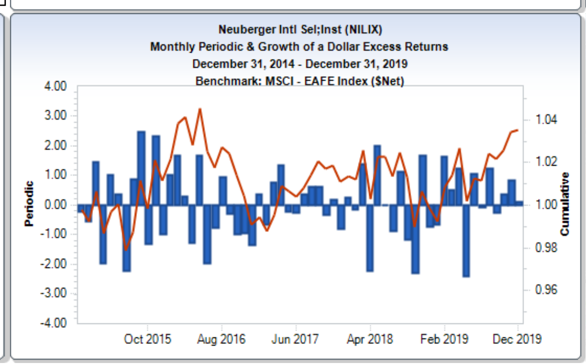
Historical Returns	Annualized Ended 12/31/2019				Annual Returns									
	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Neuberger Intl Sel;Inst (NILIX)	26.47	11.19	6.41	6.32	26.47	-14.79	27.54	-1.04	0.32	-2.90	17.26	16.32	-11.34	15.14
MSCI EAFE $N	22.01	9.56	5.67	5.50	22.01	-13.79	25.03	1.00	-0.81	-4.90	22.78	17.31	-12.14	7.75
Risk - Standard Deviation														
Neuberger Intl Sel;Inst (NILIX)	13.28	12.34	12.37	13.96	13.28	13.62	5.20	13.16	12.22	9.97	9.56	14.19	20.01	20.94
MSCI EAFE $N	11.53	10.96	12.23	14.59	11.53	12.43	4.16	13.42	15.23	9.69	12.15	16.68	19.52	22.99
Risk - Semi-Variance														
Neuberger Intl Sel;Inst (NILIX)	10.82	9.90	9.48	10.40	10.82	10.83	3.78	9.57	8.38	6.82	6.21	12.25	14.32	14.54
MSCI EAFE $N	8.84	8.59	9.07	10.67	8.84	8.92	3.15	9.42	10.21	6.48	8.43	14.13	13.27	16.16
Excess Returns														
Arithmetic Excess	4.46	1.63	0.74	0.82	4.46	-1.00	2.51	-2.04	1.13	2.00	-5.52	-0.99	0.80	7.39
Geometric Excess	3.66	1.49	0.70	0.78	3.66	-1.16	2.01	-2.02	1.14	2.10	-4.50	-0.84	0.91	6.86

Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	3.80	3.77	4.19	4.52
Information Ratio	0.96	0.39	0.17	0.17
Downside Deviation	3.09	2.87	3.05	3.26
Skewness	-1.34	-0.62	-0.20	-0.11
Kurtosis	2.47	0.24	-0.59	0.22
Alpha	1.83	0.93	0.91	1.19
Beta	1.11	1.08	0.95	0.91
Residual Risk	3.54	3.63	4.12	4.28
R Squared	0.93	0.91	0.89	0.91







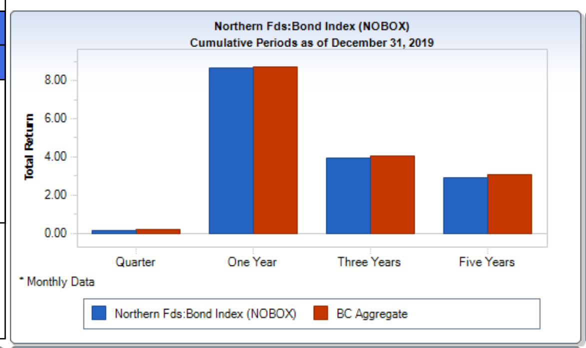


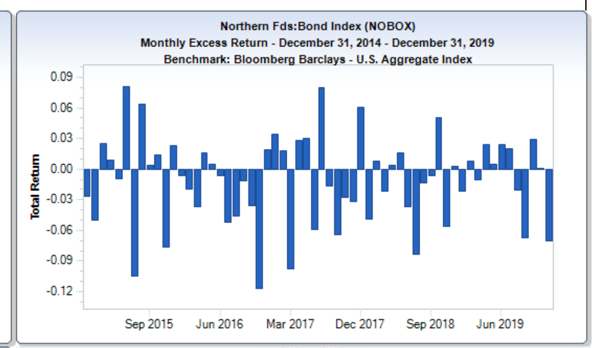
Performance Fact Sheet: Northern Fds:Bond Index (NOBOX)

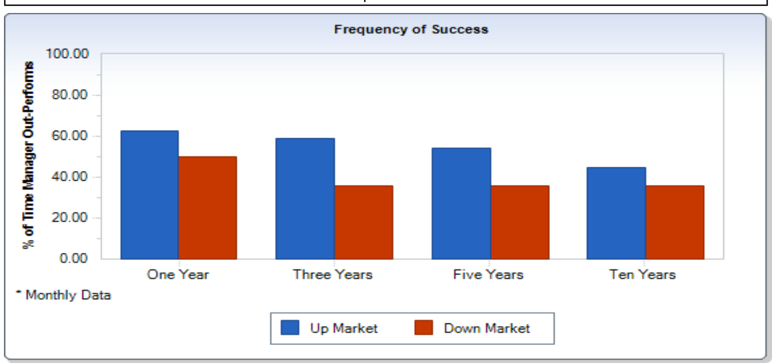
Fund Family:	Northern Trust Investments Inc	Net Assets ($MM):	$2,858.70
Asset Class:	Taxable Fixed Income	Expense Ratio:	0.15
Style Category:	Core Bond Funds	Front Load:	
Objective Category:	CORE BOND	12B-1 Fee:	
Ticker:	NOBOX	Turnover:	71.00
Share Class:	Standard	Mgr Tenure:	7

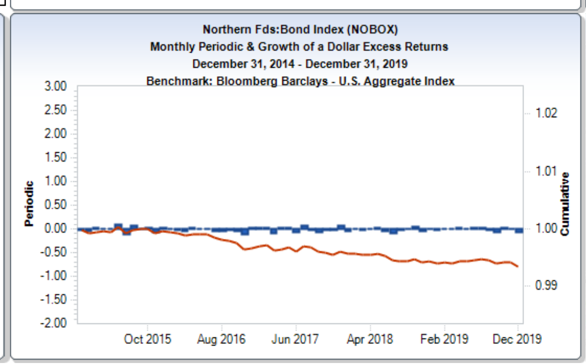
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Northern Fds:Bond Index (NOBOX)	8.63	3.92	2.91	3.58	8.63	-0.17	3.49	2.35	0.50	5.94	-2.28	4.04	7.64	6.20
BC Aggregate	8.72	4.03	3.05	3.75	8.72	0.01	3.54	2.65	0.55	5.97	-2.02	4.22	7.84	6.54
Risk - Standard Deviation														
Northern Fds:Bond Index (NOBOX)	3.44	2.94	3.09	2.91	3.44	3.11	1.65	3.79	2.90	2.37	3.13	2.09	2.49	2.97
BC Aggregate	3.43	2.91	3.06	2.87	3.43	3.12	1.52	3.71	2.95	2.31	3.19	2.01	2.35	2.91
Risk - Semi-Variance														
Northern Fds:Bond Index (NOBOX)	2.16	1.90	2.11	2.06	2.16	2.03	1.21	3.03	1.72	1.75	2.33	1.32	1.71	2.24
BC Aggregate	2.12	1.87	2.08	2.03	2.12	2.06	1.10	2.94	1.75	1.71	2.37	1.26	1.62	2.21
Excess Returns														
Arithmetic Excess	-0.09	-0.11	-0.14	-0.17	-0.09	-0.18	-0.05	-0.30	-0.05	-0.03	-0.26	-0.18	-0.20	-0.34
Geometric Excess	-0.08	-0.11	-0.14	-0.16	-0.08	-0.18	-0.05	-0.29	-0.05	-0.03	-0.27	-0.17	-0.19	-0.32

Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	0.12	0.14	0.15	0.18
Information Ratio	-0.68	-0.73	-0.87	-0.90
Downside Deviation	0.09	0.11	0.11	0.12
Skewness	-1.05	-0.20	-0.27	0.50
Kurtosis	0.18	-0.35	0.01	1.29
Alpha	-0.11	-0.13	-0.14	-0.19
Beta	1.00	1.01	1.01	1.01
Residual Risk	0.12	0.14	0.15	0.18
R Squared	1.00	1.00	1.00	1.00







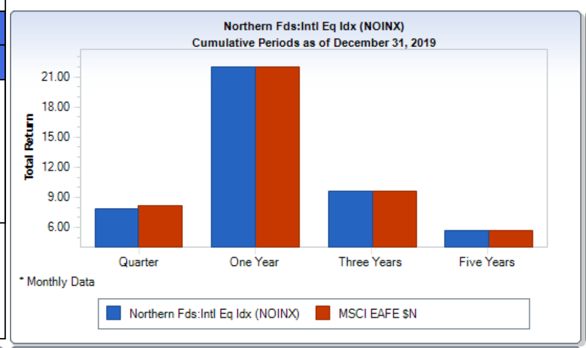


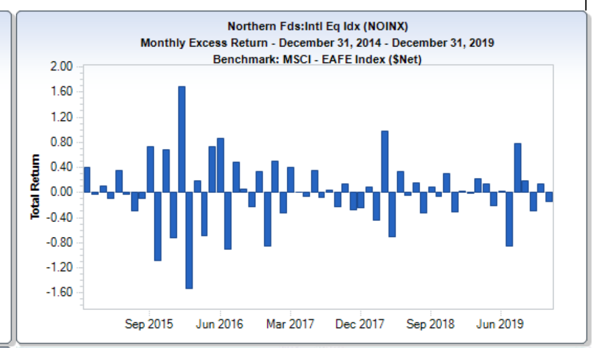
Performance Fact Sheet: Northern Fds:Intl Eq Idx (NOINX)

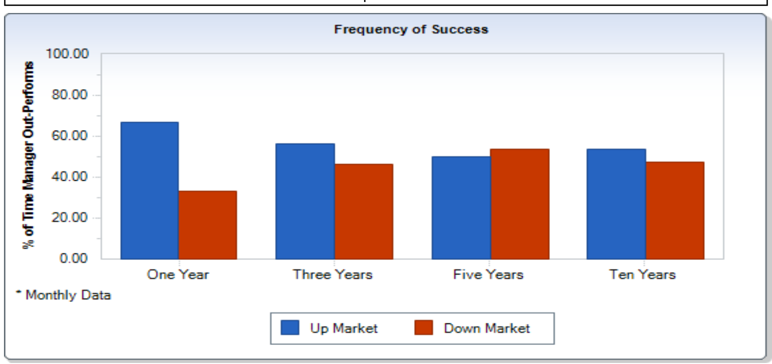
Fund Family:	Northern Trust Investments Inc	Net Assets ($MM):	$5,598.50
Asset Class:	Non U.S. Equity	Expense Ratio:	0.25
Style Category:	International Multi-Cap Core	Front Load:	
Objective Category:	INTERNATIONAL	12B-1 Fee:	
Ticker:	NOINX	Turnover:	27.00
Share Class:	Standard	Mgr Tenure:	1

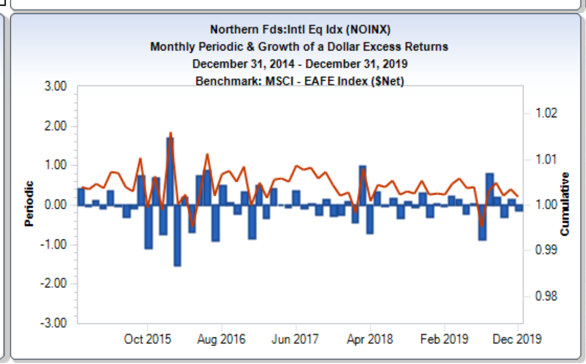
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Northern Fds:Intl Eq Idx (NOINX)	21.97	9.64	5.71	5.38	21.97	-13.76	25.29	1.10	-0.91	-5.78	21.73	18.69	-12.62	7.60
MSCI EAFE $N	22.01	9.56	5.67	5.50	22.01	-13.79	25.03	1.00	-0.81	-4.90	22.78	17.31	-12.14	7.75
Risk - Standard Deviation														
Northern Fds:Intl Eq Idx (NOINX)	11.61	11.08	11.82	14.66	11.61	12.63	4.31	12.02	14.36	10.42	12.18	16.58	19.92	23.91
MSCI EAFE $N	11.53	10.96	12.23	14.59	11.53	12.43	4.16	13.42	15.23	9.69	12.15	16.68	19.52	22.99
Risk - Semi-Variance														
Northern Fds:Intl Eq Idx (NOINX)	8.95	8.72	8.84	10.69	8.95	9.27	3.12	8.23	9.90	7.09	8.49	13.95	13.58	16.55
MSCI EAFE $N	8.84	8.59	9.07	10.67	8.84	8.92	3.15	9.42	10.21	6.48	8.43	14.13	13.27	16.16
Excess Returns														
Arithmetic Excess	-0.04	0.08	0.04	-0.12	-0.04	0.03	0.26	0.10	-0.10	-0.88	-1.05	1.38	-0.48	-0.15
Geometric Excess	-0.03	0.07	0.04	-0.11	-0.03	0.03	0.21	0.10	-0.10	-0.93	-0.86	1.18	-0.55	-0.14

Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	1.33	1.25	1.84	2.00
Information Ratio	-0.03	0.05	0.02	-0.06
Downside Deviation	0.98	0.86	1.31	1.37
Skewness	-0.32	0.23	0.01	0.44
Kurtosis	2.75	1.26	1.72	2.46
Alpha	-0.03	0.04	0.23	-0.09
Beta	1.00	1.00	0.96	1.00
Residual Risk	1.31	1.24	1.74	1.98
R Squared	0.99	0.99	0.98	0.98







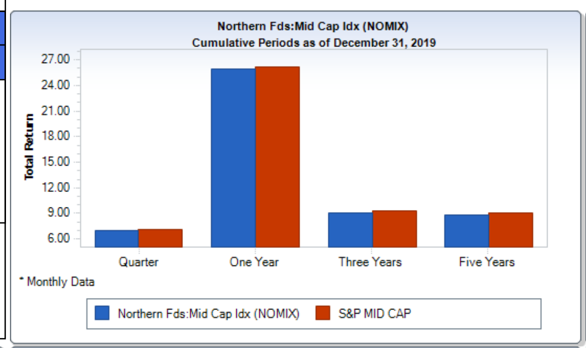


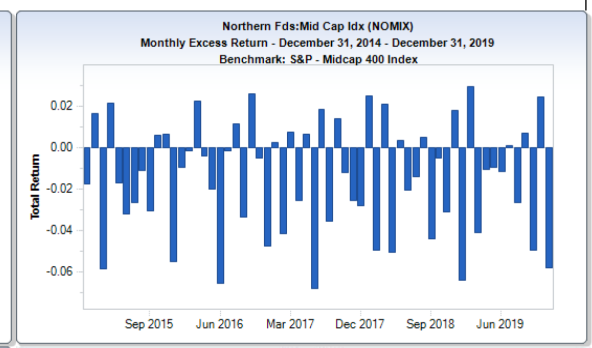
Performance Fact Sheet: Northern Fds:Mid Cap Idx (NOMIX)

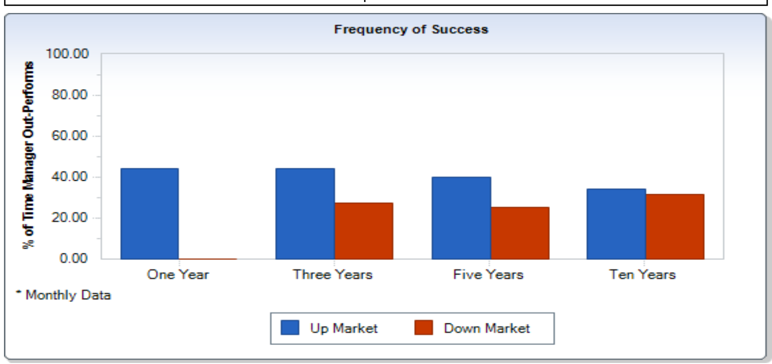
Fund Family:	Northern Trust Investments Inc	Net Assets ($MM):	$2,511.00
Asset Class:	U.S. Equity	Expense Ratio:	0.15
Style Category:	S&P Midcap 400 Index Fds	Front Load:	
Objective Category:	MID-CAP	12B-1 Fee:	
Ticker:	NOMIX	Turnover:	21.00
Share Class:	Standard	Mgr Tenure:	14

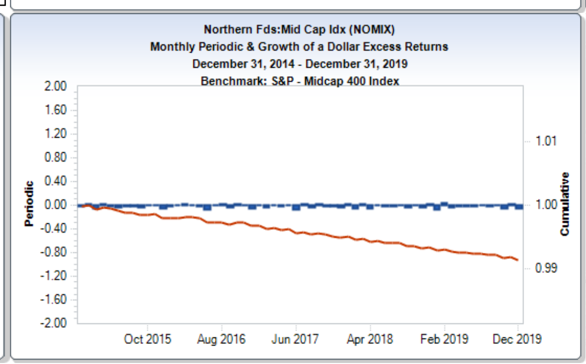
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Northern Fds:Mid Cap Idx (NOMIX)	25.94	9.07	8.84	12.50	25.94	-11.21	16.03	20.58	-2.37	9.61	33.23	17.75	-2.04	26.27
S&P MID CAP	26.20	9.26	9.03	12.72	26.20	-11.08	16.24	20.74	-2.18	9.77	33.50	17.89	-1.74	26.64
Risk - Standard Deviation														
Northern Fds:Mid Cap Idx (NOMIX)	16.86	14.66	13.92	14.83	16.86	17.50	5.82	13.88	11.88	11.66	11.17	11.18	21.11	21.12
S&P MID CAP	16.87	14.67	13.91	14.84	16.87	17.50	5.82	13.86	11.85	11.65	11.23	11.19	21.14	21.13
Risk - Semi-Variance														
Northern Fds:Mid Cap Idx (NOMIX)	12.73	11.73	10.59	11.02	12.73	14.68	4.07	9.40	8.09	8.72	8.35	8.88	14.12	16.25
S&P MID CAP	12.73	11.74	10.59	11.03	12.73	14.70	4.08	9.40	8.08	8.72	8.40	8.89	14.12	16.27
Excess Returns														
Arithmetic Excess	-0.26	-0.19	-0.19	-0.22	-0.26	-0.13	-0.21	-0.16	-0.19	-0.16	-0.27	-0.14	-0.30	-0.37
Geometric Excess	-0.21	-0.17	-0.17	-0.20	-0.21	-0.15	-0.18	-0.13	-0.19	-0.15	-0.20	-0.12	-0.31	-0.29

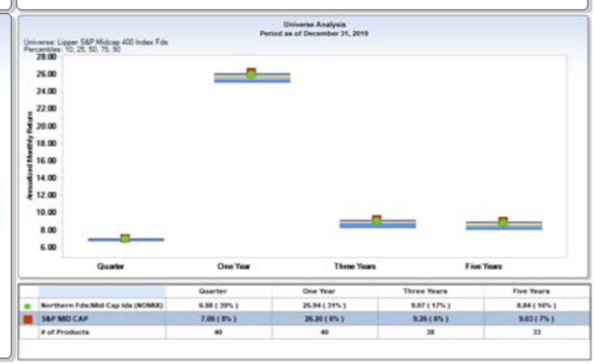
Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	0.11	0.10	0.09	0.12
Information Ratio	-1.95	-1.88	-1.87	-1.61
Downside Deviation	0.08	0.07	0.07	0.09
Skewness	-0.07	-0.21	-0.27	-0.14
Kurtosis	-1.07	-1.02	-0.92	0.20
Alpha	-0.19	-0.18	-0.18	-0.19
Beta	1.00	1.00	1.00	1.00
Residual Risk	0.11	0.10	0.09	0.12
R Squared	1.00	1.00	1.00	1.00









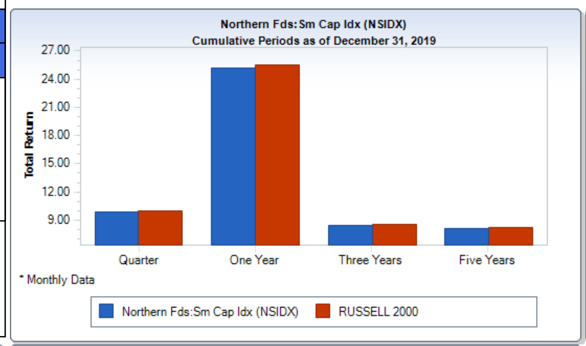


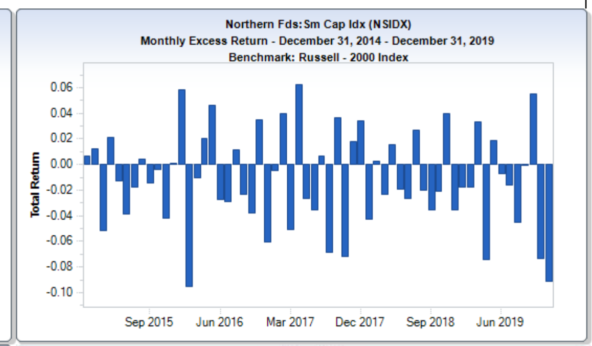
Performance Fact Sheet: Northern Fds:Sm Cap Idx (NSIDX)

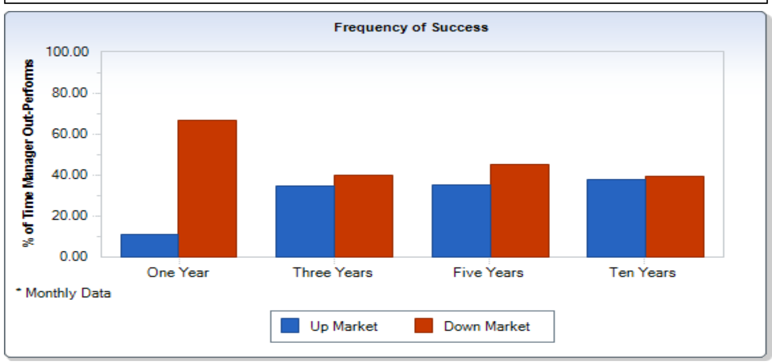
Fund Family:	Northern Trust Investments Inc	Net Assets ($MM):	$1,292.20
Asset Class:	U.S. Equity	Expense Ratio:	0.15
Style Category:	Small-Cap Core Funds	Front Load:	
Objective Category:	SMALL-CAP	12B-1 Fee:	
Ticker:	NSIDX	Turnover:	21.00
Share Class:	Standard	Mgr Tenure:	14

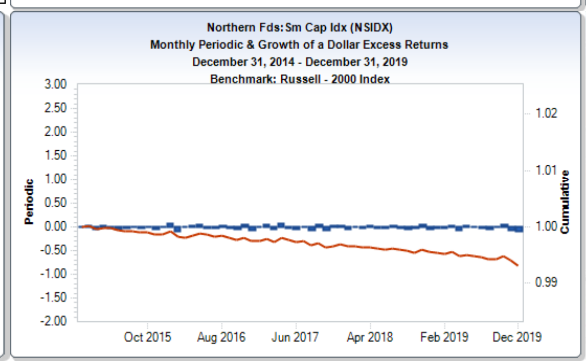
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Northern Fds:Sm Cap Idx (NSIDX)	25.23	8.44	8.08	11.63	25.23	-11.14	14.58	21.17	-4.54	4.69	38.66	16.21	-4.50	26.44
RUSSELL 2000	25.52	8.59	8.23	11.83	25.52	-11.01	14.65	21.31	-4.41	4.89	38.82	16.35	-4.18	26.85
Risk - Standard Deviation														
Northern Fds:Sm Cap Idx (NSIDX)	17.80	15.94	16.04	16.99	17.80	19.35	7.82	18.29	14.46	15.59	10.93	12.95	23.16	24.28
RUSSELL 2000	17.84	15.93	16.04	17.00	17.84	19.33	7.76	18.29	14.48	15.52	10.90	12.94	23.27	24.26
Risk - Semi-Variance														
Northern Fds:Sm Cap Idx (NSIDX)	13.34	12.53	12.12	12.59	13.34	16.03	4.80	13.20	10.09	11.35	8.16	10.04	15.25	18.82
RUSSELL 2000	13.37	12.52	12.13	12.58	13.37	16.01	4.75	13.22	10.12	11.29	8.15	10.01	15.32	18.78
Excess Returns														
Arithmetic Excess	-0.29	-0.15	-0.15	-0.20	-0.29	-0.13	-0.07	-0.14	-0.13	-0.20	-0.16	-0.14	-0.32	-0.41
Geometric Excess	-0.23	-0.14	-0.14	-0.18	-0.23	-0.15	-0.06	-0.12	-0.14	-0.19	-0.12	-0.12	-0.33	-0.32

Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	0.15	0.14	0.13	0.15
Information Ratio	-1.52	-1.07	-1.05	-1.16
Downside Deviation	0.11	0.10	0.09	0.11
Skewness	-0.08	-0.04	-0.11	-0.36
Kurtosis	-0.70	-0.64	-0.39	-0.42
Alpha	-0.20	-0.15	-0.14	-0.17
Beta	1.00	1.00	1.00	1.00
Residual Risk	0.15	0.14	0.13	0.16
R Squared	1.00	1.00	1.00	1.00







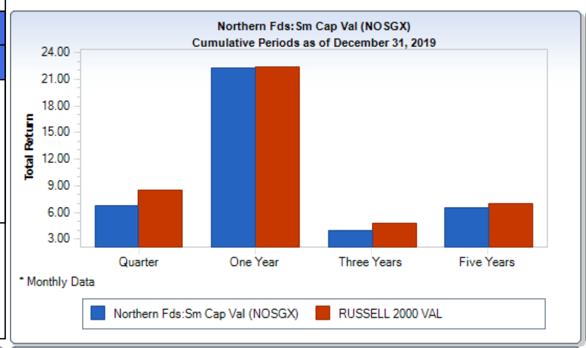


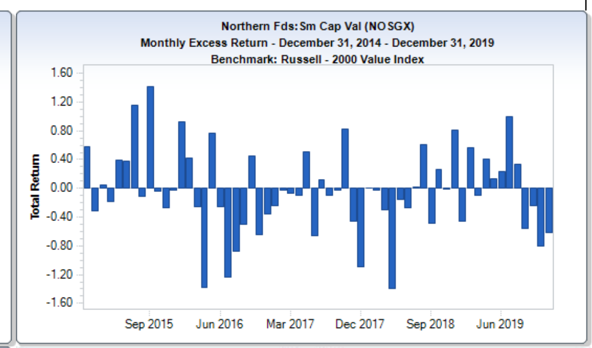
Performance Fact Sheet: Northern Fds:Sm Cap Val (NOSGX)

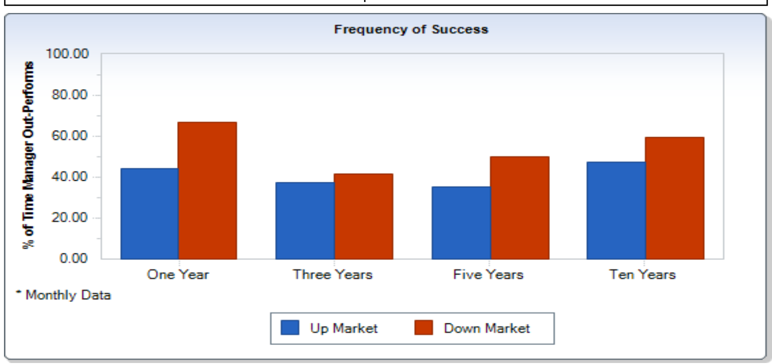
Fund Family:	Northern Trust Investments Inc	Net Assets ($MM):	$3,119.60
Asset Class:	U.S. Equity	Expense Ratio:	1.00
Style Category:	Small-Cap Value Funds	Front Load:	
Objective Category:	SMALL-CAP	12B-1 Fee:	
Ticker:	NOSGX	Turnover:	16.00
Share Class:	Standard	Mgr Tenure:	19

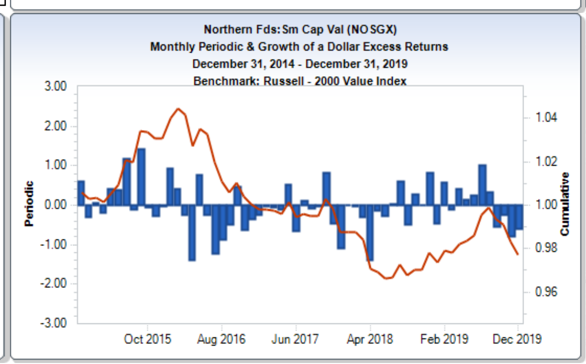
Historical Returns	Annualized Ended 12/31/2019				Annual Returns									
	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Northern Fds:Sm Cap Val (NOSGX)	22.27	3.95	6.50	10.92	22.27	-13.69	6.43	27.88	-4.62	7.08	36.44	13.77	-0.63	24.61
RUSSELL 2000 VAL	22.39	4.77	6.99	10.56	22.39	-12.86	7.84	31.74	-7.47	4.22	34.50	18.05	-5.50	24.51
Risk - Standard Deviation														
Northern Fds:Sm Cap Val (NOSGX)	17.78	15.46	15.14	16.15	17.78	17.29	9.50	16.50	12.27	15.73	11.23	11.66	21.67	23.30
RUSSELL 2000 VAL	18.26	15.90	15.88	16.78	18.26	17.99	9.68	17.81	12.96	15.47	10.90	12.19	22.33	24.66
Risk - Semi-Variance														
Northern Fds:Sm Cap Val (NOSGX)	13.64	11.81	10.96	11.73	13.64	14.10	5.80	10.52	8.47	11.52	8.88	9.17	13.87	18.27
RUSSELL 2000 VAL	14.00	12.24	11.55	12.32	14.00	14.91	5.84	11.80	8.68	11.54	8.53	9.36	14.86	19.39
Excess Returns														
Arithmetic Excess	-0.12	-0.82	-0.49	0.36	-0.12	-0.83	-1.41	-3.86	2.85	2.86	1.94	-4.28	4.87	0.10
Geometric Excess	-0.10	-0.78	-0.46	0.33	-0.10	-0.95	-1.31	-2.93	3.08	2.74	1.44	-3.63	5.15	0.08

Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	1.89	1.80	2.05	1.87
Information Ratio	-0.05	-0.44	-0.22	0.17
Downside Deviation	1.30	1.30	1.44	1.31
Skewness	0.23	-0.22	-0.01	0.06
Kurtosis	-0.74	0.42	0.24	0.61
Alpha	0.43	-0.69	-0.16	0.71
Beta	0.97	0.97	0.95	0.96
Residual Risk	1.84	1.73	1.87	1.72
R Squared	0.99	0.99	0.98	0.99







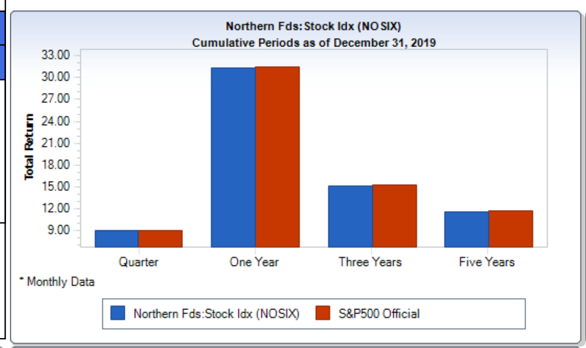


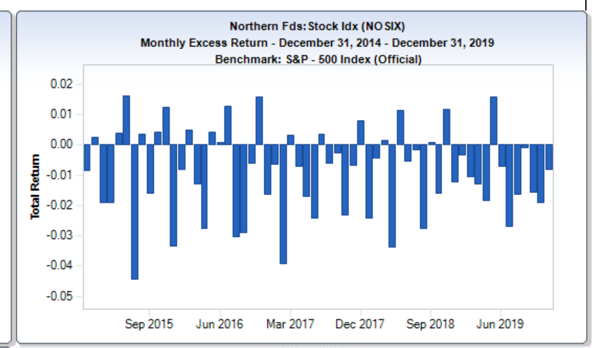
Performance Fact Sheet: Northern Fds:Stock Idx (NOSIX)

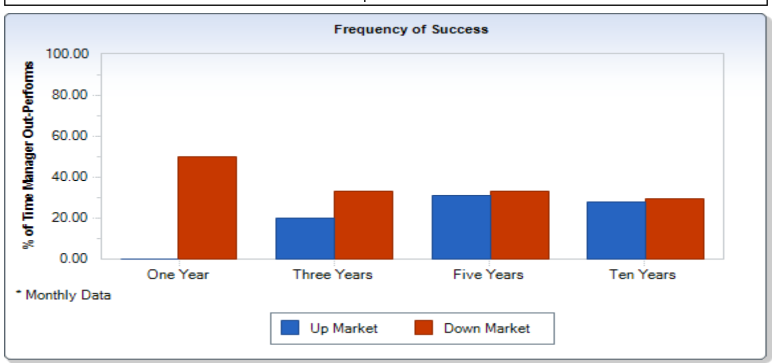
Fund Family:	Northern Trust Investments Inc	Net Assets ($MM):	$9,934.20
Asset Class:	U.S. Equity	Expense Ratio:	0.10
Style Category:	S&P 500 Index Funds	Front Load:	
Objective Category:	S&P 500 INDEX FUNDS	12B-1 Fee:	
Ticker:	NOSIX	Turnover:	7.00
Share Class:	Standard	Mgr Tenure:	14

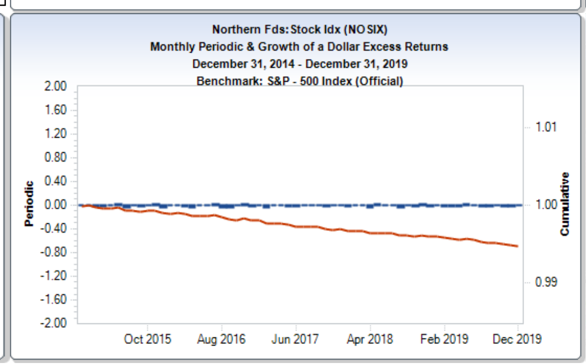
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Northern Fds:Stock Idx (NOSIX)	31.32	15.14	11.58	13.41	31.32	-4.48	21.69	11.86	1.29	13.53	32.23	15.86	1.90	14.81
S&P500 Official	31.49	15.27	11.70	13.56	31.49	-4.38	21.83	11.96	1.38	13.69	32.39	16.00	2.11	15.06
Risk - Standard Deviation														
Northern Fds:Stock Idx (NOSIX)	12.88	12.09	11.98	12.46	12.88	15.33	3.91	10.30	13.67	8.25	8.47	10.55	15.94	19.26
S&P500 Official	12.89	12.10	11.98	12.46	12.89	15.33	3.94	10.29	13.66	8.26	8.48	10.52	15.94	19.26
Risk - Semi-Variance														
Northern Fds:Stock Idx (NOSIX)	10.06	9.79	9.07	9.33	10.06	12.19	2.57	7.17	8.52	6.19	6.85	8.60	10.29	14.38
S&P500 Official	10.08	9.80	9.07	9.33	10.08	12.19	2.58	7.17	8.52	6.20	6.87	8.57	10.29	14.37
Excess Returns														
Arithmetic Excess	-0.17	-0.13	-0.12	-0.15	-0.17	-0.10	-0.14	-0.10	-0.09	-0.16	-0.16	-0.14	-0.21	-0.25
Geometric Excess	-0.13	-0.11	-0.11	-0.13	-0.13	-0.10	-0.11	-0.09	-0.09	-0.14	-0.12	-0.12	-0.21	-0.22

