

457 Deferred Compensation Plan

September 30, 2019 Performance Report

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Section 1



"FREE" TRADES

While nationalism and protectionist policies continue to dominate global economic headlines, the online brokerage business here in the US has gone all in on "free" trade policies. Industry titan Charles Schwab pioneered the discount brokerage model and developed a highly successful business focusing on lowering commissions for retail investors. The firm has been so successful at bringing down fees, they recently announced that they would no longer be charging commissions on stock, ETF and certain option trades. On the heels of this announcement other industry leaders followed suit. TD Ameritrade, E*Trade and Interactive Brokers have all initiated similar no fee trading policies. Trading is now "free".

If you are not already, the question you should be asking is if trades are now "free", how do these firms make enough money to stay in business and provide shareholders with competitive returns on capital? A recent article by The Wall Street Journal stated it well, "when you trade for free, you still pay – at a different tollbooth." There are essentially two tollbooths we would like to address, and neither is particularly transparent to the average investor.

Today, one of the primary sources of revenue for brokerage firms is net interest margin. Net interest margin is the difference between the interest income generated by financial institutions and the amount of interest paid out to their lenders. In this case, account holders are the lenders, whether they realize it or not. Virtually all brokerage accounts are set-up to sweep idle cash into low interest bank accounts (sweep vehicles) sponsored by the brokerage firms. The brokerage firm then directs equivalent funds into higher yielding investment accounts of its own and pockets the difference. Over time, account holders have typically seen their choice of sweep vehicles increasingly restricted. Sweep vehicles are generally paying annual interest between 0.10% and 0.60% in today's marketplace. This compares to ultra conservative US government money market funds yielding nearly 2.0%. This business model is not new, the banking industry has been built on revenues from net interest margin. Given this increasing focus on net interest revenues, brokerage clients should be diligent about reviewing their sweep vehicle options.

The other tollbooth we would like to highlight is even less transparent, and while a legal (as long as it is disclosed) common industry practice, has the potential to take money out of investors' pockets, a nearly invisible pickpocket of sorts. Contrary to popular press, Charles Schwab is not leading the industry transition to free trading. They are merely responding to new competition that operates on a far different revenue model. Enter Robinhood, a relatively new brokerage firm founded on the premise of commission-free trading. What's the catch?

In order to process trades brokerage firms have to route their orders through any number of execution firms that match buy and sell orders. Robinhood, and other new competitors, as a practice derive a significant portion of their revenues from selling their brokerage order flow to the highest paying execution firms. Brokerage firms are allowed to sell their order flow but are required by the SEC to disclose to whom and for how much. The execution firms can use the order flow information to run high frequency trading programs that exploit pricing trends, trends visible only with access to order flow. There is a case to be made that the high frequency trading profits come at the expense of brokerage clients in the form of higher execution costs. However, any difference in execution would generally be difficult to detect even for sophisticated investors. The election to sell order flow is unique to each brokerage firm. Investors can access more details on their brokerage firm's order routing practices by referencing the SEC's Rule 606 quarterly reporting.

GLOBAL ECONOMIC LANDSCAPE

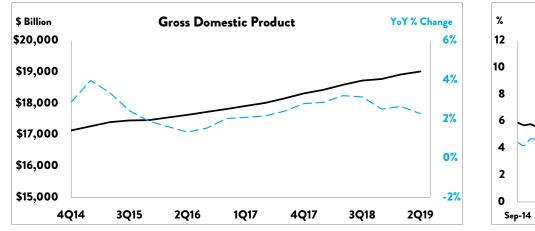
- Domestic markets continue to weigh mixed economic signals. The US economy gained 136,000 jobs in September, which coincided with a 45,000 upward revision to the prior two months. This resulted in a monthly average of just over 156,000 for the quarter, not bad for an aging economic cycle. However, US manufacturing activity fell to its lowest level in more than 10 years in the most recent month. Manufacturing represents a modest 10% of our current economy versus 90% for services. The net result was an unemployment rate that fell to 3.5% in September, its lowest reading since December 1969. This is well below the 50-year average rate of 6.2% and indicates an economy operating near full capacity.
- Economies of developed world countries continue to show signs of economic weakness. Global manufacturing declined another 1.3 points in September to 47.8, the lowest level in a decade. Global service activity has been more positive but shows signs of slowing. UK services Purchasing Managers Index dropped 1.1 points to 49.5 in September. The drop below 50 indicates a shift from expansion to contraction occurred late in the quarter. German industrial activity is nearing recession levels and the United Kingdom's Brexit transition is an ongoing source of uncertainty. Ten-year yields across Germany, France, Switzerland and Japan are all negative, reflecting continued weak growth expectations out of Europe.
- Latin American countries continue to pursue policies of reform to stimulate economic growth. Argentina was experiencing the beginning of a cyclical upswing in its
 economy until unexpected primary election results in August led to a collapse in sovereign bond prices. The Mexican central bank cut their policy rate by 25 basis
 points to counter slowing capital expenditures resulting from expected slower growth in the US. Mexico continues to gain market share of US exports at the
 expense of China. Brazil continues to promote controversial policies of economic growth that include clearing of rainforest to promote agricultural production and
 transitioning certain sovereign energy rights over to private parties to enhance production.

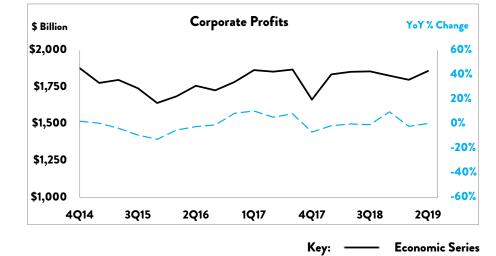
GLOBAL FINANCIAL MARKETS

- Domestic equity markets continue to see increasing cross-sector dispersion and are now seemingly split between cyclical and non-cyclical rotations. Throughout
 most of the quarter and year-to-date, non-cyclical sectors have trended higher on fears of a global economic recession. As a result, Technology, Real Estate and
 Utilities have been consistent outperformers. Cyclical sectors have lagged, dramatically led by Energy, Materials and Consumer Discretionary.
- Domestic fixed income markets benefited from a third consecutive quarter of declining interest rates. 10-year US Treasury yields ended the quarter just above 1.6%. Despite the decline in rates, the US continues to have the highest rate of any G7 country. The following highlights 10-year sovereign yields across the remaining G7 markets; Canada (1.23%), UK (0.44%), Germany (-0.59%), France (-0.28%), Italy (0.83%) and Japan (-0.21%).
- Drone strikes on Saudi Arabia oil production facilities took nearly half of their total daily production offline and sent oil prices skyrocketing by 15% in a single day.
 Markets were quick to reflect the temporary nature of this supply shock and the lack of any significant retaliation against Iran. In less than two weeks oil prices were back down below pre-attack valuations.
- Japanese corporate share repurchases are occurring at record pace. In 2018, Japanese companies announced \$7 trillion Yen (\$65B USD) in stock buybacks which represented a 40% year-over-year increase. This pace continues to pick up and is expected to reach \$9 Trillion Yen (\$85B USD) in 2019.
- Generally poor growth prospects overseas were reflected in negative developed and emerging stock returns this quarter. Though, year-to-date returns have been surprisingly resilient. Developed markets have benefited from central bank pledges of more accommodative policies. Emerging markets have also benefited from easier monetary policy but have been more directly impacted by increasing trade tensions between the US and China, resulting in slower growth expectations.

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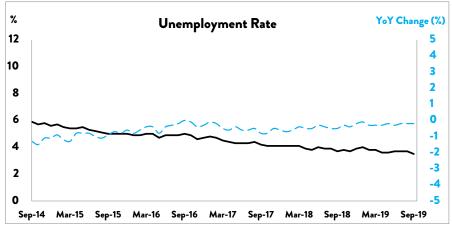
3Q2019 Economic Data

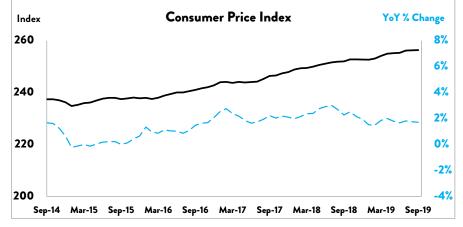




Labor Mar	ket Statis	Labor Market Statistics (Monthly)													
Category	Recent	5-Yr High	5-Yr Low	5-Yr Avg.	Date										
Jobs Added/Lost Monthly	136,000	351,000	14,000	203,033	Sep-19										
Unemployment Rate	3.5%	5.9%	3.5%	4.5%	Sep-19										
Median Unemployment Length (Weeks)	9.8	14.0	6.6	10.4	Sep-19										
Average Hourly Earnings	\$28.09	\$28.10	\$24.58	\$26.22	Sep-19										

Source: Federal Reserve Bank of St. Louis and Bureau of Labor Statistics





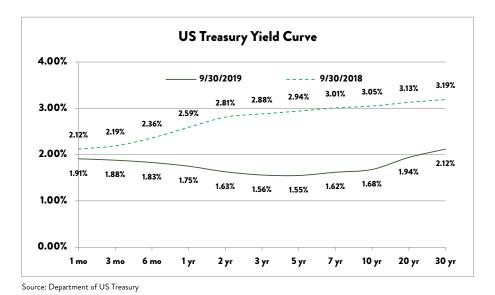
--- Year-Over-Year Change

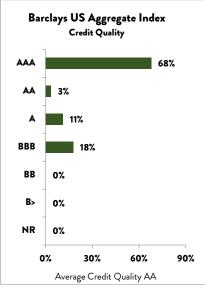
Other Pri	Other Prices and Indexes (Monthly)													
Category	Recent	5-Yr High	5-Yr Low	% Off Peak	Date									
Gas: Price per Gallon	\$2.56	\$3.20	\$1.79	-20.2%	Sep-19									
Spot Oil	\$54.81	\$93.21	\$30.32	-41.2%	Aug-19									
Case-Shiller Home Price Index	216.1	216.1	170.6	26.7%*	Jul-19									
Medical Care CPI	502.3	502.3	437.5	14.8%*	Sep-19									

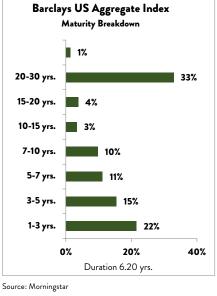
*% Off Low

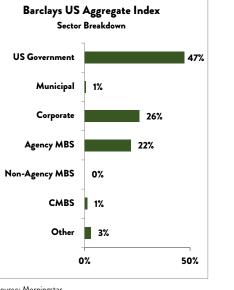
3Q2019 Bond Market Data

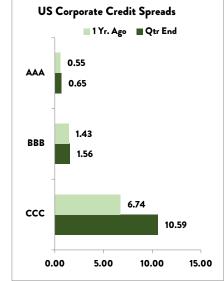
Index	QTR	YTD	1 yr.	3 yrs.	5 yrs.	10 yrs.
90-Day T-Bill	0.58%	1.84%	2.35%	1.44%	0.90%	0.49%
Barclays US Aggregate	2.27%	8.52%	10.30%	2.92%	3.38%	3.75%
Barclays Short US Treasury	0.56%	1.95%	2.56%	1.57%	1.05%	0.62%
Barclays Int. US Treasury	1.18%	5.22%	7.58%	1.80%	2.19%	2.39%
Barclays Long US Treasury	7.92%	19.77%	24.79%	4.07%	6.77%	6.87%
Barclays US TIPS	1.35%	7.58%	7.13%	2.21%	2.45%	3.46%
Barclays US Credit	2.98%	12.61%	12.63%	4.33%	4.54%	5.32%
Barclays US Mortgage-Backed	1.37%	5.60%	7.80%	2.32%	2.80%	3.14%
Barclays US Asset-Backed	0.92%	4.13%	5.42%	2.24%	2.25%	2.82%
Barclays US 20-Yr Municipal	2.29%	8.59%	10.58%	4.04%	4.71%	5.24%
Barclays US High Yield	1.33%	11.41%	6.36%	6.07%	5.37%	7.94%
Barclays Global	0.71%	6.32%	7.60%	1.59%	1.99%	2.34%
Barclays International	-0.58%	4.38%	5.34%	0.43%	0.87%	1.27%
Barclays Emerging Market	1.28%	10.79%	10.60%	4.42%	5.04%	6.66%











Source: Morningstar

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Source: Federal Reserve / Bank of America