Excess Statistics	Annualized Ended 12/31/2019			
Manager vs. Benchmark	1 Year	3 Years	5 Years	10 Years
Tracking Error	0.04	0.04	0.05	0.07
Information Ratio	-3.24	-2.54	-2.10	-2.00
Downside Deviation	0.02	0.03	0.04	0.05
Skewness	1.06	-0.20	-0.28	0.12
Kurtosis	2.12	-0.22	-0.49	-0.33
Alpha	-0.10	-0.10	-0.10	-0.13
Beta	1.00	1.00	1.00	1.00
Residual Risk	0.04	0.04	0.05	0.07
R Squared	1.00	1.00	1.00	1.00







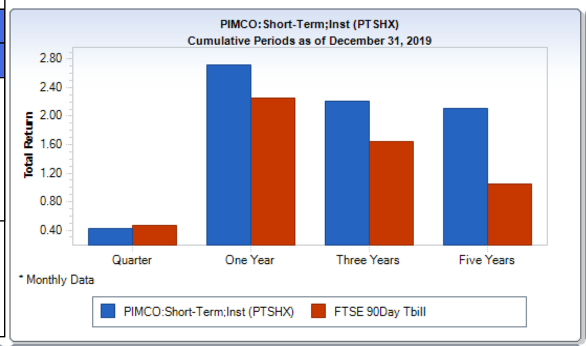


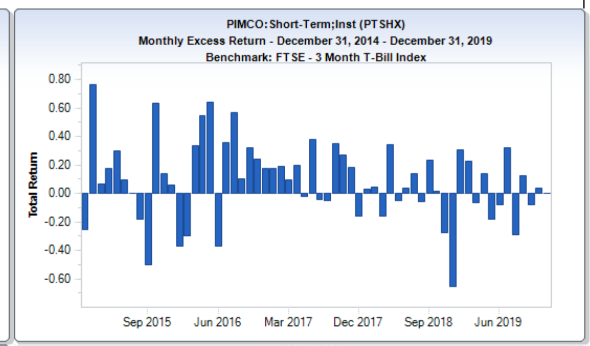
Performance Fact Sheet: PIMCO:Short-Term;Inst (PTSHX)

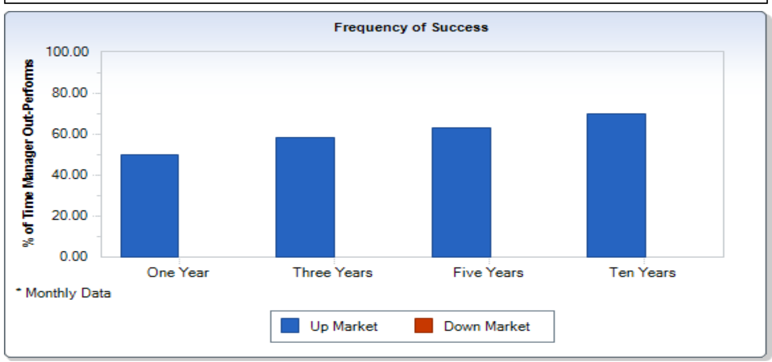
Fund Family:	PIMCO		Net Assets ($MM):	
Asset Class:	Taxable Fixed Income		Expense Ratio:	0.50
Style Category:	Ultra Sht Obligation Fds		Front Load:	
Objective Category:	ULTRA-SHORT OBLIG		12B-1 Fee:	
Ticker:	PTSHX		Turnover:	104.00
Share Class:	I		Mgr Tenure:	9

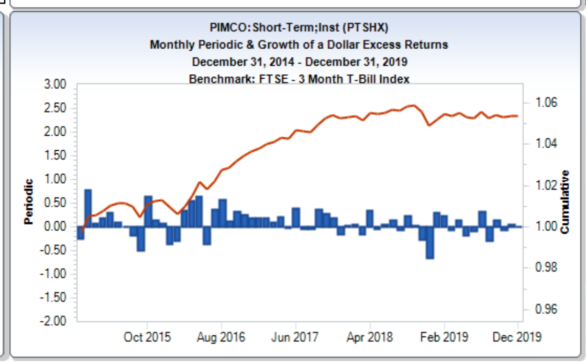
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
PIMCO:Short-Term;Inst (PTSHX)	2.72	2.22	2.11	1.80	2.72	1.50	2.44	2.55	1.34	0.96	0.82	3.42	0.36	1.95
FTSE 90Day Tbill	2.25	1.65	1.05	0.56	2.25	1.86	0.84	0.27	0.03	0.03	0.05	0.07	0.08	0.13
Risk - Standard Deviation														
PIMCO:Short-Term;Inst (PTSHX)	0.67	0.70	0.93	0.90	0.67	0.85	0.57	1.25	1.22	0.55	0.96	0.75	1.02	0.78
FTSE 90Day Tbill	0.08	0.19	0.26	0.23	0.08	0.10	0.08	0.02	0.01	0.00	0.01	0.01	0.01	0.01
Risk - Semi-Variance														
PIMCO:Short-Term;Inst (PTSHX)	0.45	0.52	0.69	0.67	0.45	0.67	0.40	0.98	0.81	0.46	0.78	0.43	0.81	0.61
FTSE 90Day Tbill	0.06	0.14	0.17	0.11	0.06	0.07	0.06	0.01	0.00	0.00	0.00	0.01	0.01	0.01
Excess Returns														
Arithmetic Excess	0.47	0.57	1.06	1.24	0.47	-0.36	1.60	2.28	1.31	0.93	0.77	3.35	0.28	1.82
Geometric Excess	0.46	0.56	1.05	1.23	0.46	-0.35	1.59	2.27	1.31	0.93	0.77	3.35	0.28	1.82

Excess Statistics	Annualized Ended 12/31/2019			
Manager vs. Benchmark	1 Year	3 Years	5 Years	10 Years
Tracking Error	0.66	0.74	0.96	0.91
Information Ratio	0.69	0.75	1.09	1.36
Downside Deviation	0.46	0.57	0.69	0.67
Skewness	-0.01	-0.91	-0.07	-0.32
Kurtosis	-0.79	1.99	0.45	0.94
Alpha	0.70	0.63	1.18	1.35
Beta	9.68	4.97	5.96	6.29
Residual Risk	0.45	0.72	0.94	0.89
R Squared	0.74	0.13	0.07	0.05







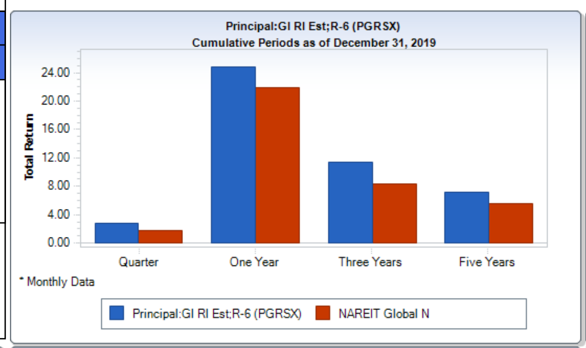


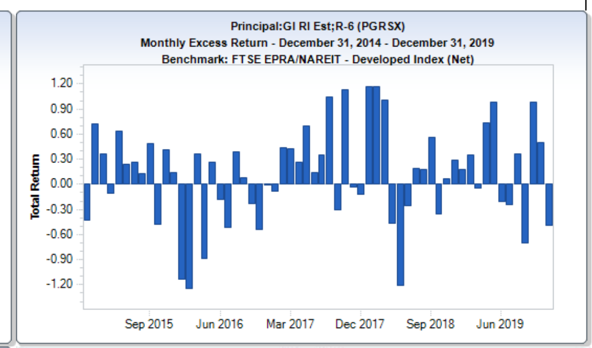
Performance Fact Sheet: Principal:Gl Rl Est;R-6 (PGRSX)

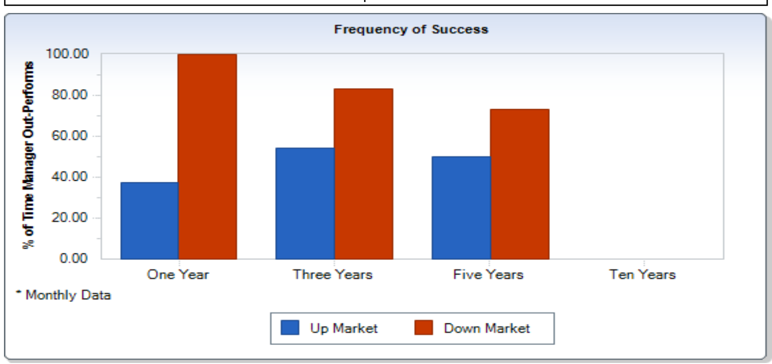
Fund Family:	Principal Global Investors LLC	Net Assets ($MM):	$1,166.90
Asset Class:	Real Estate	Expense Ratio:	0.88
Style Category:	Global Real Estate Funds	Front Load:	
Objective Category:	GLB REAL ESTATE	12B-1 Fee:	
Ticker:	PGRSX	Turnover:	24.00
Share Class:	Standard	Mgr Tenure:	6

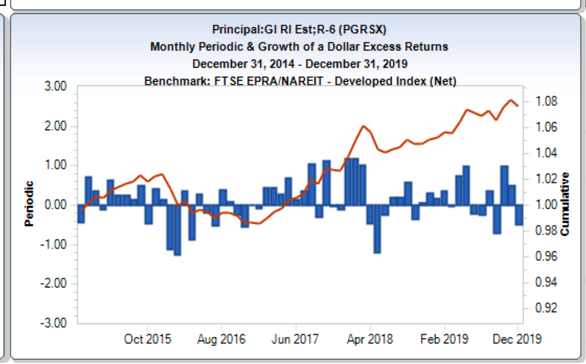
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Principal:Gl Rl Est;R-6 (PGRSX)	24.84	11.44	7.12	N/A	24.84	-3.41	14.78	0.30	1.58	N/A	N/A	N/A	N/A	N/A
NAREIT Global N	21.91	8.28	5.56	8.37	21.91	-5.63	10.36	4.06	-0.79	15.02	3.67	27.73	-6.46	19.63
Risk - Standard Deviation														
Principal:Gl Rl Est;R-6 (PGRSX)	11.14	9.65	11.22	N/A	11.14	10.98	4.53	15.46	11.38	N/A	N/A	N/A	N/A	N/A
NAREIT Global N	11.29	9.89	11.25	13.97	11.29	11.50	4.62	14.79	11.98	10.73	15.00	12.27	21.60	20.33
Risk - Semi-Variance														
Principal:Gl Rl Est;R-6 (PGRSX)	5.22	6.61	7.72	N/A	5.22	8.76	3.19	9.71	8.11	N/A	N/A	N/A	N/A	N/A
NAREIT Global N	5.59	6.91	7.69	10.05	5.59	9.29	3.19	9.39	8.16	8.17	11.16	9.42	15.30	15.16
Excess Returns														
Arithmetic Excess	2.93	3.16	1.56	N/A	2.93	2.22	4.42	-3.76	2.37	N/A	N/A	N/A	N/A	N/A
Geometric Excess	2.40	2.92	1.48	N/A	2.40	2.35	4.01	-3.61	2.39	N/A	N/A	N/A	N/A	N/A

Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	1.92	1.97	1.98	N/A
Information Ratio	1.25	1.48	0.75	N/A
Downside Deviation	1.37	1.41	1.46	N/A
Skewness	-0.05	-0.18	-0.30	N/A
Kurtosis	-0.99	-0.14	0.04	N/A
Alpha	2.87	3.19	1.56	N/A
Beta	0.97	0.96	0.98	N/A
Residual Risk	1.91	1.93	1.96	N/A
R Squared	0.97	0.96	0.97	N/A









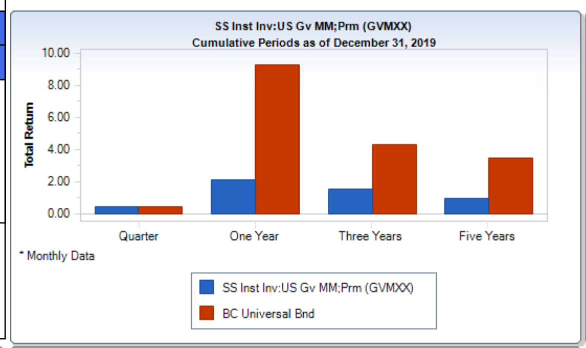
	Quarter	One Year	Three Years	Five Years
Principal:Gl Rl Est;R-6 (PGRSX)	2.75 (44%)	24.84 (35%)	11.44 (14%)	7.12 (26%)
NAREIT Global N	1.75 (81%)	21.91 (70%)	8.28 (65%)	5.56 (56%)
# of Products	182	182	159	134

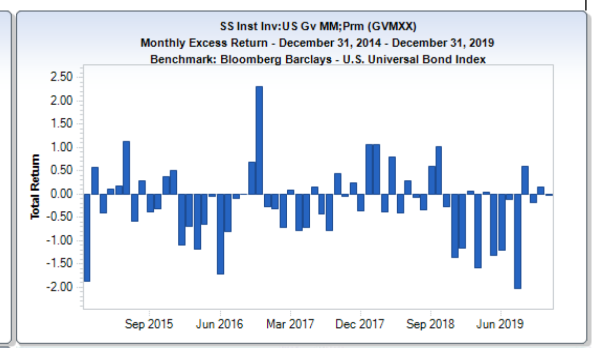
Performance Fact Sheet: SS Inst Inv:US Gv MM;Prm (GVMXX)

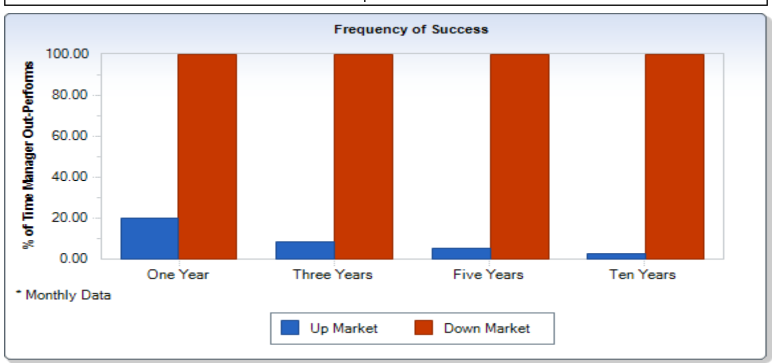
Fund Family:	State Street Bank and Trust Company	Net Assets ($MM):	$52,752.80
Asset Class:	Taxable Fixed Income	Expense Ratio:	0.12
Style Category:	Instl US Govt MM Funds	Front Load:	
Objective Category:	INSTL US GOVT MMKT	12B-1 Fee:	
Ticker:	GVMXX	Turnover:	
Share Class:	Standard	Mgr Tenure:	

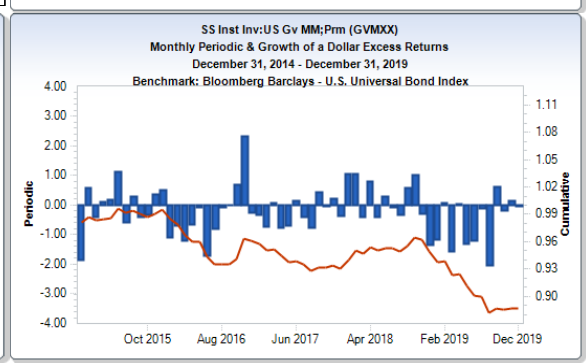
Historical Returns	Annualized Ended 12/31/2019				Annual Returns									
	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
SS Inst Inv:US Gv MM;Prm (GVMX	2.14	1.56	0.98	0.50	2.14	1.75	0.80	0.24	0.00	0.00	0.00	0.00	0.02	0.08
BC Universal Bnd	9.29	4.30	3.44	4.12	9.29	-0.25	4.09	3.91	0.43	5.56	-1.35	5.53	7.40	7.16
Risk - Standard Deviation														
SS Inst Inv:US Gv MM;Prm (GVMX	0.08	0.18	0.25	0.22	0.08	0.10	0.06	0.01	0.00	0.00	0.00	0.00	0.01	0.02
BC Universal Bnd	3.02	2.66	2.84	2.74	3.02	2.70	1.48	3.59	2.66	2.37	3.35	1.86	2.22	2.78
Risk - Semi-Variance														
SS Inst Inv:US Gv MM;Prm (GVMX	0.07	0.13	0.16	0.11	0.07	0.07	0.05	0.01	0.00	0.00	0.00	0.00	0.01	0.01
BC Universal Bnd	1.95	1.74	1.99	1.99	1.95	1.82	1.08	2.92	1.60	1.79	2.51	1.17	1.55	2.09
Excess Returns														
Arithmetic Excess	-7.15	-2.74	-2.46	-3.62	-7.15	2.00	-3.29	-3.67	-0.43	-5.56	1.35	-5.53	-7.38	-7.08
Geometric Excess	-6.54	-2.63	-2.38	-3.48	-6.54	2.01	-3.16	-3.53	-0.43	-5.27	1.37	-5.24	-6.87	-6.61

Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	2.93	2.59	2.79	2.72
Information Ratio	-2.23	-1.02	-0.85	-1.28
Downside Deviation	2.23	1.92	1.97	1.85
Skewness	-0.45	-0.34	0.13	0.39
Kurtosis	-1.25	-0.04	0.84	0.47
Alpha	-0.06	-0.09	-0.08	-0.07
Beta	-0.01	-0.01	0.00	0.00
Residual Risk	0.05	0.05	0.05	0.04
R Squared	0.33	0.08	0.04	0.01







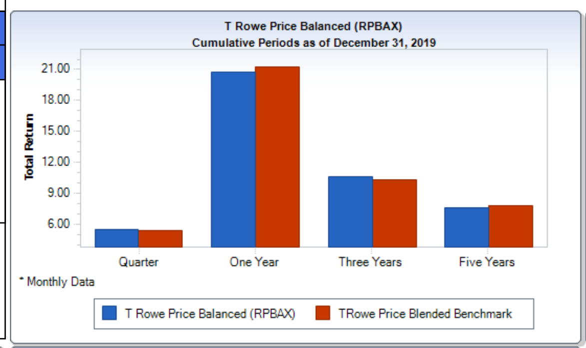


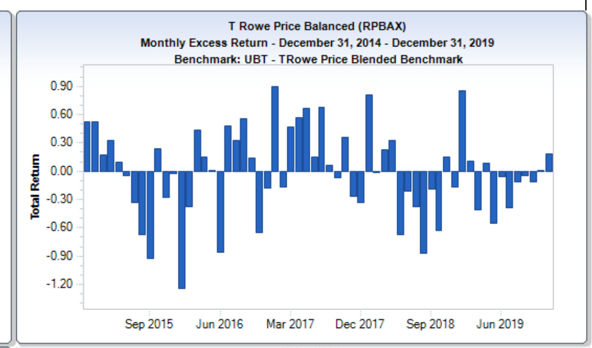
Performance Fact Sheet: T Rowe Price Balanced (RPBAX)

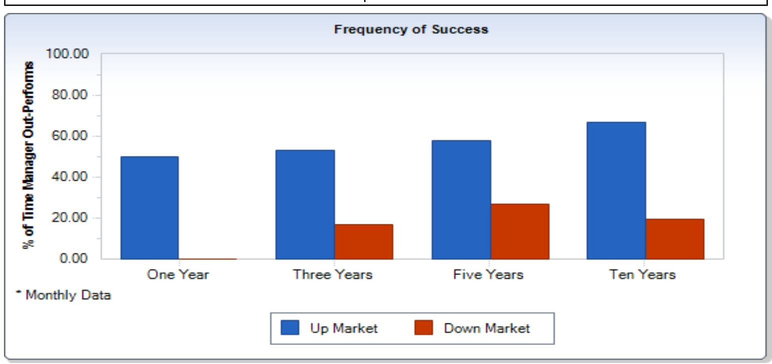
Fund Family:	T. Rowe Price Associates Inc	Net Assets ($MM):	$3,910.40
Asset Class:	Balanced	Expense Ratio:	0.58
Style Category:	Mixed-Asset Target Allocation Growth	Front Load:	
Objective Category:	BALANCED	12B-1 Fee:	
Ticker:	RPBAX	Turnover:	68.00
Share Class:	Standard	Mgr Tenure:	9

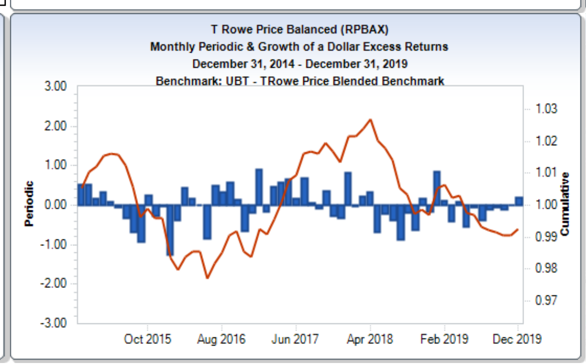
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
T Rowe Price Balanced (RPBAX)	20.71	10.64	7.62	8.96	20.71	-4.92	18.00	5.91	0.65	5.97	19.24	13.94	0.88	12.49
TRowe Price Blended Benchmark	21.27	10.31	7.78	8.99	21.27	-3.35	14.52	7.23	1.08	8.68	16.70	11.50	3.18	11.45
Risk - Standard Deviation														
T Rowe Price Balanced (RPBAX)	8.09	7.56	7.77	8.73	8.09	8.89	2.44	7.42	8.98	6.03	6.53	8.46	12.26	13.54
TRowe Price Blended Benchmark	7.12	6.90	6.96	7.37	7.12	8.45	2.08	6.16	8.04	5.25	5.80	6.51	9.55	11.15
Risk - Semi-Variance														
T Rowe Price Balanced (RPBAX)	5.82	5.94	5.79	6.41	5.82	6.96	1.76	5.11	5.92	4.24	5.02	7.06	8.00	9.94
TRowe Price Blended Benchmark	5.23	5.52	5.20	5.44	5.23	6.69	1.45	4.12	5.10	3.86	4.64	5.35	6.19	8.15
Excess Returns														
Arithmetic Excess	-0.56	0.33	-0.16	-0.03	-0.56	-1.57	3.48	-1.32	-0.43	-2.71	2.54	2.44	-2.30	1.04
Geometric Excess	-0.46	0.30	-0.15	-0.03	-0.46	-1.62	3.04	-1.23	-0.43	-2.49	2.18	2.19	-2.23	0.93

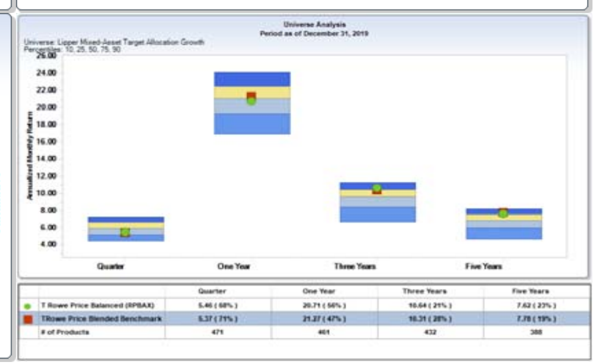
Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	1.24	1.52	1.61	1.90
Information Ratio	-0.37	0.20	-0.09	-0.02
Downside Deviation	0.76	1.02	1.18	1.41
Skewness	1.16	0.25	-0.29	-0.36
Kurtosis	2.98	-0.31	-0.06	0.77
Alpha	-2.43	-0.30	-0.76	-1.32
Beta	1.13	1.08	1.10	1.17
Residual Risk	0.87	1.44	1.47	1.44
R Squared	0.99	0.96	0.96	0.97