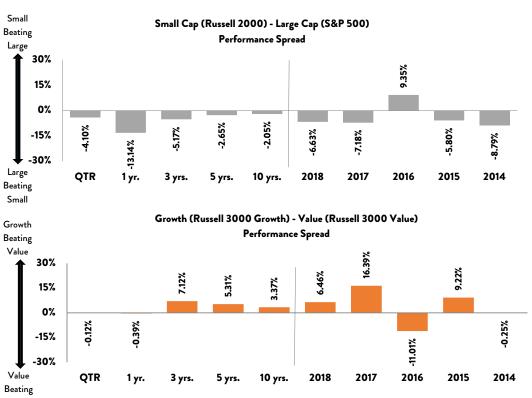
3Q2019 US Equity Market Data

Sectors Weights/Returns (ranked by quarter performance	Sectors Weig	nts/Returns	(ranked b	v quarter	performance
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10% Health Care -4.13% 10.49% -11.53% 2% Communication Services -4.25% 12.00% 0.84% 2% Energy -22.95% -22.68% -54.90% Wgt. Sector QTR YTD 1 yr. 2% Utilities 6.58% 22.90% 15.97% 7% Real Estate 6.47% 23.50% 9.71% 14% Information Technology 3.31% 24.97% 2.89% 4% Consumer Staples 2.14% 7.72% -7.72% 14% Industrials 0.57% 20.86% -7.33% 18% Financials -0.56% 11.74% -4.12% 2% Communication Services -1.40% 2.87% -18.80% 5% Materials -2.85% 12.23% -17.47%		17%	Financials	1.20%	20.28%	1.31%
10% Health Care -4.13% 10.49% -11.53% 2% Communication Services -4.25% 12.00% 0.84% 2% Energy -22.95% -22.68% -54.90% Wgt. Sector QTR YTD 1 yr. 2% Utilities 6.58% 22.90% 15.97% 7% Real Estate 6.47% 23.50% 9.71% 14% Information Technology 3.31% 24.97% 2.89% 4% Consumer Staples 2.14% 7.72% -7.72% 14% Industrials 0.57% 20.86% -7.33% 18% Financials -0.56% 11.74% -4.12% 2% Communication Services -1.40% 2.87% -18.80% 5% Materials -2.85% 12.23% -17.47%	kP Midcap 400	15%	Information Technology	1.08%	28.47%	6.82%
10% Health Care -4.13% 10.49% -11.53% 2% Communication Services -4.25% 12.00% 0.84% 2% Energy -22.95% -22.68% -54.90% Wgt. Sector QTR YTD 1 yr. 2% Utilities 6.58% 22.90% 15.97% 7% Real Estate 6.47% 23.50% 9.71% 14% Information Technology 3.31% 24.97% 2.89% 4% Consumer Staples 2.14% 7.72% -7.72% 14% Industrials 0.57% 20.86% -7.33% 18% Financials -0.56% 11.74% -4.12% 2% Communication Services -1.40% 2.87% -18.80% 5% Materials -2.85% 12.23% -17.47%		12%	Consumer Discretionary	0.94%	17.45%	-3.87%
10% Health Care -4.13% 10.49% -11.53% 2% Communication Services -4.25% 12.00% 0.84% 2% Energy -22.95% -22.68% -54.90% Wgt. Sector QTR YTD 1 yr. 2% Utilities 6.58% 22.90% 15.97% 7% Real Estate 6.47% 23.50% 9.71% 14% Information Technology 3.31% 24.97% 2.89% 4% Consumer Staples 2.14% 7.72% -7.72% 14% Industrials 0.57% 20.86% -7.33% 18% Financials -0.56% 11.74% -4.12% 2% Communication Services -1.40% 2.87% -18.80% 5% Materials -2.85% 12.23% -17.47%		16%	Industrials	-0.71%	23.20%	0.31%
10% Health Care -4.13% 10.49% -11.53% 2% Communication Services -4.25% 12.00% 0.84% 2% Energy -22.95% -22.68% -54.90% Wgt. Sector QTR YTD 1 yr. 2% Utilities 6.58% 22.90% 15.97% 7% Real Estate 6.47% 23.50% 9.71% 14% Information Technology 3.31% 24.97% 2.89% 4% Consumer Staples 2.14% 7.72% -7.72% 14% Industrials 0.57% 20.86% -7.33% 18% Financials -0.56% 11.74% -4.12% 2% Communication Services -1.40% 2.87% -18.80% 5% Materials -2.85% 12.23% -17.47%	8 2 2 2	6%	Materials	-2.84%	13.08%	-8.97%
View -22.95% -22.68% -54.90% Wgt. Sector QTR YTD 1 yr. 2% Utilities 6.58% 22.90% 15.97% 7% Real Estate 6.47% 23.50% 9.71% 14% Information Technology 3.31% 24.97% 2.89% 4% Consumer Staples 2.14% 7.72% -7.72% 14% Industrials 0.57% 20.86% -7.33% 18% Financials -0.56% 11.74% -4.12% 2% Communication Services -1.40% 2.87% -18.80% 5% Materials -2.85% 12.23% -17.47%	•	10%	Health Care	-4.13%	10.49%	-11.53%
Wgt. Sector QTR YTD 1 yr. 2% Utilities 6.58% 22.90% 15.97% 7% Real Estate 6.47% 23.50% 9.71% 14% Information Technology 3.31% 24.97% 2.89% 4% Consumer Staples 2.14% 7.72% -7.72% 14% Industrials 0.57% 20.86% -7.33% 18% Industrials -0.56% 11.74% -4.12% 2% Communication Services -1.40% 2.87% -18.80% 5% Materials -2.85% 12.23% -17.47%		2%	Communication Services	-4.25%	12.00%	0.84%
Violation Communication Services -1.40% 2.87% 15.97% 2% Utilities 6.58% 22.90% 15.97% 7% Real Estate 6.47% 23.50% 9.71% 14% Information Technology 3.31% 24.97% 2.89% 4% Consumer Staples 2.14% 7.72% -7.72% 14% Consumer Discretionary 1.27% 10.11% -11.40% 18% Industrials 0.57% 20.86% -7.33% 18% Financials -0.56% 11.74% -4.12% 2% Communication Services -1.40% 2.87% -18.80% 5% Materials -2.85% 12.23% -17.47%			Energy		-22.68%	-54.90%
7% Real Estate 6.47% 23.50% 9.71% 14% Information Technology 3.31% 24.97% 2.89% 4% Consumer Staples 2.14% 7.72% -7.72% 14% Consumer Discretionary 1.27% 10.11% -11.40% 18% Industrials 0.57% 20.86% -7.33% 18% Financials -0.56% 11.74% -4.12% 2% Communication Services -1.40% 2.87% -18.80% 5% Materials -2.85% 12.23% -17.47%		Wgt.	Sector	QTR	YTD	1 yr.
Information Technology 3.31% 24.97% 2.89% 4% Consumer Staples 2.14% 7.72% -7.72% 14% Consumer Staples 2.14% 7.72% -7.72% 14% Consumer Discretionary 1.27% 10.11% -11.40% 18% Industrials 0.57% 20.86% -7.33% 18% Financials -0.56% 11.74% -4.12% 2% Communication Services -1.40% 2.87% -18.80% 5% Materials -2.85% 12.23% -17.47%		2%	Utilities	6.58%	22.90%	15.97%
5% Materials -2.85% 12.23% -17.47%	Xa	7%	Real Estate	6.47%	23.50%	9.71%
5% Materials -2.85% 12.23% -17.47%	pd	14%	Information Technology	3.31%	24.97%	2.89%
5% Materials -2.85% 12.23% -17.47%	8	4%	Consumer Staples	2.14%	7.72%	-7.72%
5% Materials -2.85% 12.23% -17.47%	ap 6	14%	Consumer Discretionary	1.27%	10.11%	-11.40%
5% Materials -2.85% 12.23% -17.47%	allc	18%	Industrials	0.57%	20.86%	-7.33%
5% Materials -2.85% 12.23% -17.47%	Sm	18%	Financials	-0.56%	11.74%	-4.12%
5% Materials -2.85% 12.23% -17.47%	<u>8</u> Р		Communication Services	-1.40%	2.87%	-18.80%
	w.	5%	Materials	-2.85%	12.23%	-17.47%
		12%	Health Care	-3.76%	5.44%	-18.89%
4% Energy -22.26% -19.97% -56.62%		4%	Energy	-22.26%	-19.97%	-56.62%

Index	Performance	Data
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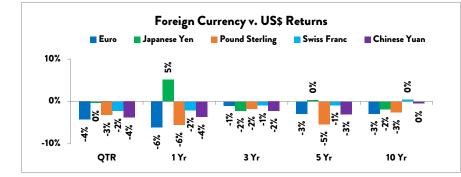
					Annualized	
Index	QTR	YTD	1 yr.	3 yrs.	5 yrs.	10 yrs.
S&P 500	1.70%	20.55%	4.25%	13.39%	10.84%	13.24%
Russell 1000 Value	1.36%	17.81%	4.00%	9.43%	7.79%	11.46%
Russell 1000 Growth	1.49%	23.30%	3.71%	16.89%	13.39%	14.94%
Russell Mid Cap	0.48%	21.93%	3.19%	10.69%	9.10%	13.07%
Russell Mid Cap Value	1.22%	19.47%	1.60%	7.82%	7.55%	12.29%
Russell Mid Cap Growth	-0.67%	25.23%	5.20%	14.50%	11.12%	14.08%
Russell 2000	-2.40%	14.18%	-8.89%	8.23%	8.19%	11.19%
Russell 2000 Value	-0.57%	12.82%	-8.24%	6.54%	7.17%	10.06%
Russell 2000 Growth	-4.17%	15.34%	-9.63%	9.79%	9.08%	12.25%
Russell 3000	1.16%	20.09%	2.92%	12.83%	10.44%	13.08%
DJ US Select REIT	6.83%	24.64%	16.41%	6.48%	9.70%	12.69%



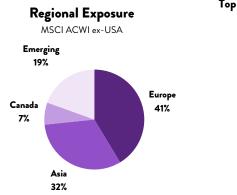
Growth

3Q2019 International Market Data

Index Performance Data (net)													
Index (US\$)	QTR	YTD	1 yr.	3 yrs.	5 yrs.	10 yrs.							
MSCI ACWI ex-US	-1.80%	11.56%	-1.23%	6.33%	2.90%	4.45%							
MSCI EAFE	-1.07%	12.80%	-1.34%	6.48%	3.27%	4.90%							
Europe	-1.80%	13.72%	- 0.75%	6.57%	2.38%	4.61%							
United Kingdom	-2.49%	10.09%	-2.88%	4.63%	0.44%	4.76%							
Germany	-4.03%	9.90%	-7.11%	3.48%	1.87%	4.42%							
France	-1.72%	15.87%	-1.57%	10.23%	5.08%	4.35%							
Pacific	0.23%	11.43%	-2.17%	6.54%	5.11%	5.61%							
Japan	3.13%	11.12%	-4.69%	6.22%	5.61%	5.51%							
Hong Kong	-11.94%	2.82%	-1.84%	5.51%	6.24%	7.74%							
Australia	-1.39%	17.86%	6.06%	7.80%	3.77%	5.07%							
Canada	0.45%	21.55%	2.96%	6.45%	1.00%	3.61%							
MSCI EM	-4.25%	5.89%	-2.02%	5.97%	2.33%	3.37%							
MSCI EM Latin America	-5.61%	6.32%	6.70%	6.80%	-0.78%	-0.48%							
MSCI EM Asia	-3.41%	5.98%	-3.87%	6.33%	4.09%	5.20%							
MSCI EM Eur/Mid East	-4.13%	9.99%	5.25%	7.95%	-0.42%	0.19%							
MSCI ACWI Value ex-US	-2.80%	6.94%	-4.51%	5.24%	0.89%	3.05%							
MSCI ACWI Growth ex-US	-0.85%	16.21%	2.03%	7.37%	4.86%	5.82%							
MSCI ACWI Sm Cap ex-US	-1.19%	10.28%	-5.63%	4.64%	3.98%	6.13%							

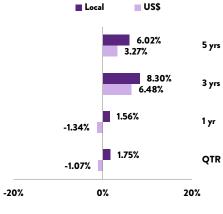


Exchange Rates	QTR	2Q19	1Q19	4Q18	3Q18	2Q18
Japanese Yen	108.11	107.84	110.68	109.70	113.48	110.71
Euro	0.92	0.88	0.89	0.87	0.86	0.86
British Pound	0.81	0.79	0.77	0.78	0.77	0.76
Swiss Franc	1.00	0.98	1.00	0.98	0.98	0.99
Chinese Yuan	7.15	6.87	6.71	6.88	6.87	6.62



Top 10 Countries (MSCI AC World	ex-USA)
Japan	17%
UK	11%
China	9%
France	8%
Canada	7%
Switzerland	6%
Germany	6%
Australia	5%
South Korea	3%
Taiwan	3%

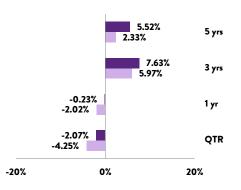
MSCI EAFE Index Return



MSCI Emerging Index Return

US\$

Local







Small

Beating

Large

Large

Beating

Small

Historical Market Returns

Ranked by Performance

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	YTD	3Q19
Emerging Markets 25.55%	Emerging Markets 34.00%	Emerging Markets 32.14%	Emerging Markets 39.42%	US Bonds 5.24%	Emerging Markets 78.51%	Small Cap 26.85%	Core Real Estate 14.96%	Emerging Markets 18.22%	Small Cap 38.82%	Large Cap 13.68%	Core Real Estate 13.95%	Small Cap 21.30%	Emerging Markets 37.28%	Core Real Estate 7.36%	Mid Cap 21.93%	US Bonds 2.27%
Intl 20.91%	Commod. 21.36%	Intl 26.65%	Intl 16.65%	Global Bonds 4.79%	High Yield 58.21%	Mid Cap 25.48%	TIPS 13.56%	Mid Cap 17.28%	Mid Cap 34.76%	Mid Cap 13.21%	Large Cap 1.38%	High Yield 17.12%	Intl 27.19%	Cash 1.69%	Large Cap 20.55%	Large Cap 1.70%
Mid Cap 20.22%	Core Real Estate 20.15%	Small Cap 18.37%	Commod. 16.23%	Cash 1.39%	Intl 41.45%	Emerging Markets 18.88%	US Bonds 7.84%	Intl 16.83%	Large Cap 32.39%	Core Real Estate 11.44%	US Bonds 0.55%	Mid Cap 13.79%	Large Cap 21.83%	US Bonds 0.01%	Small Cap 14.18%	TIPS 1.35%
Small Cap 18.33%	Intl 16.62%	Large Cap 15.79%	Core Real Estate 14.84%	TIPS -2.35%	Mid Cap 40.48%	Commod. 16.83%	Global Bonds 5.64%	Small Cap 16.35%	Intl 15.29%	US Bonds 5.97%	Cash 0.03%	Large Cap 11.95%	Mid Cap 18.52%	Global Bonds -1.20%	Global Balanced 12.84%	High Yield 1.33%
Global Balanced 12.18%	Mid Cap 12.65%	Core Real Estate 15.27%	TIPS 11.64%	Core Real Estate -10.70%	Small Cap 27.17%	Core Real Estate 15.26%	High Yield 4.98%	Large Cap 16.00%	Global Balanced 14.46%	Small Cap 4.89%	TIPS -1.43%	Commod. 11.76	Global Balanced 15.87%	TIPS -1.26%	Intl 11.56%	Core Real Estate 1.08%
Core Real Estate 12.00%	Large Cap 4.91%	Mid Cap 15.26%	Global Bonds 9.48%	Global Balanced -24.51%	Large Cap 26.46%	High Yield 15.12%	Large Cap 2.11%	High Yield 15.81%	Core Real Estate 12.95%	TIPS 3.64%	Global Balanced -1.45%	Emerging Markets 11.18%	Small Cap 14.65%	High Yield -2.08%	High Yield 11.41%	Global Bonds 0.71%
High Yield 11.13%	Small Cap 4.55%	Global Balanced 14.53%	Global Balanced 9.07%	High Yield -26.16%	Global Balanced 20.49%	Large Cap 15.06%	Cash 0.06%	Global Balanced 11.06%	High Yield 7.44%	Global Balanced 3.17%	Mid Cap -2.43%	Core Real Estate 7.76%	High Yield 7.50%	Large Cap -4.38%	US Bonds 8.52%	Global Balanced 0.60%
Large Cap 10.88%	Global Balanced 4.16%	High Yield 11.85%	US Bonds 6.97%	Small Cap -33.79%	Commod. 18.91%	Intl 11.15%	Global Balanced -0.97%	Core Real Estate 9.76%	Cash 0.07%	High Yield 2.45%	Global Bonds -3.15%	Global Balanced 5.38%	Global Bonds 7.39%	Global Balanced -5.30%	TIPS 7.58%	Cash 0.58%
Global Bonds 9.27%	Cash 3.25%	Global Bonds 6.64%	Mid Cap 5.60%	Commod. -35.65%	TIPS 11.41%	Global Balanced 9.40%	Mid Cap -1.55%	TIPS 6.98%	US Bonds -2.02%	Global Bonds 0.59%	Small Cap 4.41%	TIPS 4.68%	Core Real Estate 6.66%	Mid Cap -9.06%	Global Bonds 6.32%	Mid Cap 0.48%
Commod. 9.15%	TIPS 2.84%	Cash 4.85%	Large Cap 5.49%	Large Cap -37.00%	Global Bonds 6.93%	US Bonds 6.54%	Small Cap -4.18%	Global Bonds 4.32%	Global Bonds -2.60%	Cash 0.04%	High Yield -4.46%	Intl 4.50%	US Bonds 3.54%	Small Cap 11.01%	Emerging Markets 5.89%	Intl -1.80%
TIPS 8.46%	High Yield 2.74%	US Bonds 4.33%	Cash 4.44%	Mid Cap -41.46%	US Bonds 5.93%	TIPS 6.31%	Commod. -13.32%	US Bonds 4.21%	Emerging Markets -2.60%	Emerging Markets -2.18%	Intl 5.66%	US Bonds 2.65%	TIPS 3.01%	Commod. -11.25%	Commod. 3.13%	Commod. -1.84%
US Bonds 4.34%	US Bonds 2.43%	Commod. 2.07%	High Yield 1.87%	Intl 45.53%	Cash 0.16%	Global Bonds 5.54%	Intl -13.71%	Cash 0.08%	TIPS -8.61%	Intl 3.86%	Emerging Markets -14.90%	Global Bonds 2.09%	Commod. 1.70%	Intl -14.20%	Core Real Estate 3.08%	Small Cap -2.40%
Cash 1.44%	Global Bonds -4.49%	TIPS 0.41%	Small Cap -1.57%	Emerging Markets -53.33%	Core Real Estate -30.40%	Cash 0.15%	Emerging Markets -18.42%	Commod. -1.06%	Commod. -9.52%	Commod. -17.00%	Commod. -24.60%	Cash 0.25%	Cash 0.71%	Emerging Markets -14.58%	Cash 1.84%	Emerging Markets -4.25%

Global Balanced is composed of 60% MSCI World Stock Index, 35% Barclays Global Aggregate Bond Index, and 5% US 90-Day T-Bills.

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Section 2

457 Deferred Compensation Plan

PLAN ASSET ALLOCATION

Third Quarter 2019

Fixed Income	Ticker	Assets	%	International	Ticker	Assets	%
Nationwide Fixed Fund	-	\$86,739,828	32.4%	Hartford Schroders Intl Multi-Cap Value SDR	SIDRX	\$5,137,910	1.9%
Fidelity US Bond Index	FXNAX	\$7,899,243	3.0%	Fidelity Total International Index	FTIHX	\$2,859,874	1.1%
Sterling Capital Total Return Bond R6	STRDX	\$10,275,292	3.8%	American Funds EuroPacific Growth R6	RERGX	\$10,257,808	3.8%
	Total	\$104,914,363	39.2%		Total	\$18,255,592	6.8%

Large Cap	Ticker	Assets	%	Asset Allocation	Ticker	Assets	%
DFA US Large Cap Value I	DFLVX	\$9,411,934	3.5%	Vanguard Target Retirement Income Inv	VTINX	\$2,423,195	0.9%
Fidelity 500 Index	FXAIX	\$28,836,418	10.8%	Vanguard Target Retirement 2015 Inv	VTXVX	\$2,502,157	0.9%
T. Rowe Price Instl Large Cap Growth	TRLGX	\$11,094,532	4.1%	Vanguard Target Retirement 2020 Inv	VTWNX	\$676,882	0.3%
	Total	\$49,342,885	18.4%	Vanguard Target Retirement 2025 Inv	VTTVX	\$16,160,240	6.0%
				Vanguard Target Retirement 2030 Inv	VTHRX	\$390,464	0.1%
Mid Cap	Ticker	Assets	%	Vanguard Target Retirement 2035 Inv	VTTHX	\$10,232,940	3.8%
Wells Fargo Special Mid Cap Value R6	WFPRX	\$17,655,410	6.6%	Vanguard Target Retirement 2040 Inv	VFORX	\$33,919	0.0%
Fidelity Mid Cap Index	FSMDX	\$6,432,569	2.4%	Vanguard Target Retirement 2045 Inv	VTIVX	\$3,379,955	1.3%
MFS Mid Cap Growth R6	ОТСКХ	\$5,759,811	2.2%	Vanguard Target Retirement 2050 Inv	VFIFX	\$206,256	0.1%
	Total	\$29,847,790	11.2%	Vanguard Target Retirement 2055 Inv	VFFVX	\$1,328,179	0.5%
				Vanguard Target Retirement 2060 Inv	VTTSX	\$8,121,196	3.0%
Small Cap	Ticker	Assets	%		Total	\$45,455,383	17.0%
DFA US Targeted Value I	DFFVX	\$2,338,692	0.9%				
Fidelity Small Cap Index	FSSNX	\$3,460,345	1.3%	Miscellaneous	Ticker	Assets	%
Hood River Small Cap Growth Ret	HRSIX	\$3,305,854	1.2%	Self-Directed Option	-	\$5,828,264	2.2%
	Total	\$9,104,892	3.4%	Participant Loans	-	\$4,841,193	1.8%
					Total	\$10,669,456	4.0%

TOTAL PLAN ASSETS

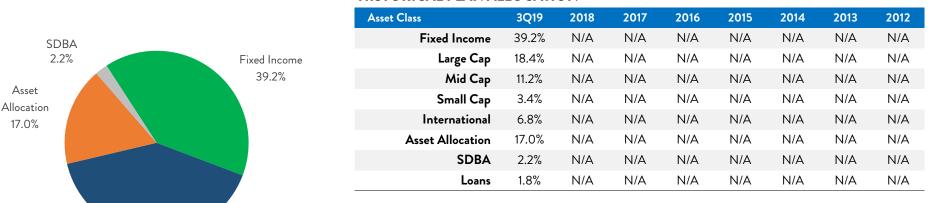
\$267,590,362

457 Deferred Compensation Plan

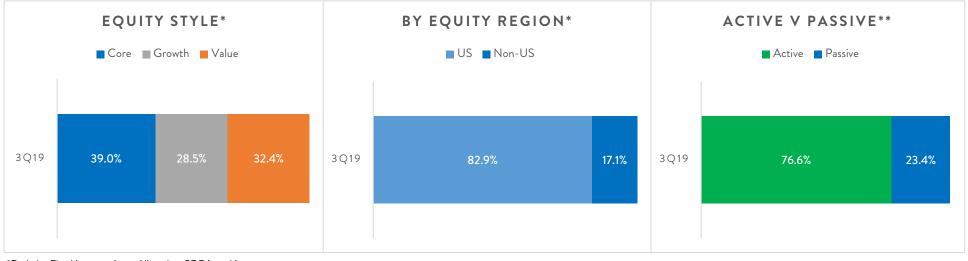
Equity 39.8%

PLAN ASSET ALLOCATION

Third Quarter 2019



HISTORICAL PLAN ALLOCATION



*Excludes Fixed Income, Asset Allocation, SDBA, and Loan assets

**Excludes Asset Allocation, SDBA, and Loan assets

Section 3

INVESTMENT POLICY STATEMENT COMPLIANCE REPORT

457 Deferred Compensation Plan

			Investment Poli	cy Status
	Performance	Qualitative	On Watch	
Key: 🖻 Pass / 🗕 Fail	Factors	Factors	Date Initiated	Notes
Nationwide Fixed Fund	P	P	-	
Fidelity US Bond Index	P	P	-	
Sterling Capital Total Return Bond R6	P	P	-	
DFA US Large Cap Value I	•	P	-	Trailing Benchmark and Peer Group for 5 year period.
Fidelity 500 Index	P	P	-	
T. Rowe Price Instl Large Cap Growth	P	P	-	
Wells Fargo Special Mid Cap Value R6	P	P	-	
Fidelity Mid Cap Index	P	P	-	
MFS Mid Cap Growth R6	P	P	-	
DFA US Targeted Value I	P	P	-	
Fidelity Small Cap Index	P	P	-	
Hood River Small Cap Growth Ret	P	P	-	
Hartford Schroders Intl Multi-Cap Value SDR	P	P	-	
Fidelity Total International Index	P	P	-	
American Funds EuroPacific Growth R6	P	P	-	
Vanguard Target Retirement Income Inv	P	P	-	
Vanguard Target Retirement 2015 Inv	P	P	-	
Vanguard Target Retirement 2020 Inv	P	P	-	
Vanguard Target Retirement 2025 Inv	P	P	-	
Vanguard Target Retirement 2030 Inv	P	P	-	
Vanguard Target Retirement 2035 Inv	P	P	-	
Vanguard Target Retirement 2040 Inv	P	P	-	
Vanguard Target Retirement 2045 Inv	P	P	-	
Vanguard Target Retirement 2050 Inv	P	P	-	
Vanguard Target Retirement 2055 Inv	P	P	-	
Vanguard Target Retirement 2060 Inv	P	P	-	

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PERFORMANCE REVIEW

					Annualized	1						
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2018	2017	2016	2015	2014	2013
Nationwide Fixed Fund	0.56											
5 Yr Constant Maturity US Treasury Yield	0.41	1.55	2.27	2.20	1.91	1.68	2.75	1.91	1.44	1.53	1.64	1.16
+/- Index	0.15	-	-	-	-	-	-	-	-	-	-	-
US Stable Value	40	-	-	-	-	-	-	-	-	-	-	-
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2018	2017	2016	2015	2014	2013
Fidelity US Bond Index	2.27	8.42	10.26	2.82	3.33	3.68	0.01	3.50	2.52	0.63	5.99	2.19
BBgBarc Capital US Aggregate Bond Index	2.27	8.52	10.30	2.92	3.38	3.75	0.01	3.54	2.65	0.55	5.97	-2.02
+/- Index	0.00	(0.10)	(0.04)	(0.10)	(0.05)	(0.07)	0.00	(0.04)	(0.13)	0.08	0.02	(0.17)
US Fund Intermediate Core Bond	31	50	28	42	26	50	29	57	66	18	26	69
				a) (-) (
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2018	2017	2016	2015	2014	2013
Sterling Capital Total Return Bond R6	2.19	9.22	10.38	3.45	3.74	4.40	0.27	4.33	3.75	0.54	5.99	0.97
BBgBarc Capital US Aggregate Bond Index	2.27	8.52	10.30	2.92	3.38	3.75	0.01	3.54	2.65	0.55	5.97	-2.02
+/- Index	(0.08)	0.70	0.08	0.53	0.37	0.65	(0.28)	0.79	1.10	(0.01)	0.02	1.05
US Fund Intermediate Core Bond	49	13	18	6	6	13	42	7	7	28	26	11
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2018	2017	2016	2015	2014	2013
DFA US Large Cap Value I	0.71	15.03	1.91	9.51	7.33	12.19	11.65	18.97	18.89	3.49	10.07	40.32
Russell 1000 Value Index	1.36	17.81	4.00	9.43	7.79	11.46	-8.27	13.66	17.34	-3.83	13.45	32.53
+/- Index	(0.65)	(2.78)	(5.91)	0.08	(0.46)	0.73	(3.38)	5.30	1.55	0.33	(3.39)	7.80
US Fund Large Value	76	74	82	52	51	13	83	20	14	46	60	3
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2018	2017	2016	2015	2014	2013
Fidelity 500 Index	1.69	20.55	4.24	13.38	10.83	13.22	4.40	21.81	11.97	1.38	13.66	32.37
S&P 500 Index	1.70	20.55	4.25	13.39	10.84	13.24	-4.38	21.83	11.96	1.38	13.69	32.39
+/- Index	0.00	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)	0.01	0.00	(0.03)	(0.01)
US Fund Large Blend	41	30	33	18	13	8	25	28	26	20	18	41

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PERFORMANCE REVIEW

				,	Annualized	1						
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2018	2017	2016	2015	2014	2013
T. Rowe Price Instl Large Cap Growth	1.11	16.81	1.80	19.56	14.74	15.87	4.32	37.82	2.85	10.08	8.72	44.44
Russell 1000 Growth Index	1.49	23.30	3.71	16.89	13.39	14.94	-1.51	30.21	7.08	5.67	13.05	33.48
+/- Index	(2.60)	(6.49)	(1.91)	2.67	1.34	0.93	5.83	7.61	(4.22)	4.41	(4.33)	10.95
US Fund Large Growth	71	87	53	5	5	5	7	3	52	7	66	3
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2018	2017	2016	2015	2014	2013
Wells Fargo Special Mid Cap Value R6	2.62	25.53	8.28	9.29	8.87	13.10	13.02	11.27	21.68	2.65	12.12	39.13
Russell Mid Cap Value Index	1.22	19.47	1.60	7.82	7.55	12.29	-12.29	13.34	20.00	-4.78	14.75	33.46
+/- Index	1.39	6.06	6.68	1.48	1.32	0.81	(0.74)	(2.07)	1.69	2.13	(2.63)	5.68
US Fund Mid-Cap Value	14	1	2	14	9	3	50	71	20	24	25	16
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2018	2017	2016	2015	2014	2013
Fidelity Mid Cap Index	0.44	21.90	3.23	10.67	9.09		9.05	18.47	13.86	2.44	13.11	34.78
Russell Mid Cap Index	0.48	21.93	3.19	10.69	9.10	13.07	-9.06	18.52	13.80	-2.44	13.22	34.76
+/- Index	(0.04)	(0.03)	0.04	(0.03)	(0.01)	-	0.01	(0.05)	0.07	0.00	(0.10)	0.02
US Fund Mid-Cap Blend	44	17	23	21	16	-	29	24	59	27	7	45
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2018	2017	2016	2015	2014	2013
MFS Mid Cap Growth R6	0.14	29.65	9.23	17.90	13.94	14.97	1.21	26.39	4.75	4.60	8.95	37.27
Russell Mid Cap Growth Index	-0.67	25.23	5.20	14.50	11.12	14.08	-4.75	25.27	7.33	-0.20	11.90	35.74
+/- Index	0.53	4.42	4.02	3.40	2.82	0.89	5.96	1.12	(2.58)	4.80	(2.95)	1.53
US Fund Mid-Cap Growth	26	7	8	6	8	8	9	31	55	9	32	28
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2018	2017	2016	2015	2014	2013
DFA US Targeted Value I	1.19	11.86	10.51	5.42	5.10	10.49	15.78	9.59	26.86	5.72	2.94	43.03
Russell 2000 Value Index	-0.57	12.82	-8.24	6.54	7.17	10.06	-12.86	7.84	31.74	-7.47	4.22	34.52
+/- Index	(0.61)	(0.96)	(2.27)	(1.12)	(2.07)	0.43	(2.92)	1.75	(4.88)	1.75	(1.28)	8.50
US Fund Small Value	65	61	66	45	50	28	55	40	40	46	65	10

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PERFORMANCE REVIEW

				,	Annualized	d						
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2018	2017	2016	2015	2014	2013
Fidelity Small Cap Index	2.34	14.27	8.79	8.39	8.39		10.88	14.85	21.63	4.24	5.19	39.02
Russell 2000 Index	-2.40	14.18	-8.89	8.23	8.19	11.19	-11.01	14.65	21.31	-4.41	4.89	38.82
+/- Index	0.06	0.09	0.10	0.17	0.20	-	0.14	0.20	0.32	0.17	0.30	0.20
US Fund Small Blend	74	50	58	31	27	-	33	22	40	44	40	33
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2018	2017	2016	2015	2014	2013
Hood River Small Cap Growth Ret	8.54	13.11	14.34	9.38	9.67	13.34	6.78	20.78	13.50	0.80	8.56	43.94
Russell 2000 Growth Index	-4.17	15.34	-9.63	9.79	9.08	12.25	-9.31	22.17	11.32	-1.38	5.60	43.30
+/- Index	(4.37)	(2.23)	(4.71)	(0.41)	0.59	1.09	2.53	(1.38)	2.18	2.18	2.96	0.64
US Fund Small Growth	92	77	90	70	53	31	59	51	30	20	7	35
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2018	2017	2016	2015	2014	2013
Hartford Schroders Intl Multi Cap Value SDR	2.74	7.92	5.51	3.70	2.09	5.22	15.23	23.27	8.94	4.56	4.04	18.57
MSCI ACWI Ex-USA Value (Net) Index	-2.80	6.94	-4.51	5.24	0.89	3.05	-13.97	22.66	8.92	-10.06	-5.10	15.04
+/- Index	0.07	0.98	(1.00)	(1.54)	1.20	2.16	(1.26)	0.61	0.02	5.50	1.06	3.53
US Fund Foreign Large Value	81	62	56	67	20	11	43	41	13	66	26	73
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2018	2017	2016	2015	2014	2013
Fidelity Total International Index	1.68	11.43	1.62	5.94			14.38	27.63				
MSCI ACWI Ex-USA IMI (Net) Index	-1.72	11.39	-1.84	6.10	3.05	4.66	-14.76	27.81	4.41	-4.60	-3.89	15.82
+/- Index	0.04	0.04	0.23	(0.17)	-	-	0.37	(0.18)	-	-	-	-
US Fund Foreign Large Blend	65	67	43	44	-	-	49	22	-	-	-	-
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2018	2017	2016	2015	2014	2013
American Funds EuroPacific Growth R6	1.59	15.72	1.14	7.38	5.02	6.07	14.91	31.17	1.01	0.48	2.29	20.58
MSCI ACWI Ex-USA Growth (Net) Index	-0.85	16.21	2.03	7.37	4.86	5.82	-14.43	32.01	0.12	-1.25	-2.65	15.49
+/- Index	(0.74)	(0.49)	(0.89)	0.01	0.15	0.25	(0.48)	(0.84)	0.89	0.77	0.36	5.09
US Fund Foreign Large Growth	62	66	41	39	44	56	58	44	20	66	27	36