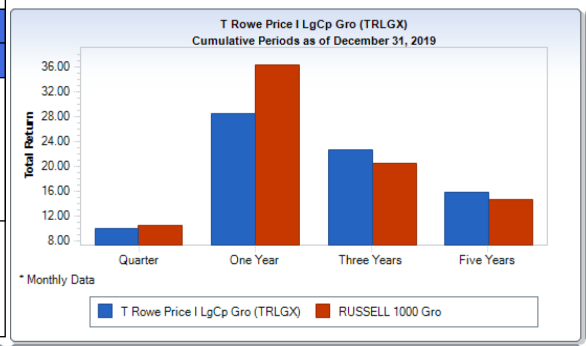


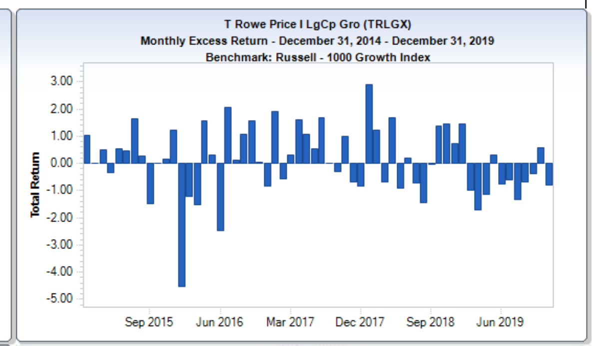
Performance Fact Sheet: T Rowe Price I LgCp Gro (TRLGX)

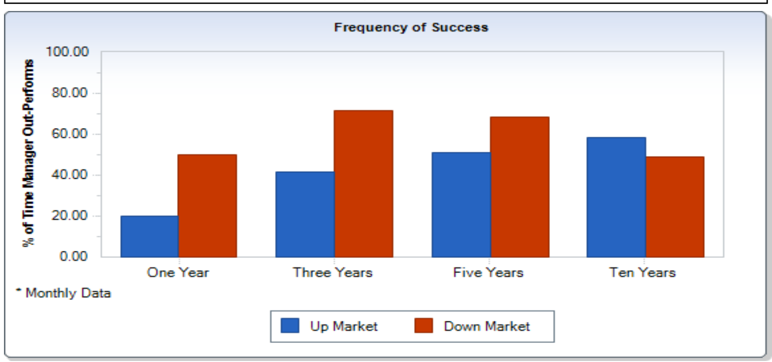
Fund Family:	T. Rowe Price Associates Inc	Net Assets ($MM):	$16,601.60
Asset Class:	U.S. Equity	Expense Ratio:	0.56
Style Category:	Large-Cap Growth Funds	Front Load:	
Objective Category:	GROWTH	12B-1 Fee:	
Ticker:	TRLGX	Turnover:	33.00
Share Class:	Standard	Mgr Tenure:	3

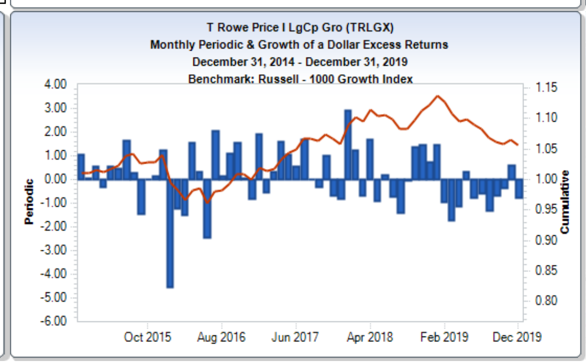
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
T Rowe Price I LgCp Gro (TRLGX)	28.49	22.69	15.89	16.03	28.49	4.30	37.82	2.85	10.04	8.70	44.44	17.54	-1.40	16.29
RUSSELL 1000 Gro	36.39	20.49	14.63	15.22	36.39	-1.51	30.21	7.08	5.67	13.05	33.49	15.26	2.63	16.72
Risk - Standard Deviation														
T Rowe Price I LgCp Gro (TRLGX)	14.43	13.64	13.90	14.99	14.43	17.54	6.32	14.51	14.45	11.35	9.73	15.51	18.68	22.58
RUSSELL 1000 Gro	13.41	13.26	12.92	13.15	13.41	17.44	4.57	11.02	14.05	9.30	8.05	11.61	15.98	20.08
Risk - Semi-Variance														
T Rowe Price I LgCp Gro (TRLGX)	10.20	10.36	10.32	10.95	10.20	13.04	4.57	11.35	9.26	8.01	7.07	12.42	11.42	16.49
RUSSELL 1000 Gro	10.46	10.70	9.71	9.77	10.46	13.53	3.39	7.56	8.68	6.45	6.46	9.31	10.32	14.86
Excess Returns														
Arithmetic Excess	-7.90	2.20	1.26	0.81	-7.90	5.81	7.61	-4.23	4.37	-4.35	10.95	2.28	-4.03	-0.43
Geometric Excess	-5.79	1.83	1.10	0.70	-5.79	5.90	5.84	-3.95	4.14	-3.85	8.20	1.98	-3.93	-0.37

Excess Statistics	Annualized Ended 12/31/2019			
Manager vs. Benchmark	1 Year	3 Years	5 Years	10 Years
Tracking Error	3.08	3.93	4.40	4.46
Information Ratio	-1.88	0.47	0.25	0.16
Downside Deviation	1.80	2.57	3.29	3.34
Skewness	1.03	0.44	-0.66	-0.54
Kurtosis	0.91	-0.67	1.79	0.80
Alpha	-6.95	2.08	0.86	-0.44
Beta	1.05	0.98	1.02	1.09
Residual Risk	3.15	4.04	4.42	4.34
R Squared	0.95	0.91	0.90	0.92









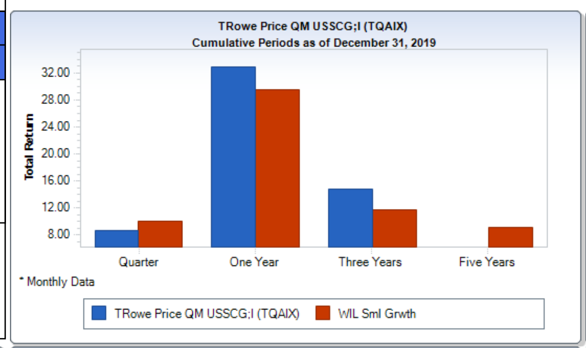
	Quarter	One Year	Three Years	Five Years
T Rowe Price I LgCp Gro (TRLGX)	10.01 (43%)	28.49 (79%)	22.69 (9%)	15.89 (4%)
RUSSELL 1000 Gro	10.62 (29%)	36.39 (16%)	20.49 (30%)	14.63 (16%)
# of Products	973	973	966	867

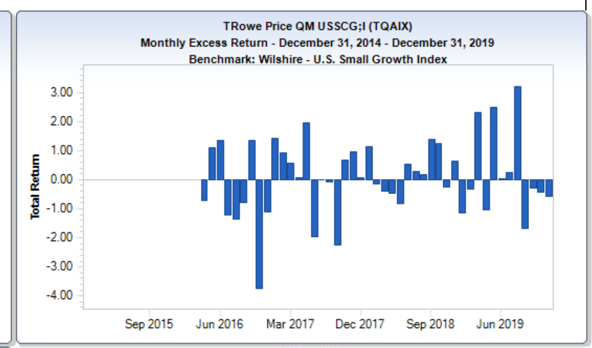
Performance Fact Sheet: TRowe Price QM USSCG;I (TQAIX)

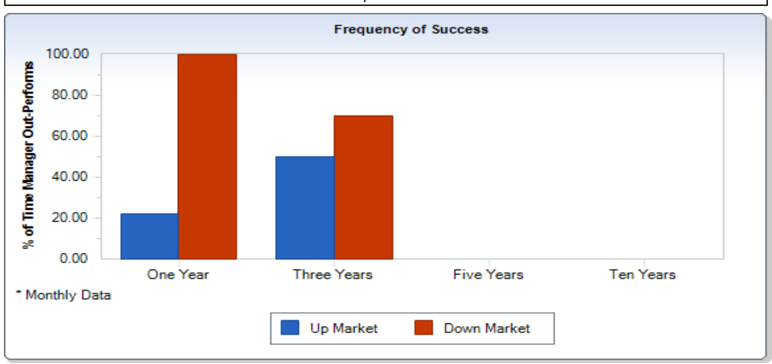
Fund Family:	T. Rowe Price Associates Inc	Net Assets ($MM):	$3,344.60
Asset Class:	U.S. Equity	Expense Ratio:	0.66
Style Category:	Small-Cap Growth Funds	Front Load:	
Objective Category:	SMALL-CAP	12B-1 Fee:	
Ticker:	TQAIX	Turnover:	18.00
Share Class:	Standard	Mgr Tenure:	4

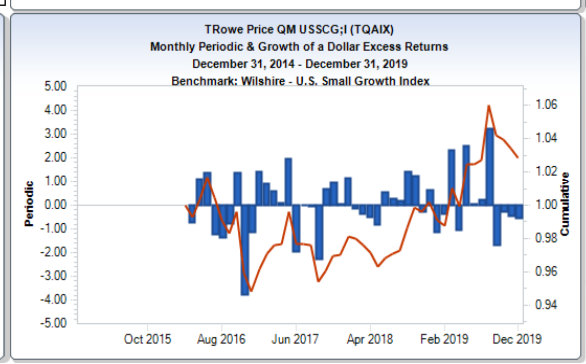
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
TRowe Price QM USSCG;I (TQAIX)	32.92	14.89	N/A	N/A	32.92	-6.70	22.28	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WIL Sml Grwth	29.49	11.81	9.14	13.32	29.49	-9.71	19.55	16.97	-5.28	4.23	45.00	15.69	-1.64	31.08
Risk - Standard Deviation														
TRowe Price QM USSCG;I (TQAIX)	15.47	14.85	N/A	N/A	15.47	19.55	4.58	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WIL Sml Grwth	19.06	16.72	17.00	17.20	19.06	20.45	6.72	19.92	15.44	14.81	10.97	13.41	22.93	22.34
Risk - Semi-Variance														
TRowe Price QM USSCG;I (TQAIX)	10.67	11.74	N/A	N/A	10.67	16.00	3.27	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WIL Sml Grwth	13.99	13.09	12.80	12.67	13.99	16.82	4.14	14.38	10.66	10.74	7.94	10.74	14.92	17.00
Excess Returns														
Arithmetic Excess	3.43	3.08	N/A	N/A	3.43	3.01	2.73	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Geometric Excess	2.65	2.75	N/A	N/A	2.65	3.33	2.28	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	5.44	4.13	N/A	N/A
Information Ratio	0.49	0.67	N/A	N/A
Downside Deviation	3.11	2.78	N/A	N/A
Skewness	0.96	0.30	N/A	N/A
Kurtosis	-0.31	0.42	N/A	N/A
Alpha	7.38	4.04	N/A	N/A
Beta	0.79	0.86	N/A	N/A
Residual Risk	3.49	3.43	N/A	N/A
R Squared	0.95	0.95	N/A	N/A







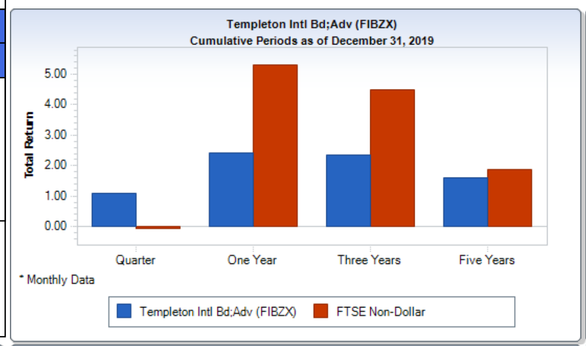


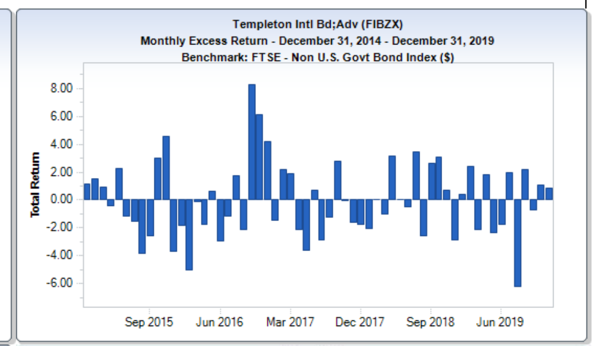
Performance Fact Sheet: Templeton Intl Bd;Adv (FIBZX)