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					Annualized	1						
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2018	2017	2016	2015	2014	2013
Vanguard Target Retirement Income Inv	1.52	10.29	6.75	5.10	4.57	5.76	1.99	8.47	5.25	0.17	5.54	5.87
Vanguard Retirement Income Index	1.46	10.40	6.82	5.23	4.73	5.90	-1.98	8.67	5.35	0.12	5.76	6.03
+/- Index	0.06	(0.11)	(0.07)	(0.14)	(0.16)	(0.14)	(0.01)	(0.19)	(0.10)	(0.30)	(0.23)	(0.15)
US Fund Target-Date Retirement	26	52	21	39	23	34	21	62	41	7	19	56
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2018	2017	2016	2015	2014	2013
Vanguard Target Retirement 2015 Inv	1.38	11.26	6.08	6.18	5.33	7.26	2.97	11.50	6.16	0.46	6.56	13.00
Vanguard Retirement 2015 Index	1.35	11.36	6.17	6.35	5.51	7.40	-2.88	11.61	6.40	-0.22	6.77	13.27
+/- Index	0.03	(0.10)	(0.09)	(0.18)	(0.18)	(0.13)	(0.09)	(0.11)	(0.24)	(0.24)	(0.21)	(0.27)
US Fund Target-Date 2015	21	50	21	42	34	29	20	44	56	11	3	21
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2018	2017	2016	2015	2014	2013
Vanguard Target Retirement 2020 Inv	1.19	12.61	5.29	7.08	5.97	7.96	4.24	14.08	6.95	0.68	7.11	15.85
Vanguard Retirement 2020 Index	1.16	12.74	5.45	7.27	6.16	8.19	-4.14	14.22	7.17	-0.40	7.37	16.21
+/- Index	0.03	(0.13)	(0.16)	(0.18)	(0.19)	(0.23)	(0.10)	(0.14)	(0.22)	(0.28)	(0.26)	(0.36)
US Fund Target-Date 2020	36	30	38	17	5	9	42	17	29	23	1	18
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2018	2017	2016	2015	2014	2013
Vanguard Target Retirement 2025 Inv	1.10	13.70	4.89	7.77	6.39	8.48	5.15	15.94	7.48	0.85	7.17	18.14
Vanguard Retirement 2025 Index	1.07	13.83	5.03	7.99	6.58	8.71	-5.01	16.08	7.66	-0.58	7.45	18.52
+/- Index	0.03	(0.13)	(0.14)	(0.22)	(0.19)	(0.23)	(0.14)	(0.14)	(0.18)	(0.27)	(0.28)	(0.38)
US Fund Target-Date 2025	35	25	39	18	8	11	42	21	23	24	4	24
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2018	2017	2016	2015	2014	2013
Vanguard Target Retirement 2030 Inv	0.89	14.28	4.15	8.29	6.67	8.92	5.86	17.52	7.85	1.03	7.17	20.49
Vanguard Retirement 2030 Index	0.88	14.39	4.30	8.50	6.86	9.16	-5.74	17.65	8.11	-0.80	7.51	20.88
+/- Index	0.01	(0.11)	(0.16)	(0.21)	(0.19)	(0.23)	(0.12)	(0.13)	(0.26)	(0.23)	(0.34)	(0.39)
US Fund Target-Date 2030	36	38	44	31	21	16	37	34	32	31	5	25

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				/	Annualized	/						
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2018	2017	2016	2015	2014	2013
Vanguard Target Retirement 2035 Inv	0.70	14.77	3.37	8.78	6.92	9.35	6.58	19.12	8.26	1.26	7.24	22.82
Vanguard Retirement 2035 Index	0.68	14.96	3.57	9.00	7.13	9.58	-6.48	19.24	8.55	-1.02	7.57	23.27
+/- Index	0.02	(0.19)	(0.19)	(0.22)	(0.20)	(0.24)	(0.10)	(0.12)	(0.29)	(0.24)	(0.33)	(0.45)
US Fund Target-Date 2035	41	55	46	32	27	15	32	35	32	37	10	23
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2018	2017	2016	2015	2014	2013
Vanguard Target Retirement 2040 Inv	0.49	15.35	2.63	9.28	7.15	9.61	7.32	20.71	8.73	1.59	7.15	24.37
Vanguard Retirement 2040 Index	0.48	15.52	2.84	9.51	7.39	9.87	-7.22	20.87	8.98	-1.25	7.61	24.79
+/- Index	0.01	(0.17)	(0.21)	(0.24)	(0.24)	(0.27)	(0.11)	(0.16)	(0.25)	(0.34)	(0.46)	(0.42)
US Fund Target-Date 2040	43	48	46	24	26	16	37	25	27	43	12	16
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2018	2017	2016	2015	2014	2013
Vanguard Target Retirement 2045 Inv	0.26	15.69	2.06	9.41	7.23	9.66	7.90	21.42	8.87	1.57	7.16	24.37
Vanguard Retirement 2045 Index	0.31	15.91	2.31	9.66	7.48	9.92	-7.77	21.54	9.13	-1.25	7.61	24.79
+/- Index	(0.05)	(0.23)	(0.26)	(0.24)	(0.25)	(0.26)	(0.13)	(0.11)	(0.26)	(0.32)	(0.45)	(0.42)
US Fund Target-Date 2045	57	54	52	28	26	18	43	26	28	42	12	27
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2018	2017	2016	2015	2014	2013
Vanguard Target Retirement 2050 Inv	0.29	15.71	2.07	9.42	7.24	9.65	7.90	21.39	8.85	1.58	7.18	24.34
Vanguard Retirement 2050 Index	0.31	15.91	2.31	9.66	7.48	9.92	-7.77	21.54	9.13	-1.25	7.61	24.79
+/- Index	(0.02)	(0.20)	(0.25)	(0.24)	(0.25)	(0.27)	(0.13)	(0.14)	(0.28)	(0.32)	(0.43)	(0.45)
US Fund Target-Date 2050	44	53	45	35	27	20	37	38	29	45	16	30
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2018	2017	2016	2015	2014	2013
Vanguard Target Retirement 2055 Inv	0.27	15.69	2.09	9.41	7.21		7.89	21.38	8.88	1.72	7.19	24.33
Vanguard Retirement 2055 Index	0.31	15.91	2.31	9.66	7.48	-	-7.77	21.54	9.13	-1.25	7.61	24.79
+/- Index	(0.04)	(0.22)	(0.22)	(0.24)	(0.28)	-	(0.12)	(0.16)	(0.25)	(0.46)	(0.42)	(0.46)
US Fund Target-Date 2055	44	56	43	37	31	-	37	48	27	53	16	36

457 Deferred Compensation Plan

PERFORMANCE REVIEW

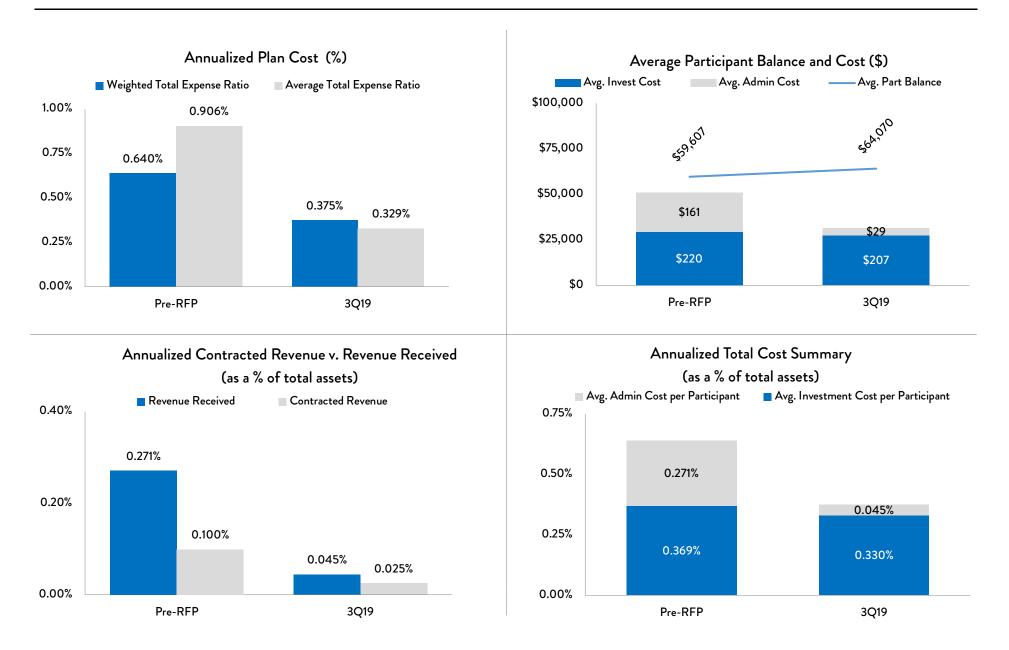
					Annualized	/						
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2018	2017	2016	2015	2014	2013
Vanguard Target Retirement 2060 Inv	0.28	15.68	2.07	9.41	7.20		7.87	21.36	8.84	1.68	7.16	24.35
Vanguard Retirement 2060 Index	0.31	15.91	2.31	9.66	7.48	-	-7.77	21.54	9.13	-1.25	7.61	24.79
+/- Index	(0.03)	(0.23)	(0.24)	(0.25)	(0.29)	-	(0.10)	(0.18)	(0.28)	(0.43)	(0.45)	(0.44)
US Fund Target-Date 2060+	41	67	44	48	60	-	34	53	21	46	8	1

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Section 4

457 Deferred Compensation Plan

PLAN FEE ANALYSIS



457 Deferred Compensation Plan

PLAN FEE ANALYSIS

Annualized

Third Quarter 2019

		Quarter End	Net Expense	Admin	Est. Total Invest.	Est. Total Admin
Fund	Ticker	Balance	Ratio	Fee	Cost	Cost
Nationwide Fixed Fund*	-	\$86,739,828	0.40%	0.045%	\$346,959	\$39,033
Fidelity US Bond Index	FXNAX	\$7,899,243	0.03%	0.045%	\$1,975	\$3,555
Sterling Capital Total Return Bond R6	STRDX	\$10,275,292	0.35%	0.045%	\$35,964	\$4,624
DFA US Large Cap Value I	DFLVX	\$9,411,934	0.27%	0.045%	\$25,412	\$4,235
Fidelity 500 Index	FXAIX	\$28,836,418	0.02%	0.045%	\$4,325	\$12,976
T. Rowe Price Instl Large Cap Growth	TRLGX	\$11,094,532	0.56%	0.045%	\$62,129	\$4,993
Wells Fargo Special Mid Cap Value R6	WFPRX	\$17,655,410	0.73%	0.045%	\$128,884	\$7,945
Fidelity Mid Cap Index	FSMDX	\$6,432,569	0.03%	0.045%	\$1,608	\$2,895
MFS Mid Cap Growth R6	ΟΤϹΚΧ	\$5,759,811	0.77%	0.045%	\$44,351	\$2,592
DFA US Targeted Value I	DFFVX	\$2,338,692	0.37%	0.045%	\$8,653	\$1,052
Fidelity Small Cap Index	FSSNX	\$3,460,345	0.03%	0.045%	\$865	\$1,557
Hood River Small Cap Growth Ret	HRSIX	\$3,305,854	1.00%	0.045%	\$33,059	\$1,488
Hartford Schroders Intl Multi-Cap Value SDR	SIDRX	\$5,137,910	0.77%	0.045%	\$39,562	\$2,312
Fidelity Total International Index	FTIHX	\$2,859,874	0.06%	0.045%	\$1,716	\$1,287
American Funds EuroPacific Growth R6	RERGX	\$10,257,808	0.49%	0.045%	\$50,263	\$4,616
Vanguard Target Retirement Income Inv	VTINX	\$2,423,195	0.12%	0.045%	\$2,908	\$1,090
Vanguard Target Retirement 2015 Inv	VTXVX	\$2,502,157	0.13%	0.045%	\$3,253	\$1,126
Vanguard Target Retirement 2020 Inv	VTWNX	\$676,882	0.13%	0.045%	\$880	\$305
Vanguard Target Retirement 2025 Inv	VTTVX	\$16,160,240	0.13%	0.045%	\$21,008	\$7,272
Vanguard Target Retirement 2030 Inv	VTHRX	\$390,464	0.14%	0.045%	\$547	\$176
Vanguard Target Retirement 2035 Inv	VTTHX	\$10,232,940	0.14%	0.045%	\$14,326	\$4,605
Vanguard Target Retirement 2040 Inv	VFORX	\$33,919	0.14%	0.045%	\$47	\$15
Vanguard Target Retirement 2045 Inv	VTIVX	\$3,379,955	0.15%	0.045%	\$5,070	\$1,521
Vanguard Target Retirement 2050 Inv	VFIFX	\$206,256	0.15%	0.045%	\$309	\$93
Vanguard Target Retirement 2055 Inv	VFFVX	\$1,328,179	0.15%	0.045%	\$1,992	\$598
Vanguard Target Retirement 2060 Inv	VTTSX	\$8,121,196	0.15%	0.045%	\$12,182	\$3,655
Self Directed Option	-	\$5,828,264	-	0.045%	-	\$2,623
TOTAL		\$262,749,169			\$848,248	\$118,237

Plan Administration Cost		Quarter	Annualized
	Plan Generated Revenue (est):	\$29,559	\$118,237
	Contracted Revenue (est):	\$16,422	\$65,687
	Net Excess/(Deficit) (est):	\$13,137	\$52,550
	Net Excess/(Deficit) (est):	\$13,137	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

*No explicit expense ratio stated for the fund. For reporting purposes, an expense of 0.40% is assumed.

Section 5

American Funds Europacific Growth R6

Ticker RERGX

Yield 1.5%

Total Assets \$163,824 mil

Mstar Category Foreign Large Growth

Benchmark 1: MSCI ACWI Ex USA Growth NR USD Benchmark 2: MSCI ACWI Ex USA NR USD

😵 Gold Morningstar Analyst Rating 09-18-19

Morningstar Pillars	
Process	
Performance	Positive
People	
Parent	Positive
Price	Positive

Norningstar Analyst Rating

Morningstar evaluates mutual funds based on five key pillars, which its analysts believe lead to funds that are more likely to outperform over the long term on a risk-adjusted basis.

Analyst Rating Spectrum

🕶 Gold

🕃 Silver

😳 Bronze

Neutral

Negative

Pillar Spectrum

					15 Yr Avg
19,031	55	1.70		6.65	10 Yr Avg
13,167	42	1.84	-0.03	5.66	5 Yr Avg
13,081	49	1.29		9.37	3 Yr Avg
11,520	44	3.93		15.20	1 Yr
10,266	62	0.69		2.66	6 Mo
10,265	58	-0.22		2.65	3 Mo
\$10,000	Cat	2	_	Return%	
Growth of	%Rank	+/- Bmark	+/- Bmark	Total	Trailing
		-1.59	3.8/	13.20	2019
-14.91	-12.59	-0.84	-2.82	1.03	2018
31.17	4.23	6.86	7.69	9.37	2017
1.01	-4.15	8.23	-0.32	-2.32	2016
-0.48	2.97	-9.81	1.12	5.97	2015
Total	4th Qtr	3rd Otr	2nd Qtr	1st Otr	
			31-19	ance 10-	Performance 10-31-19
Neutral	0	itive	Negative		Positive

Tax Analysis 3 Yr (estimated) 5 Yr (estimated) 10 Yr (estimated) Tax Adj Rtn% 1) 8.24 1) 4.68 2) 5.86 %Rank Cat 53 41 55 Tax-Cost Rat 1.03 0.92 0.74 %Rank Cat 73 71 66

Potential Capital Gain Exposure: 33% of assets

Morningstar's Take by Gregg Wolper 09-18-19

American Funds Europacific Growth's management remains strong, its overall strategy compelling, and its Despite the departure of a long-tenured manager, **Hating of Gold** price appealing. It retains its Morningstar Analyst

experience but his ability as well; colleagues have described him as particularly talented. That said, he was only one of nine named managers on this fund, undisclosed managers who run very small sleeves could be promoted to a named manager to fill the slot, Morningstar that one or more of the several are also experienced and long-tenured. Denning's sleeve made up about 7% of assets. Carl Kawaja, who departure is a loss, not only because of his vast firm on Sept. 9, 2019. A Capital Group spokesperson fund's advisor) for 37 years and was a named manager is the principal investment officer of this fund, told who run sleeves of the portfolio independently, and all but would provide no further information. Denning's on this fund for nearly 28 years, abruptly departed the said the departure resulted from a personnel decision, Mark Denning, who had been at Capital Group (this

Inception: Advisor: Address: Subadvisor: Web Address www.americanfunds.com 05-01-09 Capital Research and Management None Los Angeles, C 800-421-4225 uropacific Growth Fund CA 90071-1406 remain solid

Time Load-Adi Morningstar Morningstar Morningstar	Rating and Risk	5,450 12,168 14,518 21,221	26 31	1.61	0.50	0.00	0.74	. 54 40		1.78	0.40	0.90	- 9.76 -13.31 19.64	35.13	2009 2010 2011 2012						,			Rating +++	1
vetar Morn		30,294		1.76	0.50	0.00	0.61	40	19.08	1.49	5.29	5.09	20.58	49.03	2013					Ş	2				
innetar		35,207		1.85	0.49	0.00	0.82	27	-3.97	1.68	1.57	0.36	-2.29	47.09	2014						}				
Total S	Port	40,460	28	1.20	0.49	0.59	0.97	66	-2.53	2.05	5.18	0.77	-0.48	45.32	2015						S S	>			
Total Stocks: 305	folio An	45,195	30	1.27	0.50	0.00	0.74	20	-0.61	1.63	-3.48	0.89	1.01	45.04	2016					4	5				
	Portfolio Analysis 09-30-19	65,715	36	1.30	0.50	2.13	0.67	44	29.67	1.51	3.98	-0.84	31.17	56.14	2017						1	Z			
	9-30-19	59,766	29	1.18	0.49	2.24	0.80	58	-16.37	1.47	-0.71	-0.48	-14.91	44.99	2018							55		•	
		73,014	-						19.52		4.25	-0.73	19.70	53.77	10-19								8		
		Net Assets \$mil	Turnover Rate %	Income Ratio %	Expense Ratio %	Capital Gains \$	Income \$	Total Rtn % Rank Cat	Capital Return %	Income Return %	+/- Bmark 2	+/- Bmark 1	Total Return %	NAV	History	(within Category)	Performance Quartile	10.0	12.5			17.5 — Investment Values of	20.0 Growth of \$10,000	22 5	

	0.66		Ratio	Sharpe Ratio
	9.37			Mean
	12.25		Standard Deviation	Standa
96	95		red	R-Squared
1.02	1.03			Beta
-0.6	1.1			Alpha
Best Fit Index	Standard Index	Standa	Other Measures	Other N
			8.93	Incept
***	-Avg	Avg	6.65	10 Yr
***	Avg	Avg	5.66	5 Yr
***	Avg	Avg	9.37	3 Yr
			15.20	1 Yr
Risk-Adj Rating	Risk vs Cat	Rtn vs Cat	Return %	Period
Morningstar	Morningstar	Morningstar	Load-Adj	Time
			Rating and Risk	Ratin

impressive. assets. As a result, the management team remains and in the meantime Kawaja would run Denning's

influences its record. While the fund's trailing 10-year record through Aug. 31, 2019, is competitive against in the growth portion of the Morningstar Style Box for many years after landing in blend territory up until 2012 over that period, they top the foreign large-blend return of the foreign large-growth Morningstar Category Similarly, while its A shares slightly lag the average the core version of that index, the MSCI ACWI ex-US. the MSCI ACWI ex-US Growth Index, it far surpasses greatly outperforming those with core traits, that oriented foreign large-cap funds. With growth stocks or so. But it's not as aggressive as many growth-Overall, the fund's portfolio has consistently landed

average by 1.5 percentage points. Meanwhile, the fund's low cost is a notable somewhat, it still owns some mid-caps. Its prospects explain that low cost limits the fund's flexibility advantage. While the huge asset base that helps

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s herein does not constitute inve- need to be correct, complete or a o, the data and analyses or their	Income Distribution:	Expense Projections:	Actual Fees:	Management Fee:	Sales Fees:	Min Auto Inv Plan:	Minimum Purchase:
stment advice; is ccurate. Morning use.	Semi-Annually	3Yr:\$157 5Yr:\$274	Mgt:0.41% Dist:	0.69% mx.	No-load	\$50	\$250
; provided solely ystar is not respo	ally	5Yr:\$274	Dist:	0.69% mx./0.39% mn., 0.05%A		Add: \$50	Add: \$50
for informational Insible for any		10Yr:\$616		0.05%A			IRA: —

Value Measures Rel Category	++,	AVg \$mil:	Micro U.C		Mid 1	Large		Value Blend Growth Market Cap	Current Investment Style		A Recruit Holdings Co. Ltd	Tencent Holdings Ltd	Novartis AG	① SK Hynix Inc	Æ Keyence Corp	UVMH Moet Hennessy Louis	MercadoLibre Inc	Taiwan Semiconductor Manu	⊕ Vale SA ADR	Kotak Mahindra Bank Ltd	Daiichi Sankyo Co Ltd	Samsung Electronics Co Lt	ASML Holding NV	Alibaba Group Holding Ltd	HDFC Bank Ltd	① Reliance Industries Ltd	① Nintendo Co Ltd	AIA Group Ltd	Airbus SE	Capital Group Central Cas	Share change since 06-30-19	Total Stocks: 305
∍	=0	🕶 Sensitive	Ð	4		3 🚠 BasicMat		% Weightings	Sector		Industri	Technology	HIth Care	Technology	Technology	Cnsmr Cyc	Cnsmr Cyc	Technology	Basic Mat	Finan Svcs	HIth Care	Technology	Technology	Cnsmr Cyc	Finan Svcs	Energy	Technology	Finan Svcs	Industrl		Sector	
	S	ive 39.73			rCyc 12.80	Vlat 8.12	~	s Stocks	% of	current of the second sec	. lanan	China	Switzerland	South Korea	Japan	France	Brazil	Taiwan	Brazil	India	Japan	South Korea	Netherlands	China	India	India	Japan	Hong Kong	France	United States	Country	
_		1.00	0.65		1.13	1.45		s Bmark 1	f Rel		1 04	1.09	1.10	1.14	1.14	1.16	1.24	1.28	1.33	1.39	1.56	1.61	1.95	2.12	2.32	2.38	2.41	2.56	2.61	8.12	% Assets	

MCRNINGSTAR [®] Mutual Funds	Foreign (% of Stock) 98.3	Stocks 91.3 Other 0.0	Cash 8.6 Bonds 0.1	Composition - Net	Historical Erngs 17.88 1.33	Cash Flow 12.13 1.40	Sales 4.28 0.66	Book Value 5.49 0.65	Long-Term Erngs 9.33 0.90	Growth Measures % Rel Category	0 <u>2.14</u>	2 1 A		2.14		Value Measures Rel Category		44.148			NId		
Funds	3 China 9	India	Japan 1	Country Exposure	3 Asia X Japan 33	Japan	UK/W. Europe			y 🔽 Utilities	. Hlthcare	CnsmrDef	Defensive	_	₽	_		🕶 Sensitive	Real Est	FinanSvcs	_	BasicMat	
₿	_	UK			3 Other	Latn America	N. America			3.27	10.86	6.11	20.24	20.19	11.80	6.20	1.54	39.73	1.32	17.79	12.80	8.12	TO.00
				% Stock		ica	<u>لد</u> .	% Stock		2.89	0.85	0.37	0.67	1.44	0.79	2.25	0.19	1.00	0.65	1.64	1.13	1.45	c -

DFA US Large Cap Value

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Ticker DFLVX

Yield 1.9%

Total Assets \$25,662 mil

Large Value Mstar Category

Benchmark 1: Russell 1000 Value TR USD Benchmark 2: S&P 500 TR USD

4ai Morningstar Analyst Rating 12-17-18

Silver

Morningstar Pillars	
Process	
Performance	Positive
People	Positive
Parent	Positive
Price	Positive

Morningstar Analyst Rating

Morningstar evaluates mutual funds based on five key pillars, which its analysts believe lead to funds that are more likely to outperform over the long term on a risk-adjusted basis.

Analyst Rating Spectrum C Bronze

😋 Gold

🐺 Silver

Neutral

Negative

Pillar Spectrum

8.54 0.73 -0.51	J 12.92 0.96 -0.77	7.62 0.01 -3.16	10.92 0.41 -3.99	6.97 -4.24 -7.36		1.78 -0.15 -0.65	Return% 1 2 0	Trailing Total +/- Bmark +/- Bmark %Ra	2019 10.79 3.09 0.71 -	-2.35 0.37 5.71	3.53 2.21 4.61	0.13 3.97 5.14	-0.21 1.47 -9.36	2nd Qtr 3rd Qtr	Performance 10-31-19		O Nonativo
					-1.66 59		2 Ca	+/- Bmark %Rank	0.71 –		4.61 7.47						
	0 33,719				9 10,249	7 10,178	it \$10,000	k Growth of		2 -11.65		3 18.89	5 -3.49	tr Total		Neutid	Nin. tro

 Tax Analysis
 T

 3 Yr (estimated)
 5 Yr (estimated)
 10 Yr (estimated) 6.13 11.96 6 ³⁴ 6 1.60 1.38 0.85 %Rank Cat 53 40 26

Sharpe Ratio

0.68

0.73 %Rank Cat

Tax Adj Rtn%

Tax-Cost Rat

9.14

Potential Capital Gain Exposure: 1% of assets

portfolio of stocks with characteristics that have been Rating of Silver. deeper value tilts ups its risk compared with haul. This fund's low fee adds to its allure, but its associated with higher expected returns over the long DFA US Large Cap Value offers a broadly diversified Morningstar Category peers. It earns a Morningstar Morningstar's Take by Adam McCullough 12-17-18

names. by price/book. Next, the fund removes highly regulated exclusions and the portfolio still holds more than 300 from its most expensive holdings. But these are modest utility companies, REITs, and the least-profitable stocks 30% of the U.S. large-cap equity market, as measured This fund targets stocks. It starts with the cheapest

higher returns over the long run. This approach characteristics have historically been associated with capitalization, but overweights those that are cheaper, effectively diversifies firm-specific risk and reduces underweights those with the opposite traits. These smaller, and more profitable than its peers. It turnover because weightings move with market prices The fund ties each stock's weighting to its market

6,332	29	2.26	0.30	0.00	0.28	16	28.08	2.11	3.72	10.50	30.19	17.06	2009		\leq						Rating	Return Risk	Historic	
7,053	28	1.86	0.28	0.00	0.34	ω	18.18	1.99	5.11	4.67	20.17	20.12	2010				> \			Above Avg	***	Above Avg Hiah	Historical Profile	
7,279	14	1.63	0.28	0.00	0.35	69	-4.89	1.76	-5.25	-3.53	-3.14	19.14	2011			4	$\langle \rangle$			g		ġ	Ű	
8,585	10	1.99	0.27	0.00	0.43	_1	19.79	2.26	6.05	4.54	22.05	22.90	2012				$\langle \rangle$					-		
12,804	15	1.82	0.27	0.00	0.46	ω	38.32	2.00	7.94	7.80	40.32	31.62	2013											
	15	1.75	0.27	0.19	0.59	60	8.20	1.86	-3.62	-3.39	10.07	33.99	2014					Į	{}			-		
15,218	16	2.04	0.30	1.35	0.66	46	-5.45	1.96	-4.88	0.33	-3.49	30.82	2015					4	S			-		
19,361	15	2.24	0.37	0.82	0.67	14	16.72	2.18	6.93	1.55	18.89	35.09	2016					(Į	Į		-		
24,924 22,456	15						16.94						2017						Ì			-		
22,456		1.98	0.37	1.80	0.72	83	-13.49	1.84	-7.27	-3.38	-11.65	32.14	2018								Ś	-		
25,662		0.37	0.27	0.00	0.60	65	15.59	1.87	-5.70	-2.00	17.47	37.13	10-19							}	ł	[
Net Assets \$mil	Turnover Rate %	Income Ratio %	Expense Ratio %	Capital Gains \$	Income \$	Total Rtn % Rank Cat	Capital Return %	Income Return %	+/- Bmark 2	+/- Bmark 1	Total Return %	NAV	History	Performance Quartile (within Category)		. 10 0		rund 17 F. — Investment Values of	25.0 — Investment Values of	32.5 Growth of \$10,000	40.0		Investment Style Equity	

Katin	Kating and Kisk			
Time	Load-Adj	Morningstar	Morningstar	Morningstar
Period	Return %	Rtn vs Cat	Risk vs Cat	Risk-Adj Rating
1 Yr	6.97			
3 Yr	10.92	Avg	+ Avg	***
5 Yr	7.62	Avg	+ Avg	***
10 Yr	12.92	High	High	****
Incept	9.95			
Other M	Other Measures	Standa	Standard Index	Best Fit Index
Alpha			-4.9	-0.4
Beta			1.12	1.12
R-Squared	red		90	86
Standar	Standard Deviation		14.20	
Mean			10.92	

down by patiently adding to or reducing po by substituting stocks with similar charact The fund's portfolio managers keep transa

1.0% annually. November 2018, the fund topped the cate by 1.6% annualized and the Russell 1000 \ stayed the course. Over the past 15 years The strategy has paid off for those wh

performance during this time, but its systematic security selection across nearly every sector has contributed to its outperformance. sector allocation has detracted from relative tolerate its higher risk over the long haul. average. But the fund should reward inves March 2009, the fund lost more than its c bear market downturn from October 2007 potential returns, but also increases risk. I than the Russell 1000 Value Index increas Targeting smaller and deeper value-or

Income Distribution:	Expense Projections:	Actual Fees:	Management Fee:	Sales Fees:	Min Auto Inv Plan:	Minimum Purchase:	
Quarterly	3Yr:\$87	Mgt:0.35% Dist:	0.35%, 0.47%A	No-load	Ι	0\$	
	5Yr:\$152	6 Dist:	17%A		Add:	Add: —	
	10Yr:\$343					IRA: —	

Inception:

www.dimensional.com 02-19-93 Dimensional Fund Advisors LP None

Advisor: Web Address

Subadvisor:

Address:

Santa Monica CA 90401 888-576-1167

DFA Investment Dimensions Group Inc

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MORNINGSTAR®

Mutual Funds

8

0.01	0.00	0.10				10100	out		0
ω	60	46	14	20	83	65	Intal	Total Rtn % Rank Cat	k Cat
046	0 59	99.0	0.67	0.70	0.72	0.60	Income \$	np 🛠	
0.00	0.19	1.35	0.82	1.83	1.80	0.00	Capit	Capital Gains \$	
0.27	0.27	0.30	0.37	0.37	0.37	0.27	Expe	Expense Ratio %	6
1.82	1.75	2.04	2.24	2.03	1.98	0.37	Incor	Income Ratio %	
15	15	16	15	15			Turnc	Turnover Rate %	0
2,804	15,618	15,218	19,361	24,924	22,456	25,662	Net /	Net Assets \$mil	_
		Port	Portfolio Analysis		09-30-19				
Morn	Morningstar	Total S	Total Stocks: 325	00 01 10		Contor		AL 0.4	0/ Annato
t Risk-/	Risk-Adj Rating) AT	AT&T Inc	00-01-10		Comn	Comm Svcs	42.01	4.41
**	*	① Inte	Intel Corp			Technology	ology	22.47	3.91
**	*	① Che	Chevron Corp			Energy	<	10.04	3.37
」 ★ ★★★	*	0	Comcast Corp Class A	o Class A		Comn	Comm Svcs	33.48	3.34
		0	Exxon Mobil Corp			Energy	×	2.84	3.18
,	-		JPMorgan Chase &	ase & Co		Hinan Svcs	Svcs	31.35	3.04
Day	Dest I It IIIUex	€(Wells Faroo & Co	Co		Finan Svcs	Svcs	15.10	2.75
	1.12		Berkshire Hathaway Inc B	haway Inc	B	Finan Svcs	Svcs	4.11	2.10
	86	⊕ Bar	Bank of America Corporati	ica Corpor	ati	Finan Svcs	Svcs	28.86	1.90
			Citigroup Inc	2		Hinan Svcs	SVCS	40.74	1.6/
			Walmart Inc	c		Cnsmr Def	r Def	27.59	1.57
		① Chi	Charter Communications In	nunication	s In	Comn	Comm Svcs	64.18	1.31
) (+) P	The Walt Disney Co	iey Co		Unsmr Uyc	r Üyc	67.61	1.23
•	-	00	CVS Health Corp	orp		Hith Care	are	4.38	1 12
neitione and	e and	① () The	Thermo Fisher Scientific	r Scientific		HIth Care	are	35.19	1.06
teristics		⊕ Un	United Technologies Corp	ologies Cor	q	Industrl	н	36.91	1.03
ho have	e e	0	LonocoPhillips	0		Energy	~	-9.33	0.99
egory a	egory average	Currer	Current Investment Style	nt Style		Sector		% of	Rel
Value I	Value Index by	Value B	Value Blend Growth	Giant	t Cap % 42.0	Neightings		Stocks 36.42	Bmark 1 0.93
riented	riented stocks		biM e	Mid	34.5 23.4	Basic	BasicMat	4.30	1.13
ses the fund's	tund's		llem2				FinanSvcs	23.22	0.99
7 through	ah ii			Ava \$mil	l U.U	Real Est	Est	0.28	0.05
category	~ '			62,687	37		itive	43.25	1.35
stors th	stors that can	Value N	Value Measures	_	Rel Category	_	CommSivs	12 00	1 50
The fund's	nd's	Price/I	Price/Earnings	12.97	0.90	Industri	strl	10.95	1.18
ematic		Price/Book	Book	1.63	0.76	Technlgy	nlgy	9.35	1.46
tor has		Price/Sales	Price/Sales Price/Cash Flow	5.41	0.73	→ Defe	Defensive	20.33	0.70
		Divide	Dividend Yield %	2.62	0.91	Cnsr	CnsmrDef	5.89	1 00
		Growth	Growth Measures	%	Rel Category			0.30	0.04
			I nnn Tarm Ernne	130	1 0/				