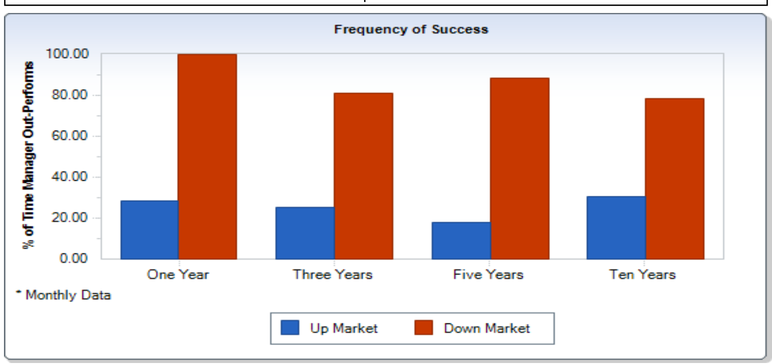
Fund Family:	FRANKLIN TEMPLETON INVESTMENTS		Net Assets ($MM):	
Asset Class:	Global Fixed Income		Expense Ratio:	0.83
Style Category:	International Income Fds		Front Load:	
Objective Category:	INTERNATIONAL INCOME		12B-1 Fee:	
Ticker:	FIBZX		Turnover:	43.00
Share Class:	Advisor		Mgr Tenure:	13

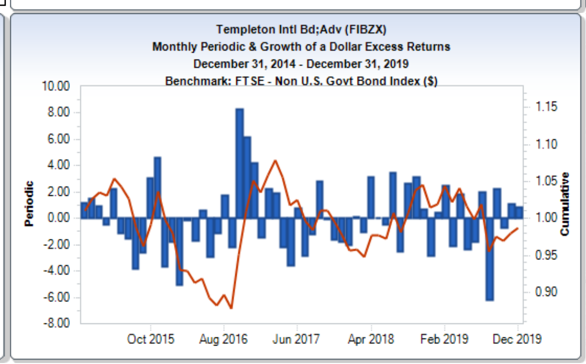
Historical Returns	Annualized Ended 12/31/2019				Annual Returns									
	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Templeton Intl Bd;Adv (FIBZX)	2.43	2.34	1.61	3.00	2.43	2.07	2.51	7.23	-5.73	-2.32	-0.04	13.44	-1.00	13.13
FTSE Non-Dollar	5.32	4.49	1.87	1.36	5.32	-1.82	10.33	1.81	-5.54	-2.68	-4.56	1.51	5.17	5.21
Risk - Standard Deviation														
Templeton Intl Bd;Adv (FIBZX)	6.18	5.49	5.91	6.88	6.18	6.11	4.53	6.62	6.29	5.26	5.56	8.28	10.06	8.57
FTSE Non-Dollar	5.59	5.51	7.01	6.96	5.59	6.25	4.48	11.24	5.82	5.90	6.43	4.41	6.78	10.54
Risk - Semi-Variance														
Templeton Intl Bd;Adv (FIBZX)	5.09	4.22	4.18	5.06	5.09	4.69	2.97	4.09	3.97	3.84	4.13	6.60	7.94	6.45
FTSE Non-Dollar	3.95	3.80	5.12	5.12	3.95	3.82	3.21	8.47	4.43	4.73	4.61	3.00	4.99	8.16
Excess Returns														
Arithmetic Excess	-2.89	-2.15	-0.26	1.64	-2.89	3.89	-7.82	5.42	-0.19	0.36	4.52	11.93	-6.17	7.92
Geometric Excess	-2.74	-2.06	-0.26	1.62	-2.74	3.96	-7.09	5.32	-0.20	0.37	4.74	11.75	-5.87	7.53

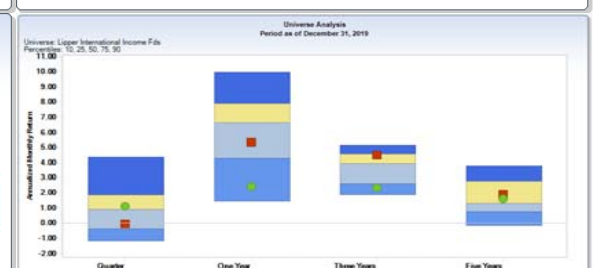
Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	8.88	7.91	9.41	8.30
Information Ratio	-0.31	-0.26	-0.03	0.20
Downside Deviation	7.20	5.77	6.29	5.59
Skewness	-1.21	-0.33	0.43	0.40
Kurtosis	1.44	-0.23	0.56	0.75
Alpha	0.71	0.77	0.56	2.18
Beta	-0.19	-0.04	-0.04	0.29
Residual Risk	6.11	5.52	5.91	6.59
R Squared	0.03	0.00	0.00	0.09











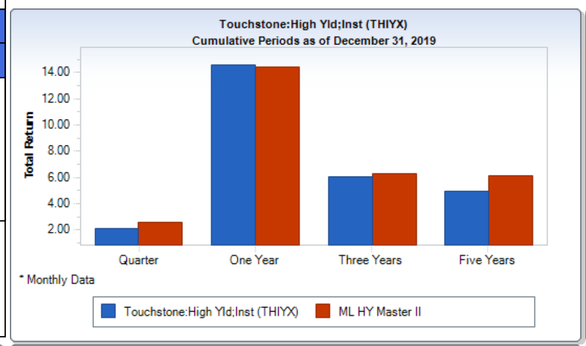
	Quarter	One Year	Three Years	Five Years
Templeton Intl Bd;Adv (FIBZX)	1.10 (44%)	2.43 (84%)	2.34 (82%)	1.61 (43%)
FTSE Non-Dollar	-0.87 (71%)	5.32 (66%)	4.49 (30%)	1.87 (35%)
# of Products	111	110	95	82

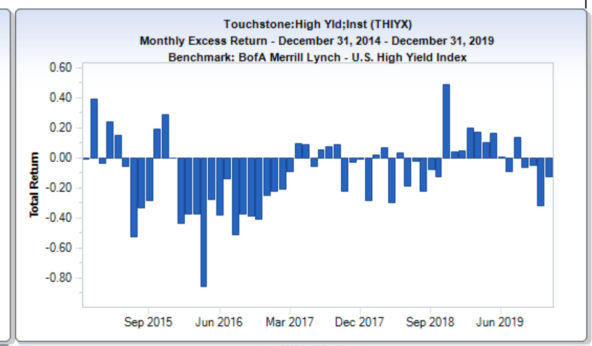
Performance Fact Sheet: Touchstone:High Yld;Inst (THIYX)

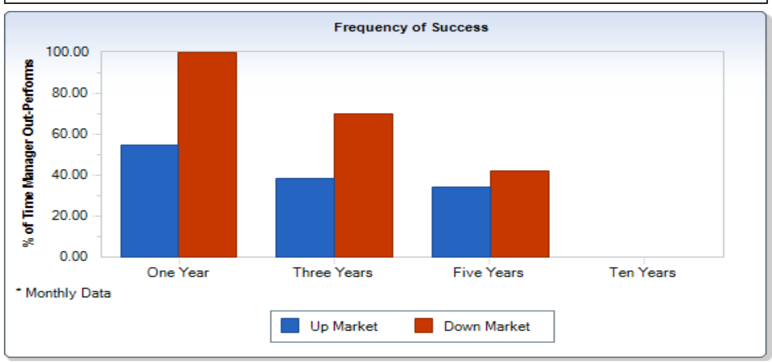
Fund Family:	TOUCHSTONE ADVISORS INC	Net Assets ($MM):	$141.90
Asset Class:	Taxable Fixed Income	Expense Ratio:	0.72
Style Category:	High Yield Funds	Front Load:	
Objective Category:	HIGH YIELD	12B-1 Fee:	
Ticker:	THIYX	Turnover:	63.00
Share Class:	I	Mgr Tenure:	8

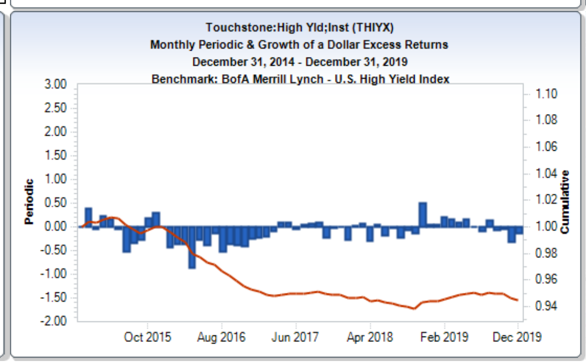
Historical Returns	Annualized Ended 12/31/2019				Annual Returns									
	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Touchstone:High Yld;Inst (THIYX)	14.59	6.02	4.94	N/A	14.59	-2.81	6.98	11.99	-4.63	1.94	5.84	N/A	N/A	N/A
ML HY Master II	14.41	6.32	6.13	7.50	14.41	-2.25	7.45	17.49	-4.64	2.50	7.42	15.58	4.38	15.19
Risk - Standard Deviation														
Touchstone:High Yld;Inst (THIYX)	5.16	4.17	5.30	N/A	5.16	3.35	2.19	5.88	6.97	4.78	5.09	N/A	N/A	N/A
ML HY Master II	5.11	4.19	5.35	5.81	5.11	3.65	2.20	6.04	6.43	4.52	4.77	3.81	9.63	6.98
Risk - Semi-Variance														
Touchstone:High Yld;Inst (THIYX)	3.17	2.69	3.65	N/A	3.17	2.67	1.58	3.99	4.50	3.64	4.05	N/A	N/A	N/A
ML HY Master II	3.14	2.79	3.67	4.25	3.14	2.83	1.55	4.01	4.25	3.53	3.82	2.96	6.93	5.71
Excess Returns														
Arithmetic Excess	0.18	-0.30	-1.19	N/A	0.18	-0.56	-0.47	-5.50	0.01	-0.56	-1.58	N/A	N/A	N/A
Geometric Excess	0.16	-0.28	-1.12	N/A	0.16	-0.57	-0.44	-4.68	0.01	-0.55	-1.47	N/A	N/A	N/A

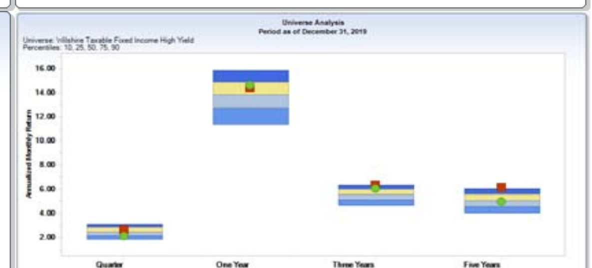
Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	0.53	0.57	0.85	N/A
Information Ratio	0.30	-0.49	-1.32	N/A
Downside Deviation	0.41	0.39	0.63	N/A
Skewness	-0.80	0.48	-0.35	N/A
Kurtosis	0.46	1.37	0.68	N/A
Alpha	0.13	-0.21	-1.00	N/A
Beta	1.00	0.98	0.98	N/A
Residual Risk	0.53	0.57	0.85	N/A
R Squared	0.99	0.98	0.97	N/A











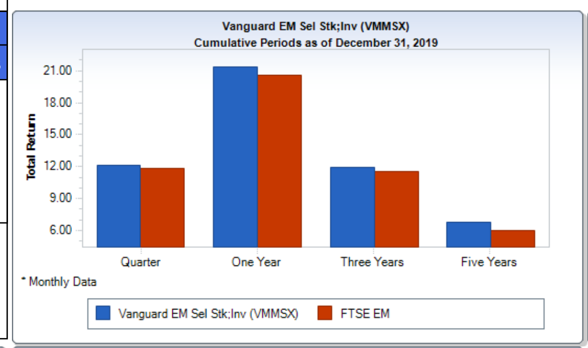
	Quarter	One Year	Three Years	Five Years
Touchstone:High Yld;Inst (THIYX)	2.09 (80%)	14.59 (33%)	6.02 (23%)	4.94 (56%)
ML HY Master II	2.61 (41%)	14.41 (36%)	6.32 (12%)	6.13 (10%)
# of Products	529	529	449	403