		-)	
			12.49		Net Margin
			4.80		Return on Assets
tock)	(% of Stock)		12.97		Return on Equity
0.0	Other		%		Profitability
	 Bonds 		9 0.81	10.09	Historical Erngs
° 00.0	Storke			13.96	Cash Flow
0 0	Canh			6.25	Sales
		Composition - Net		4.90	Book Value
			4 1.04	8.64	Long-Term Erngs
0.04	0.30	Utilities	6 Rel Category	%	Growth Measures
1.09	14.14	 Hlthcare 		£.0.	
0.64	5.89	CnsmrDef	-	2 62	Dividend Vield %
U. /U	20.33			541	Price/Cash Flow
07.0	20 22		9 0.73	1.09	Price/Sales
1.46	9.35	Technlay	3 0.76	1.63	Price/Book
1.18	10.95		7 0.90	12.97	Price/Earnings
1.58	12.89	Energy	Rel Category		Value Measures
1.23	10.06	CommSrvs			
1.35	43.25	✓ Sensitive	62,687	62	
0.05	0.28	Real Est		2 3	
0.99	23.22	FinanSvcs	Small U.I	5 4	llen
1.47	8.62	CnsmrCyc	~	, Mid	IS P
1.13	4.30	🏝 BasicMat	e	6	iM s
0.93	36.42	℃yclical	Giant 42.0	. <u>G</u>	гэгде
Bmark 1	Stocks	Weightings	Market Cap %	Ma	Value Blend Growth
Rel	% of	Sector		t Style	Current Investment Style

DFA US Targeted Value I

Ticker DFFVX

Yield 1.3%

Total Assets \$10,788 mil

Mstar Category Small Value

Benchmark 1: Russell 2000 Value TR USD Benchmark 2: S&P 500 TR USD

Morningstar Analyst Rating 05-16-19

🐺 Silver

Morningstar Pillars	
Process	Positive
Performance	Positive
People	Positive
Parent	Positive
Price	Positive

Norningstar Analyst Rating

Morningstar evaluates mutual funds based on five key pillars, which its analysts believe lead to funds that are more likely to outperform over the long term on a risk-adjusted basis.

Analyst Rating Spectrum

😋 Gold

😇 Silver

😳 Bronze

Neutral

Negative

Pillar Spectrum

D Positive		D Nenative	tive	D	D Neutral
Performance 10-31-19	ance 10-3	81-19			
	1st Otr	2nd Otr	3rd Otr	4th Otr	Total
2015	3.91	0.05	-11.10	2.01	-5.72
2016	2.55	1.40	7.51	13.47	26.86
2017	0.25	-0.62	5.26	4.50	9.59
2018	-2.19	6.03	1.51	-20.00	-15.78
2019	12.14	0.95	-1.19		
Trailing	Total +	+/- Bmark	+/- Bmark	%Rank	Growth of
	Return%	_	2	Cat	\$10,000
3 Mo	-0.28	-1.95	-2.71	70	9,972
6 Mo	-3.24	-2.71	-7.39	64	9,676
1 Yr	0.88	-2.34	-13.45	64	10,088
3 Yr Avg	7.04	-1.56	-7.86	48	12,266
5 Yr Avg	4.80	-1.44	-5.98	44	12,639
10 Yr Avg	11.50	0.42	-2.20	25	29,699
15 Yr Avg	7.93	0.64	-1.12	25	31,434

Tax Analysis 3 Yr (estimated) 5 Yr (estimated) Potential Capital Gain Exposure: -3% of assets 10 Yr (estimated) Tax Adj Rtn% d) 5.56 d) 3.33 ed) 10.34 %Rank Cat 37 34 20 rt Tax-Cost Rat 7 1.38 4 1.40 2 1.04 %Rank Cat 43 39 37

Sharpe Ratio

0.36

Morningstar's Take by Adam McCullough 05-16-19

of the cost. This consideration warrants a downgrade of its Morningstar Analyst Rating to Silver from Gold. but there are many index funds available for a fraction DFA U.S. Targeted Value is a great option for exposure the past. This is still an attractive fund in its category, less competitive within its category than it had been in to mid- and small-value stocks, but the fund's fee is

and small-cap stocks after excluding those with poor profitability, highly regulated utility companies, and REITs. The fund's managers pursue stocks with these returns over the long haul. they have been associated with higher expected characteristics because academic research shows that The strategy targets the cheaper half of U.S. mid-

fund's profitability exclusions are modest, yielding a broadly diversified portfolio of more than 1,500 names fund's average turnover during the past decade through market capitalization to mitigate transaction costs. The and its efficient construction keeps turnover down. The This broad reach effectively diversifies firm-specific risk DFA weights the stocks that make the portfolio by

1,657	17	1.19	0.41	0.00	0.11	37	30.77	1.11	5.41	11.30	31.87	13.01	2009		<					naung	Risk	Historic Return	
2,537	20	0.69	0.38	0.03	0.11	24	28.17	0.84	13.95	4.51	29.01	16.63	2010			5	\mathbb{X}			Above Avg	Above Avg	Historical Profile Return Above Avg	
2,503	23	0.71	0.38	0.12	0.11	72	-6.98	0.69	-8.40	-0.79	-6.29	15.34	2011)		ġ	ũ	ġ	
3,087	20	1.03	0.38	0.98	0.25	23	17.53	1.66	3.18	1.14	19.19	17.01	2012				<pre>}</pre>) 1]
4,603	16	1.25	0.37	1.32	0.15	10	42.17	0.86	10.64	8.50	43.03	22.77	2013					Y.	ł]
5,581	10	0.90	0.37	1.01	0.22	65	1.99	0.95	-10.75	-1.28	2.94	22.15	2014					ł]
6,740	15	1.28	0.37	0.89	0.27	46	-6.94	1.22	-7.10	1.75	-5.72	19.75	2015					5	Ì]
9,227	28	1.24	0.37	0.78	0.24	40	25.65	1.22	14.90	-4.88	26.86	24.01	2016		_			٢	2]
10,710	23	1.13	0.37	1.09	0.30	40	8.35	1.24	-12.24	1.75	9.59	24.89	2017						ł	<pre> </pre>]
9,163	23	1.20	0.37	0.94	0.24	55	-16.77	0.99	-11.40	-2.92	-15.78	19.83	2018							ſ]
							12.52						10-19						~	}]
Net Assets \$mil	Turnover Rate %	Income Ratio %	Expense Ratio %	Capital Gains \$	Income \$	Total Rtn % Rank Cat	Capital Return %	Income Return %	+/- Bmark 2	+/- Bmark 1	Total Return %	NAV	History	Performance Quartile (within Category)		. 10.0		Fund	25.0 — Investment Values of	32.5 Growth of \$10,000	40.0	Equity	hundtmont Stule

^		
Morningstar	Morningstar	Morningstar
Rtn vs Cat	Risk vs Cat	Risk-Adj Rating
Avg	+Avg	***
Avg	+ Avg	***
+ Avg	+ Avg	****
Standa	ard Index	Best Fit Index
	-10.4	1.6
	1.33	1.05
	70	86
	19.14	
	7.04	
	Rating and Risk ime Load-Adj Momingstar Yr 0.88 Rtn vs Cat VYr 7.04 Avg YYr 4.80 Avg YYr 11.50 +Avg IO Yr 11.50 +Avg IO Yr 10.45 Standard Vhor Measures Standard Vpha Standard Valandard Deviation Valandard	Morningstar Rtn vs Cat Avg Avg + Avg + Avg + Avg + Avg 10.4 19.14 7.04

Morningstar's small-cap value category. The fund's traders contribute to lower transa 2018 measures about a quarter of the average fu

names into or out of the fund. This allows the tra wait for better prices because DFA often acts as buying names with poor recent performance. momentum as a reason not to trade, like holding liquidity provider in the market rather than a price To further enhance returns, the managers can us stock for another in the portfolio and patiently tra costs because they have the flexibility to substitu

During the past 15 years through April 2019, fund outpaced the small-value category average the Russell 2000 Value Index by 1.1 and 0.8 perc costs down. offers efficient exposure to cheaper and more prostocks than the Russell 2000 Value Index while k points annualized, respectively, with slightly more The fund's performance edge should persist becc

None	Dimensional Fund Advisors LP	02-23-00	www.dimensional.com	888-576-1167	Santa Monica CA 90401	DFA Investment Dimensions Group Inc	
Income Distribution:	Expense Projections:	Actual Fees:	Management Fee:	Sales Fees:	Min Auto Inv Plan:	Minimum Purchase:	
Quarterly	3Yr:\$119	Mgt:0.35% Dist:	0.35%, 0.47%A	No-load	Ι	0\$	
	5Yr:\$208	Dist:	7%A		Add:	Add:	
	10Yr:\$468					IRA: —	

Inception:

Advisor: Web Address

Subadvisor:

Address:

purposes, is not an orien to only sen a secondy, and is not warrantee to one controlection accurate, worningstants not responsible to any trading decisions, damages or losses resulting from, or related to, the data and analyses or their use.	19 Morningstar, All Rights Reserved. The data and analyses herein does not constitute investment advice; is provided solely for infor
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Return on Equity Return on Assets Net Margin

7.47 2.59 9.14 ~

MORNINGSTAR®

Mutual Funds

ً₿

\$468				keeping	rofitable	re risk.	centage	, uie	- +hp	g off on	e taker. se	 	aders to	action tute one ade		und in					86	1.05	1.6	et Eit Index)	+ *	*	Adj Rating		5,581	10	0.37	1.01	65	1.99	-10./5	-1.28	22.15 2.94	
Profitability Return on I Return on /	Cash Flow Historical I	Long-Term Book Value Sales	Growth	Price/(Price/Book	Price/E	Value N					Value BI	Curren	① Pro	Sar	⊕ Por	Tec			⊕ Per	Nev		⊕ AE(1) Pec		①① Pos) () Rel	Share c	Port	6,740	1.20	0.37	0.89	46	-6.94	-/.10 1 99	1.75	19.75 -5.72	
Profitability Return on Equity Return on Assets	Cash Flow Historical Erngs	Long-Term Erngs Book Value Sales	Growth Measures	Price/Cash Flow	Book	Price/Earnings	Value Measures			ews p	iMi 96	Blend Growth	Current Investment	Prosperity Bancshares Inc	Santander Consumer USA Ho	Owens-Corning Inc Popular Inc	Tech Data Corp	Assured Guaranty Lto PacWest Bancorp	Jabil Inc	Perrigo Co PLC	New York Community Bancor	Avnet Inc	AECOM	People's United Financial	Genesee & Wyoming Inc	Toll Brothers Inc Post Holdings Inc	Reliance Steel & Aluminum	Share change since 08-31-19 Arrow Electronics Inc	Portfolio Analysis 09-30-19	9,227	28	0.37	0.24 0.78	40	25.65	14.90	-4.88	24.01 26.86	
	4.18 8.32	11.13 2.10 3.13	1 % 76'I	4.60	1.13 0.59		_	Avg \$mil: 2.316		Small		Giant	ŝ	ncshares Ir	nsumer US	ng Inc	P.	orp	200+		nmunity B		dino 6 uno	ed Financia ding Corn	yoming Inc	Inc Inc	8 Alumin	08-31-19 nics Inc	alysis ₀₉	10,710	23	0.37	1.09	40	8.35	-12.24	1.75	24.89 9.59	:
% 7.47 2.59	1.17 0.50	1.10 -0.97 0.78	U.91 Rel Category	0.80	0.77	0.94	Rel Category	5, pmI:		54.6		t Cap %		ਨ	SA Ho						ancor			_	: Cla		пш		-30-19	9,163	23	0.37	0.24 0.94	55	-16.77	-11.40 n aa	-2.92	-15.78	:
		Com	●+	_	_				₽ Rea		_	Neighti	Sector	Finar	Finar	Basi	Tech	Finar	Tech	Hith Car	Finar	Tech	Industri	Finar	Industrl	Cnsr	Basi	Sector		10,659	.3/	0.37	0.00	63	12.52	-9.4/	-1.85	22.31 13.70	
		ition - Net	Hlthcare Utilities	Detensive CnsmrDef	Technlgy	Industrl	CommSrvs Energy	Sensitive	Real Est	CnsmrCyc	BasicMat	Jhtings Evolical		Finan Svcs	Finan Svcs	Basic Mat Finan Svrs	Technology	Finan Svcs	Technology	Hith Care	Hinan Svcs	Technology	strl	Finan Svcs Cnsmr Def	strl	Cnsmr Cyc Cnsmr Def	Basic Mat	ology		Net /	Turno	Expe	Capit	Total	Capit	-/+	+/-	NAV Total	
 Other Foreig (% of s 	CashStocksBonds		4.29 0.19	9.93 5.45	11.32	19.67	0.83 7 14	38.96	0.19 م 0.19	15.46	7.47	Stocks	, % of	12.76	46.11	41.34	48.51	23.98 16.56	49.50	40.10 38.40	29.22	11.27	50.98	16.96 25.38	50.00	22.11 15.45	65.36	YTD Ret % 14.98		Net Assets \$mil	Turnover Rate %	Expense Ratio %	Capital Gains \$	Total Rtn % Rank Cat	Capital Return %	+/- Bmark 2	/- Bmark 1	NAV Total Return %	
Toc	(0		0.82 0.03	0.69 1.93	1.36	1.43	0.32	1.29	0.01	1.55	2.10	Bmark 1 0.92	, Rel	0.42	0.43	0.44	0.45	0.46	0.48	0.50	0.51	0.52	0.53	0.55	0.56	0.58 0.57	0.61	% Assets 0.65		-	%°	. %		nk Cat	% ö	0%			

Fidelity® 500 Index

Benchmark 1: Russell 1000 TR USD Benchmark 2: S&P 500 TR USD

Morningstar Analyst Rating 03-06-19

🕄 Gold

Morningstar Pillars	
Process	Process Process
Performance	Positive
People	
Parent G	Positive
Price	Price Positive

Morningstar Analyst Rating Morningstar evaluates mutual funds based on five key pillars, which its analysts believe lead to funds that are more likely to outperform over the long term on a risk adjusted basis.

Analyst Rating Spectrum

😋 Gold

😴 Silver

😳 Bronze

Neutral

Negative

Pillar Spectrum	3				
Positive		• Negative	tive	0	O Neutral
Performance 10-31-19	ance 10-:	31-19			
	1st Otr	2nd Otr	3rd Otr	4th Qtr	Total
2015	0.95	0.29	-6.44	7.03	1.38
2016	1.35	2.46	3.85	3.83	11.97
2017	6.05	3.09	4.47	6.65	21.81
2018	-0.77	3.43	7.71	-13.53	-4.40
2019	13.65	4.30	1.69		
Trailing		+/- Bmark	+/- Bmark	%Rank	Growth of
	Return%		2 2 2	Cat	\$10,000
3 Mo	2.43	0.44	0.00	26	10,243
6 Mo	4.16	0.38	0.00	30	10,416
1 Yr	14.32	0.17	0.00	29	11,432
3 Yr Avg	14.90	0.17	-0.01	17	15,167
5 Yr Avg	10.77	0.22	-0.01	12	16,675

|

				ated)	10 Yr (estimated)
24	0.74	9	9.95	:ed)	5 Yr (estimated
30	0.73	14	14.06	:ed)	3 Yr (estimated
%Rank Cat	Tax-Cost Rat	%Rank Cat	Tax Adj Rtn%	Tax	Tax Analysis
					15 Yr Avg
		1		I	10 Yr Avg
16,675				10.77	5 Yr Avg
15,167	1 17	17 -0.01		14.90	3 Yr Avg
11,432		-		14.32	1 Yr
10,416			0.38	4.16	6 Mo

Potential Capital Gain Exposure: 45% of assets

Mean

Sharpe Ratio

Morningstar's Take by Adam McCullough 03-06-19

Fidelity 500 Index is among the cheapest and most accessible funds for exposure to U.S. large-cap equities. This fund gains a leg up over most of its largea broadly diversified and representative benchmark at a blend Morningstar Category peers by efficiently tracking low cost. It earns a Morningstar Analyst Rating of Gold

mechanical rules committee selects the index's holdings, which offers more flexibility than indexes that adhere to rigid rules representing about 80% of the U.S. stock market. A highly correlated with large-cap indexes that follow performance has been, and should continue to be, but also reduces transparency. However, the S&P 500's weighted index that includes large-cap stocks The fund tracks the S&P 500, a market-cap-

panic. But this risk is worth the cost advantage gained from market-cap weighting, and the fund's broad reach aggregated in stock prices to size its positions. While the market has done a good job valuing stocks over the holdings, the fund relies on the cumulative knowledge long haul, it has gone through episodes of mania and By using market capitalization to weight its

Ι					1							2009									Rating	Risk	Return	Historie			
												2010								Above Avg	****	Average	Above Avg	Historical Profile			
				0.72							44.50	2011		<						<u> </u>			<u>6</u>	e			
ഗ	2.24	0.03	0.00	1.10	35	13.49	2.50	-0.01	-0.43	15.99	50.49	2012			Ì	> }							E				
4	2.29	0.03	0.00	1.20	41	29.97	2.40	-0.01	-0.74	32.37	65.49	2013				Ż	Ł						E				
4	2.05	0.03	0.16	1.36	18	11.56	2.09	-0.03	0.42	13.66	72.85	2014					٢	ł					E				
4	2.14	0.02	0.46	1.57	20	-0.79	2.18	0.00	0.47	1.38	71.80	2015						ž					E		FX	뒫	
J	2.09	0.03	0.40	1.58	26	9.76	2.21	0.01	-0.09	11.97	78.35	2016						5	Z				E		AIX	Ticker	
ഗ	2.11	0.02	0.15	1.69	28	19.64	2.18	-0.02	0.12	21.81	93.45	2017											E		1.8%	Yield	
0	1.96	0.02	0.57	1.81	25	-6.35	1.95	-0.02	0.38	-4.40	87.10	2018								2)		E		\$214,8	Total	
4	1.97	0.02	0.12	1.44	27	21.51	1.66	0.00	0.08	23.17	105.66	10-19									ž		E		\$214,882 mil	Total Assets	
Turnover Rate %	Income Ratio %	Expense Ratio %	Capital Gains \$	Income \$	Total Rtn % Rank	Capital Return %	Income Return %	+/- Bmark 2	+/- Bmark 1	Total Return %	NAV	History	Performance Qua (within Category)		. 10.0			15.0 — Investment Valu	20.0 — Investment Valu	Growth of \$10,00	25.0		Equity	Equity Fourity	Large Blend	Mstar Category	

Katin	Kating and Kisk			
Time	Load-Adj	Morningstar	Morningstar	Morningstar
Period	Return %	Rtn vs Cat		Risk-Adj Rating
1 Yr	14.32			
ЗYr	14.90	+ Avg	Avg	****
5 Yr	10.77	+ Avg	Avg	****
10 Yr				
Incept	12.37			
Other M	Other Measures	Standa	Standard Index	Best Fit Index
Alpha			0.0	0.0
Beta			1.00	1.00
R-Squared	red		100	100
Standar	Standard Deviation		12.07	

weighted index funds are cheaper to run than most actively managed funds because they require fewer investment personnel helps to diversify firm-specific risk. Market-cap-

average turnover has been low over the past decade, but it has distributed small capital gains in each year broad market-cap-weighted approach because it keeps transaction costs down and decreases the likelihood from 2014 through 2018. and magnitude of capital gains distributions. The fund's Low turnover is a key advantage of the fund's

Current Investment Style

%

Sector Weightings

% of Stocks

Rel Bmark 1

drawdown than the category average during the financial crisis. But its smaller cash drag pays off during bull markets. Its performance during the market into strong category-relative performance. During the past decade through February 2019, it outpaced the arge-blend category by 1.4% annually with less risk. recovery more than made up for its larger drawdown Because it remains fully invested, it suffered a larger The fund's durable cost advantage has translated

	Minimum Purchase:	\$0	Add:	IRA: —
	Min Auto Inv Plan:		Add: —	
	Sales Fees:	No-load		
	Management Fee:	0.02%		
	Actual Fees:	Mgt:0.02% Dist:-	Dist:—	
any	Expense Projections:	3Yr:\$5	5Yr:\$8	10Yr:\$19
	Income Distribution:	Quarterly		

Inception:

05-04-11

www.institutional.fidelity.com 800-835-5092

Advisor: Web Address

Subadvisor

Fidelity Management & Research Compa Geode Capital Management, LLC

Address:

idelity Concord Street Trust

, MA 02109

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				>	Ş	✓ 25.0	Growth of \$10,000	8
			٤			20.0	 Investment Values of 	lues of
	لح	- <u>}</u>	۲			15.0 -	 Investment Values of Benchmark 1 	lues of
R						10.0		
\prec						10.0		
							Performance Quartile (within Category)	artile
2011 2012	2013 20	2014 2015	2016	2017 2	2018 1	10-19	History	
44.50 50.49		72.85 71.80	78.35		87.10 1		NAV	
— 15.99			11.97 0.00				Total Return %	
-0.01	-0.01 -0	-0.03 0.00	-0.09	-0.02	-0.02	0.00	+/- Britark 1 +/- Bmark 2	
- 2.50			2.21	2.18			Income Return %	` %
			26	28		27 1	Total Rtn % Rank Cat	k Cat
0.72 1.10	1.20	1.36 1.57 0.16 0.46	1.58 0.40	1.69 0.15	1.81 0.57		Income \$ Canital Gains \$	
0.03	_	_	0.03	0.02	0.02		Expense Ratio %	6
	V 67.7	Z.U5 Z.14	2.09	2.11	1.96	1.9/	Income Ratio %	
653 1,748	-	5,633 6,610			153,362 21	214,882	Net Assets \$mil	_
		Por	Portfolio Analysis 09-30-19	ysis 09-3()-19			
lorningstar Morningstar Rtn vs Cat Risk vs Cat	star Morningstar Cat Risk-Adj Rating	ing	Share change since 08-31-19	8-31-19		Sector	YTD Ret %	% Assets
			Microsoft Corp Apple Inc			Technology	y 42.51 y 59.14	4.2/ 3.83
+ Avg	Avg ****) - 	Amazon.com Inc	C		Cnsmr Cyc		2.90
	 	⊕ € ₩ a	Berkshire Hathaway Inc B	away Inc B		Finan Svcs	4.11	1.64
			JPMorgan Chase & Co	se & Co		Finan Svcs		1.51
Standard Index	Best Fit Index		Alphabet Inc Class C	ass C		Technology		1.48
0.0		Ѐ	Alphabet Inc. A	nusr		Iechnology Hith Care	/ 20.46 4.49	1.47
100		100 ⊕ Pr	Procter & Gamble Co	le Co		Cnsmr Def		1.25
12.07		€.	Exxon Mobil Corp	, lb		Energy		1.20
14.90		⊕ € A ≤	 O Missi IIIC Oldass A O AT&T Inc 			Comm Svcs	s 42.01	1.11
1.08		€ ₩	The Home Depot Inc	ot Inc		Cnsmr Cyc		1.02
)⊕	Verizon Communications In	inications In		Comm Svcs		1.01
-snecific risk Market-can-	rket-can-	⊕ (I ≤ ¤	Mastercard Inc A	A Corporati		Finan Svcs	47.43	0.98
are cheaper to run than most	in than most	•⊕	The Walt Disney Co	y Co		Cnsmr Cyc		0.95
ds because they require fewer	require fewer	⊕ ⊕ ⊊ =	 Intel Corp Chevron Corp 			Energy	y 22.47 10.04	0.9Z
-						!		

M "RNINGSTAR" M	Return on Equity Return on Assets Net Margin	Profitability	Cash Flow 13.31 Historical Erngs 14.42	Sales 7.05	Erngs	Growth Measures % Re	¢.00		Price/Sales 2.14		Price/Earnings 18.18	Value Measures Re	· · · ·	AVG \$mil: 111 106	MICTO	Ilem			rsige	Value Blend Growth Market Cap
Mutual Funds	26.31 9.06 17.27	%	1.05 0.94	0.99 Composi	0.99	Rel Category 🔽 Utilities	•		ţ		¢	Rel Category 🔥 Energy	=•	Ę	Ð	1	Þ	Þ		Cap % Weightings
8	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Other Foreign	Gast Gast Gast Bonds	Composition - Net		ities 3.59	Hlthcare 13.57	CnsmrDef 8.12	Defensive 25.28	Technlgy 23.33	Industrl 10.39		CommSrvs 3.41	Sensitive 41.65	Real Est 3.22	FinanSvcs 15.68	CnsmrCyc 11.76	BasicMat 2.40	lical 33.06	igs Stocks
	(% of Stock)	er 0.0	ds 0.2 ds 0.0			1.08	0.98	1.13		1.21	1.03	1.10	0.34		0.76	1.01	1.17	0.99		Bmark 1

Release date 10-31-2019

Fidelity[®] Mid Cap Inde (USD)

Unsubsidized	Unsi	Subsidized	S		-
		307	371	421	No. in Cat
		16	19	19	% Rank Cat
	Ι	0.00	-0.02	0.06	+/- Cat Index
I		-2.10	-2.65	-0.54	+/- Std Index
13.23		8.67	12.26	13.78	Total Return
13.23		9.09		3.23	Std 09-30-2019
13.23		8.67	12.26	13.78	Load-adj Mthly
Incept	10 Yr	5 Yr	3 Yr	1 Yr	Trailing Returns
23.19		0.44	4.14	16.53	2019
-9.05	-15.32	4.97	2.80	-0.48	2018
18.47	6.08	3.44	2.71	5.12	2017
Total %	4th Otr	3rd Qtr	2nd Otr	1st Otr	Quarterly Returns
				-31-2019	Performance 10-31-2019

30-day SEC Yield

7-day Yield

Performance Disclosure The Overall Morningstar Rating is based on risk-adjusted retur (if applicable) Morningstar metrics. derived from a weighted average of the three-, five-, and 10-ye

principal value of an investment will fluctuate; thus an investor's shares, when sold or redeemed, may be worth more or less than their original cost. does not guarantee future results. The investment return and The performance data quoted represents past performance and

month-end, please call 800-544-8544 or visit www.institutional.fidelity.com. quoted herein. For performance data current to the most recent Current performance may be lower or higher than return data

Fees and Expenses

Sales Charges

Deferred Load % Front-End Load %

Å Å

0.03 0.03

ΝA

0.03

-0.00		-2.0	פווקוב
ren III den		_2 01	ΔInha
Morningstar US Mid	Morning		
Best Fit Index		Standard Index	MPT Statistics
I	0.64	0.82	Sharpe Ratio
	8.67	12.26	Mean
	12.69	13.20	Standard Deviation
10 Yr	5 Yr	3 Yr	
	+Avg	+Avg	Morningstar Return
	-Avg	Avg	Morningstar Risk
	4★	4★	Morningstar Rating TM
230 funds	307 funds	371 funds 307 funds	
10 Yr	5Yr	3 Yr	

Objective: Tenure: Manager: Family: Potential Cap Gains Exp Operations 12-Month Yield Growth 8.2 Years Multiple Fidelity Investments

NISI Ticker:

Base Currency:

FSMDX

Incept: Type: Total Assets:

> 09-08-2011 ⊳

\$11,721.10 mil ₹ Purchase Constraints:

US3161462656

USD

Minimum Initial Purchase:

ŝ

R-Squared

1.05 92.84 ċ

0.98 99.80

12.29%

Beta

or's	nd	100	Irns,				dized			Ι	3.23	2 22	o ncept		3 19	9.05	8 47	51 0 <u>2</u>				D <	
Asset All Cash	Portfol		I				I	2008									1			-94022101			
Asset Allocation % Cash	Portfolio Analysis 09-30-2019		I	I				2009									1		09-30-2019	Brnnze ^o	Rating [™]	Morningstar Quantitative	
6	sis 09-3		I	I				2010									1		19	7 <u>P</u> 0		jstar Qu	
	0-2019		I	I			10.39	2011			1						94					antitativ	
Net % 0.43		412	41	-0.06	1.21	17.22	11.96	2012			}						99						
Long % 0.43		399	45	0.02	2.39	34.78	15.83	2013			1	X					99			71 US F	****	Verall N	
Short % 0.00		369	7	-0.10	-0.57	13.11	17.45	2014				ł					86		_	371 US Fund Mid-Cap Blend		Overall Morningstar Rating TM Standard Index	
		432	27	0.00	-3.83	-2.44	16.32	2015									99		-	-Cap Ble		star Rati	
Chg		427	59	0.07	1.90	13.86	18.17	2016				S					66				S	ing™ S	
Share Amount		443	24	-0.05	-3.36	18.47	20.98	2017									100		_		S&P 500 TR USD	tandard	
Holdings : 805 Total :		464	29	0.01	-4.67	-9.05	18.63	2018					\$				98		_		TR USD	Index	
Stocks , 1		423	1	-0.02	0.03	23.19	22.87	10-19									100		_	USD	Russe	Categ	
Holdings : Net Assets 805 Total Stocks , 1 Total Fixed-Income, %		No. of Funds in Cat	% Rank Cat	+/- Category Index	+/- Standard Index	Total Return %	NAV/Price	History	Performance Quartile (within category)	4k	10k 31,794	20k 23,079 Standard Index	I.	^{40k} 29,588	-60k — Fidelity® Mid Cap Index		Stocks %	Investment Style Equity		Blend	Russell Mid Cap TR US Fund Mid-Cap	Category Index Morningstar Cat	

Regional Exposure Americas Greater Europe Greater Asia	Below B NR	BB	AA A BRB	Credit Quality Breakdown – AAA	MOT	Fixed-Income Style	Cauty Style	Total	Non-US Stocks Bonds Other/Not Clsfd	Asset Allocation % Cash US Stocks
Stocks % 99.0 0.4 0.6				down —		Avg Eff Maturity Avg Eff Duration Avg Wtd Coupon Avg Wtd Price	Portfolio Statistics P/E Ratio TTM P/C Ratio TTM P/B Ratio TTM Geo Avg Mkt Cap \$mil	100.00	1.02 0.01 0.00	Net % 0.43 98.54
Rel Std Index 1.00 0.43 10.59		1 1	1 1 1	Bond %			Port Rel Cat Avg Index Cat 19.8 0.95 0.98 12.0 0.88 1.03 2.5 0.79 1.08 13474 0.12 1.64	00		Long % Short % 0.43 0.00 98.54 0.00
 → Defensive Consumer Defensive Healthcare Utilities 	- Energy Industrials	 Sensitive Communication Services 	 Financial Services Real Estate) (c	Sector Weightings	- + + /, 332 - + 1 mil - + 657,286 609,182) ⊕ ☆ ⊕ ⊕ ☆	_ ⊕ 384,425 _ ⊕ 406,974	• • •	Share Chg since 08-2019
					Stoc	Twitter Inc Twitter Inc Newmont Goldcorp Corp SunTrust Banks Inc ONEOK Inc	Welltower Inc Xcel Energy Inc Lam Research Corp Equity Residential Consolidated Edison Inc Dublic Service Extension C	Dollar General Corp Sempra Energy	Fiserv Inc Global Payments Inc L3Harris Technologies Inc	
17.4 0.92 21.5 0.88 5.4 0.68 9.1 0.64 7.1 2.03		36.5 0.84 0.09		42.0 1.30 1.84	Rel Std	0.41 0.41 0.40 0.40 0.40		0.53	0.77 0.62 0.61	Net A