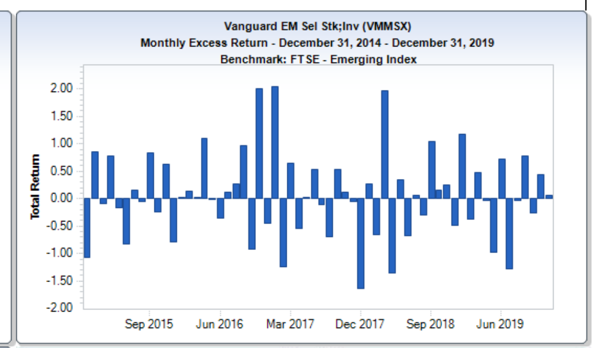
Performance Fact Sheet: Vanguard EM Sel Stk;Inv (VMMSX)

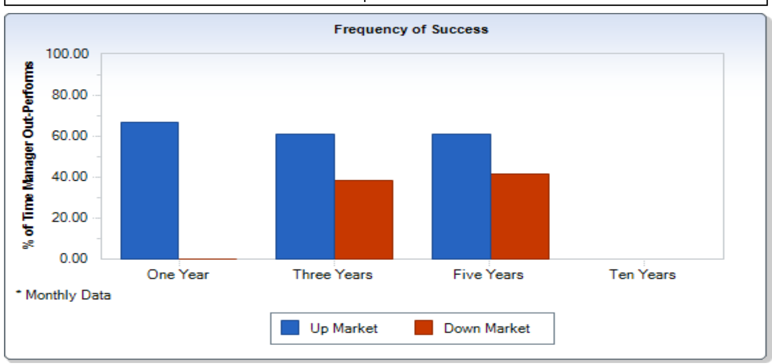
Fund Family:	VANGUARD GROUP INC	Net Assets ($MM):	$760.90
Asset Class:	Non U.S. Equity	Expense Ratio:	0.94
Style Category:	Emerging Markets Funds	Front Load:	
Objective Category:	EMERGING MARKETS	12B-1 Fee:	0.02
Ticker:	VMMSX	Turnover:	76.00
Share Class:	Investor	Mgr Tenure:	

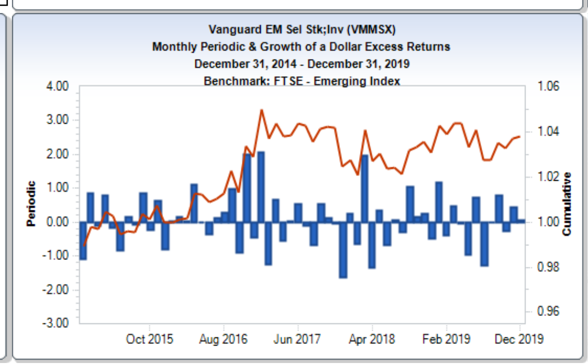
	Annualized Ended 12/31/2019				Annual Returns									
Historical Returns	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Vanguard EM Sel Stk;Inv (VMMSX)	21.37	11.91	6.78	N/A	21.37	-12.52	32.00	16.87	-15.25	-6.64	1.00	22.56	N/A	N/A
FTSE EM	20.55	11.59	5.99	4.14	20.55	-13.03	32.53	13.53	-15.22	1.55	-3.50	17.94	-18.96	19.82
Risk - Standard Deviation														
Vanguard EM Sel Stk;Inv (VMMSX)	16.43	14.49	15.91	N/A	16.43	16.18	7.22	17.46	18.03	15.14	13.18	19.26	N/A	N/A
FTSE EM	14.80	13.67	15.46	16.91	14.80	15.57	6.78	18.02	17.55	14.17	12.69	19.96	23.09	20.61
Risk - Semi-Variance														
Vanguard EM Sel Stk;Inv (VMMSX)	11.99	10.37	10.94	N/A	11.99	9.60	4.21	10.99	11.18	12.07	8.96	14.67	N/A	N/A
FTSE EM	10.77	9.86	10.73	11.95	10.77	9.08	4.76	11.44	11.25	11.67	8.07	14.93	16.09	14.27
Excess Returns														
Arithmetic Excess	0.82	0.32	0.79	N/A	0.82	0.51	-0.53	3.34	-0.03	-8.19	4.50	4.62	N/A	N/A
Geometric Excess	0.68	0.29	0.75	N/A	0.68	0.59	-0.40	2.94	-0.04	-8.06	4.66	3.92	N/A	N/A

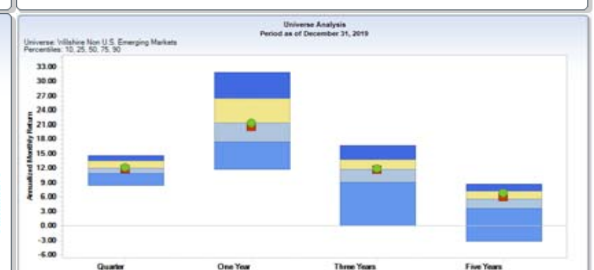
Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	2.49	2.88	2.72	N/A
Information Ratio	0.27	0.10	0.27	N/A
Downside Deviation	1.86	1.98	1.85	N/A
Skewness	-0.42	0.30	0.34	N/A
Kurtosis	-0.23	0.53	0.48	N/A
Alpha	-0.85	-0.06	0.68	N/A
Beta	1.10	1.04	1.01	N/A
Residual Risk	2.03	2.87	2.73	N/A
R Squared	0.98	0.96	0.97	N/A











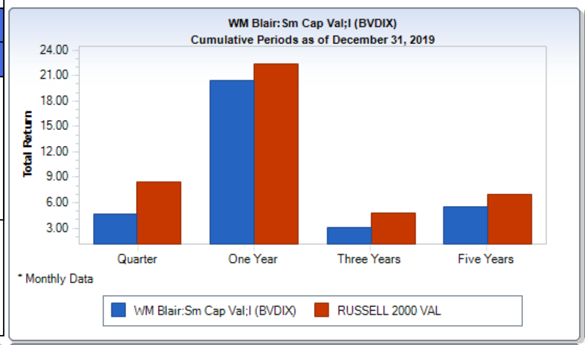
	Quarter	One Year	Three Years	Five Years
Vanguard EM Sel Stk;Inv (VMMSX)	12.09 (50%)	21.37 (51%)	11.91 (49%)	6.78 (33%)
FTSE EM	11.81 (56%)	20.55 (54%)	11.59 (52%)	5.99 (48%)
# of Products	445	445	374	311

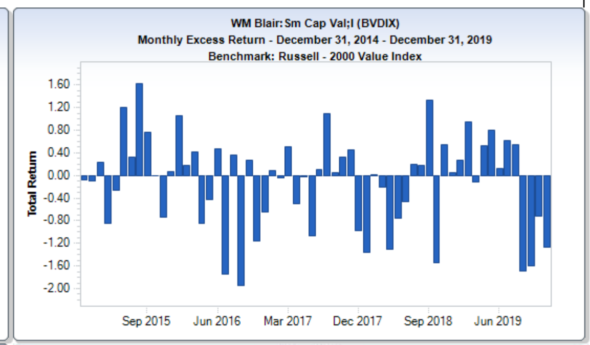
Performance Fact Sheet: WM Blair:Sm Cap Val;I (BVDIX)

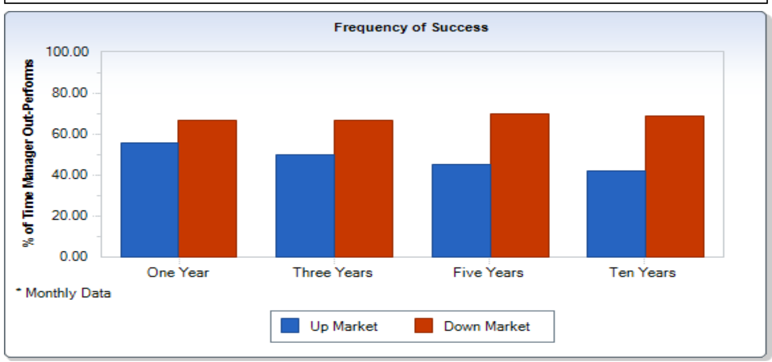
Fund Family:	WILLIAM BLAIR & COMPANY LLC	Net Assets ($MM):	$430.20
Asset Class:	U.S. Equity	Expense Ratio:	1.25
Style Category:	Small-Cap Core Funds	Front Load:	
Objective Category:	SMALL-CAP	12B-1 Fee:	
Ticker:	BVDIX	Turnover:	56.00
Share Class:	I	Mgr Tenure:	21

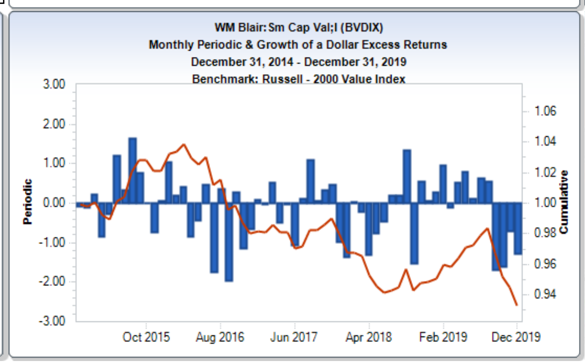
Historical Returns	Annualized Ended 12/31/2019				Annual Returns									
	1 Year	3 Years	5 Years	10 Years	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
WM Blair:Sm Cap Val;I (BVDIX)	20.43	3.05	5.52	10.16	20.43	-15.75	7.84	26.46	-5.48	4.74	39.30	12.71	-6.68	31.16
RUSSELL 2000 VAL	22.39	4.77	6.99	10.56	22.39	-12.86	7.84	31.74	-7.47	4.22	34.50	18.05	-5.50	24.51
Risk - Standard Deviation														
WM Blair:Sm Cap Val;I (BVDIX)	17.68	15.74	15.29	16.25	17.68	18.09	9.42	16.47	12.29	15.86	11.99	10.75	21.77	22.38
RUSSELL 2000 VAL	18.26	15.90	15.88	16.78	18.26	17.99	9.68	17.81	12.96	15.47	10.90	12.19	22.33	24.66
Risk - Semi-Variance														
WM Blair:Sm Cap Val;I (BVDIX)	12.87	12.03	11.08	11.76	12.87	15.19	5.59	10.55	8.25	11.55	9.10	8.52	14.57	17.27
RUSSELL 2000 VAL	14.00	12.24	11.55	12.32	14.00	14.91	5.84	11.80	8.68	11.54	8.53	9.36	14.86	19.39
Excess Returns														
Arithmetic Excess	-1.96	-1.72	-1.47	-0.40	-1.96	-2.89	0.00	-5.28	1.99	0.52	4.80	-5.34	-1.18	6.65
Geometric Excess	-1.60	-1.64	-1.37	-0.36	-1.60	-3.32	0.00	-4.01	2.15	0.50	3.57	-4.52	-1.25	5.34

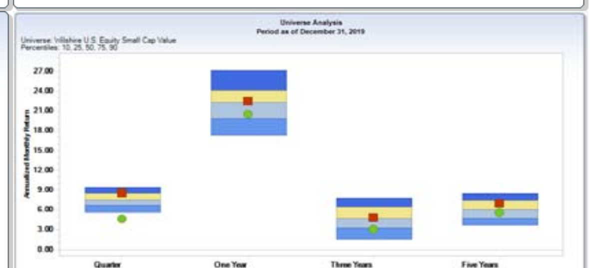
Excess Statistics Manager vs. Benchmark	Annualized Ended 12/31/2019			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	3.30	2.78	2.85	2.83
Information Ratio	-0.49	-0.59	-0.48	-0.13
Downside Deviation	2.61	2.13	2.15	1.98
Skewness	-0.70	-0.43	-0.36	0.29
Kurtosis	-1.09	-0.65	-0.35	1.10
Alpha	-0.81	-1.57	-1.09	0.05
Beta	0.95	0.97	0.95	0.95
Residual Risk	3.25	2.76	2.74	2.73
R Squared	0.97	0.97	0.97	0.97











	Quarter	One Year	Three Years	Five Years
WM Blair:Sm Cap Val;I (BVDIX)	4.63 (96%)	20.43 (69%)	3.05 (78%)	5.52 (62%)
RUSSELL 2000 VAL	8.49 (23%)	22.39 (47%)	4.77 (49%)	6.99 (36%)
# of Products	319	319	319	288

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