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25

Fidelity® Small Cap Index	B S	ma		ap	Inde		Mornings Rating TM	gstar Qu	Morningstar Quantitative Rating TM		Overall Morningstar Rating [™] Standard Index ★★★★ S&P 5.00 TR UST	Morning	star Rati	S [™] Bu	Standard Index	Index	Category In Bussell 2001	Category Index Buissell 2000 TR	Morningstar Cat
(USD)				•			Bronze a 09-30-2019	1 126 ° 119			640 US Fund Small Blend	und Sma	all Blend	c	<u></u>		USD	2000	
Performance 10-31-2019	31-2019																	Investr	Investment Style
Quarterly Returns	1st Otr	2nd Otr	3rd Otr	4th Otr	Total %	ΙĘ	IE	ΙĘ	94	98	99	99	98	8	99	100	99	Equity Stocke %	0/_
2017	2.51	2.52	5.71	3.38	14.85													100k	70
2018	-0.05	7.79	3.63	-20.17	-10.88													£	Growth of \$10,000
2019	14.56	2.13	-2.34		17.29												4		 Fidelity[®] Small Cap Index 27 A 23
Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept											\$	*	ີ [tegory Average
Load-adj Mithly	5.04	11.13	/.5/		12.1/								Ş	S				20k 24	,769
Std 09-30-2019	-8.79		8.39		11.94				1	{								2 2	Standard Index
Total Return	5.04	11.13	7.57		12.17												1	-10k 31	31,734
+/- Std Index	-9.28	-3.78	-3.20																
+/- Cat Index	0.14	0.17	0.20		Ι												4k		
% Rank Cat	43	23	25															Perforn	Performance Quartile
No. in Cat	721	640	510					[[[[[[[[(WILIIII C	(WITHIN CATEGORY)
	1	ā				2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	10-19	History	Y
		Su	Subsidized	Unsi	Unsubsidized	I			10.66	12.15	16.54	16.79	15.46	18.36	20.32	17.24	20.15	NAV/Price	ice
7-day Yield			I							16.38	39.02	5.19	-4.24	21.63	14.85	-10.88	17.29	Total Re	Total Return %
30-day SEC Yield										0.38	6.64	-8.50	-5.63	9.67	-6.98	-6.49	-5.87	+/- Star	+/- Standard Index
Performance Disclosure	sure			:					1	0.03	0.20	0.30	0.17	0.32	0.20	0.14	0.11	+/- Cate	+/- Category Index
The Uverall Morningstar Hating is based on risk-adjusted returns,	star Hatin	g is based	1 on risk-á	adjusted	returns,					34	33	40	44	40	22	33		% Rank Cat	Cat
denved nom a weighted average of the three-, nve-, and to-year	neu avera	iye or me	unee-, n	ve-, anu	ru-year					662	681	737	780	750	802	769	725	No. of F	No. of Funds in Cat

The performance data quoted represents past performance and shares, when sold or redeemed, may be worth more or less that principal value of an investment will fluctuate; thus an investo does not guarantee future results. The investment return and (if applicable) Morningstar metrics derived from a v

www.institutional.fidelity.com month-end, please call 800-544-8544 or visit quoted herein. For performance data current to the most recen Current performance may be lower or higher than return data their original cost.

Fees and Expenses

Sales Charges

Deferred Load % Front-End Load %

Management Fees % Fund Expenses **Gross Expense Ratio %** Net Expense Ratio % 12b1 Expense %

Risk and Return Profile

MPT Statistics Sharpe Ratio Alpha Mean Morningstar Risk Morningstar Rating[™] Standard Deviation Morningstar Return Standard Index 640 16.92 11.13 +Avg funds 0.61 Avg 4¥ aγ aγ 1.22 75.20 5.51 510 15.96 7.57 0.47 +Avg +Avg 5 Yr funds 5Yr 4★ Best Fit Inc Russell 2000 371 0 £ 10 ≓

Objective: Manager: Family: Tenure: Potential Cap Gains Exp Operations 12-Month Yield 8.2 Years Multiple Small Company Fidelity Investments

14.93

100

R-Squared

Beta

	USD USD 0.15 1.00 00.00	10 Yr	0.03 0.03	NA	and nd stor's than ta ta	sidized	12.17
Base Currency: Ticker: ISIN: Minimum Initial Purchase:	Below B NR Regional Exposure Americas Greater Europe Greater Asia	Credit Quality Breakdown AAA AA ABB BBB BBB BBB	Fixed-Income Style	Total Equity Style	Portfolio Analys Asset Allocation % Cash US Stocks Non-US Stocks Bonds Other/Not Clsfd		2008
rrency: n Initial I	Exposure s Europe Asia	ality Brea	beM rigit Ext bem owne Style	Growth	Portfolio Analysis 07-31-2019 Asset Allocation % Cash Stocks Von-US Stocks Bonds Dther/Not Clsfd		2009
Purchase		skdown –	-		sis 07-31		010
	ş		Smil Smil Avg Eff Maturity Avg Eff Duration Avg Wtd Coupon Avg Wtd Price	100.00 Portfolio Statistics P/E Ratio TTM P/C Ratio TTM P/C Ratio TTM P/B Ratio TTM	-2019 9	10.66	
USD FSSNX US3161461823 \$0	Stocks % 99.5 0.3 0.2			ii cs 0.00		12.15 16.38 0.38 0.03 34 662	2012
823	Re				Long % 1.10 97.91 0.99 0.00 0.00	16.54 39.02 6.64 0.20 33 681	2013
	Hel Std Index 1.00 3.26	Bond %			Short % 0.00 0.00 0.00 0.00 0.00	16.79 5.19 -8.50 0.30 40 737	2014
Purcha Incept: Type: Total A				$ \oplus \oplus \oplus \oplus \oplus \oplus \oplus \oplus \oplus $		15.46 -4.24 -5.63 0.17 44 780	2015
Purchase Constraints: Incept: Type: Total Assets:	Energy Industrials Technology Defensive Consumer I Healthcare Utilities	Sector Weightings Cyclical Basic Materials Consumer Cyclical Financial Services Real Estate Sensitive Sensitive Financial Services	59 20 27 28 28	55 28 23 33	4 4 6	18.36 21.63 9.67 0.32 40 750	2016
nstraint	Energy Industrials Technology Defensive Consumer Defensive Healthcare Utilities	tings aterials aterials servic al Servic al Servic ate ate	599,999 F 203,845 \$ 279,340 T 279,340 T 995,154 F 286,509 E 286,509 E 253,319 \$	322,394 551,682 281,487 425,705 232,025 232,025 8 339,489		20.32 14.85 -6.98 0.20 22 802	2017
	nsive	sal es Service	First Industrial F Silicon Laborato Trex Co Inc Radian Group In Black Hills Corp Southwest Gas	Chegg Inc Science Applica Portland Genera Blueprint Medic Teladoc Health I	Holdings : 2.000 Total Stock 18% Turnover Ra 18% Turnover Ra 18% NovoCure Ltd Haemonetics	17.24 -10.88 -6.49 0.14 33 769	2018
		5	First Industrial Realty Ti Silicon Laboratories Inc Trex Co Inc Radian Group Inc Black Hills Corp Black Hills Gas Holding	Chegg Inc Chegg Inc Science Applicatio Socience Applicatio Portland General E Blueprint Medicine Blueprint Medicine	Holdings : 2,200 Total Stocks , 07 18% Turnover Ratio 18% Turnover Ratio 18% Stocks & 18% E-mini Russell 200 E-mini Russell 200 Hoamonetics Corp Haaemonetics Corp	20.15 17.29 -5.87 0.11 	10-19
A 09-08-2011 MF \$9,824.46 mil	3.1 15.3 15.2 3.7 15.3 3.9	Stocks % 42:5 11.2 9.0 34.6 1.0	First Industrial Realty Trust Inc Silicon Laboratories Inc Trex Co Inc Radian Group Inc Black Hills Corp Black Hills Corp	Chegg Inc Chegg Inc Science Applications International Portland General Electric Co Blueprint Medicines Corp Blueprint Medicines Corp	Holdings : 2.000 Total Stocks , 0 Total Fixed-Income, 18% Fumover Ratio E-mini Russell 2000 Index Futures NovoCure Ltd Haemonetics Corp Haathof-mixture	NAV/Price Total Return % +/- Standard Index +/- Category Index % Rank Cat No. of Funds in Cat	4k Within category) History
	0.72 1.53 0.81 0.48 1.08 1.11	Rel Std Index 1.37 2.33 1.14 1.08 2.85 0.79 0.10	0.24 0.24 0.23 0.23 0.23 0.23	0.27 0.26 0.25 0.24 0.24 0.24	Net Assets 0.70 0.35 0.31		

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M RNINGSTAR ®

Fidelity® US Bond Index

Benchmark 1: BBgBarc US Agg Bond TR USD Benchmark 2: BBgBarc US Agg Bond TR USD

Morningstar Analyst Rating 04-04-19

Hist Retu Risk Ratii

🕃 Silver

Morningstar Pillars	
Process	Positive
Performance	Neutral
	Positive
Parent	Positive
Price	Positive

200

Morningstar Analyst Rating Morningstar evaluates mutual funds based on five key pillars, which its analysts believe leaft of funds that nee more likely to outperform over the long term on a risk-adjusted basis.

Analyst Rating Spectrum

🕶 Gold

🕃 Silver

😳 Bronze

Neutral

Negative

Pillar Spectrum

					15 Yr Avg
		I			10 Yr Avg
11,699	28	-0.05	-0.05	3.19	5 Yr Avg
10,992	39	-0.09	-0.09	3.20	3 Yr Avg
11,144	31	-0.07	-0.07	11.44	1 Yr
10,566	33	-0.05	-0.05	5.66	6 Mo
10,227	33	-0.08	-0.08	2.27	3 Mo
\$10,000	Cat	2	_	Return%	
Growth of	%Rank	+/- Bmark	+/- Bmark	Total	Trailing
		2.27	2.97	2.96	2019
0.01	1.70	0.07	-0.22	-1.51	2018
3.50	0.37	0.87	1.33	0.89	2017
2.52	-3.14	0.42	2.24	3.09	2016
0.63	-0.57	1.33	-1.76	1.67	2015
Total	4th Otr	3rd Otr	2nd Otr	1st Otr	
			31-19	Performance 10-31-19	Perform
Neutral	0	itive	O Negative		Positive

Tax Analysis T 3 Yr (estimated) 5 Yr (estimated) 10 Yr (estimated) Tax Adj Rtn% 2.09 1) 2.06 %Rank Cat 36 22 Tax-Cost Rat 1.08 1.09 %Rank Cat 56 56

Potential Capital Gain Exposure: - 2% of assets

Morningstar's Take by Alex Bryan 04-04-19

upgrade to Silver from Bronze. bond funds available. While its index-tracking Fidelity U.S. Bond Index is a compelling core bond the long term. It warrants a Morningstar Analyst Rating conservative credit risk should serve investors well over index peers, its sizable cost advantage and performance hasn't been quite as strong as some of its strategy. It is one of the cheapest investment-grade

The fund tracks the market-value-weighted Bloomberg Barclays U.S. Aggregate Bond Index, which includes U.S.-dollar-denominated bonds with at least one year until maturity. Market-value-weighting allows to be the cheapest to trade. about the relative value of each holding. It also keeps the fund to harness the market's collective wisdom the portfolio toward the largest debt issues, which tend transaction costs low by mitigating turnover and tilting

two thirds of the portfolio. This should help the fund backed securities, which jointly account for more than quality government Treasuries and agency mortgagehold up better This approach pulls the portfolio toward highthan most of its peers when credit

		I	Ι		Ι	I	Ι	Ι				600								gui	· ~	B	itoric			
					Ι							2010								Above Avg	High	Above Avg	torical Profile			
106	3.27	0.05	0.07	0.24							11.78	2011			~				ľ			ű	0			
100	2.80	0.05	0.08	0.30	82	1.64	2.59	0.02	0.02	4.23	11.89	2012				۲]										
118	2.33	0.05	0.00	0.27	69	-4.50	2.31	-0.17	-0.17	-2.19	11.36	2013				Ś	•									
25	2.65	0.05	0.01	0.30	26	3.35	2.63	0.02	0.02	5.99	11.73	2014				Z	ł							_		
75	2.62	0.05	0.02	0.30	18	-1.93	2.56	0.08	0.08	0.63	11.49	2015					$\left\{ \right\}$								Ticker	
12	2.55	0.05	0.00	0.29	66	-0.03	2.55	-0.13	-0.13	2.52	11.49	2016						5						2.1/0	Yield	
19	2.52	0.03	0.01	0.29	57	0.94	2.56	-0.04	-0.04	3.50	11.59	2017						ł						2.20/0	SEC Yield	
43	2.66	0.03	0.00	0.31	29	-2.68	2.69	0.00	0.00	0.01	11.28	2018						{						φ 4 4,		
<u>بر</u>	2.87	0.03	0.00	0.27	49	6.35	2.39	-0.11	-0.11	8.74	11.99	10-19							مم	4				φ44,7 JU IIII	Total Assets	
Turnover Bate %	Income Ratio %	Expense Ratio %	Capital Gains \$	Income \$	Total Rtn % Rank Cat	Capital Return %	Income Return %	+/- Bmark 2	+/- Bmark 1	Total Return %	NAV	History	Performance Quartile (within Category)	1010	10.0		Investment Values o I1 0 Benchmark 1	12.0 Fund	 Investment Values o 	13.0 Growth of \$10,000		Hixed Income	Investment Style	Bond	Intermediate Core	Metar Category

	0.48		Ratio	Sharpe Ratio
	3.20			Mean
	3.36		Standard Deviation	Standar
100	100		red	R-Squared
1.02	1.02			Beta
-0.1	-0.1			Alpha
Best Fit Index	Standard Index	Stand	Other Measures	Other M
			3.38	Incept
				10 Yr
****	High	+ Avg	3.19	5 Yr
***	+Avg	Avg	3.20	3 Yr
			11.44	1 Yr
Risk-Adj Rating	Risk vs Cat	Rtn vs Cat	Return %	Period
Morningstar	Morningstar	Morningstar	Load-Adj	Time
			Rating and Risk	Ratin

years. comes from its sensitivity to interest rates. The average duration of the fund's holdings is currently just under six economic environments. However, it may not keep pace with funds that overweight lower-quality issuers investment-grade funds, most of this portfolio's risk when credit risk pays off. Like most intermediate-term spreads widen, which typically occurs in tough

a tougher hurdle to beat debt could make it a low hurdle for active managers, that does not diminish the case for owning this index greater risk. After adjusting for risk, this fund becomes that regularly earn higher returns are likely taking portfolio. Bonds' risk and return are closely linked. Funds While this index fund's bias toward high-quality

the fund slightly lagged the intermediate-term bond Morningstar Category average by 94 basis points annually, largely owing to its greater exposure to Treasuries. Over the trailing 10 years through February 2019

	Minimum Purchase:	0\$	Add:	IRA: —
	Min Auto Inv Plan:		Add:	
	Sales Fees:	No-load		
	Management Fee:	0.03%		
	Actual Fees:	Mgt:0.03% Dist:	Dist:	
rch Company	Expense Projections:	3Yr:\$8	5Yr:\$14	10Yr:\$32
t (U.K.) Limited	Income Distribution:	Monthly		

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Boston, MA 02109 800-544-8544

					코 r	- 1	5				-		1	_		_		1		1											_		3.
2 2 2 0		3.19	3.20	11.44	Return %	24	g and Risk	I					1		I	l					2010								ADOVA AVO	***	High		rical Profile
		+ Avg	Avg		Rtn vs Cat			770	106	3.27	0.05	0.07	0.24							11.78	2011				2				g		ÿ		D
					t Risk vs Cat			893	100	2.80	0.05	0.08	0.30	82	1.64	2.59	0.02	0.02	4.23	11.89	2012				ζ	١							
			+Avg ★★					875	118	2.33	0.05	0.00	0.27	69	-4.50	2.31	-0.17	-0.17	-2.19	11.36	2013				ł	S							
		***	*		Risk-Adj Rating	-		1,290	85	2.65	0.05	0.01	0.30	26	3.35	2.63	0.02	0.02	5.99	11.73	2014					2	5						
Fannie	Freddi	Fannie	Ginnie	Fannie	Total F	Ì	Port	1,427	75	2.62	0.05	0.02	0.30	18	-1.93	2.56	0.08	0.08	0.63	11.49	2015						}						
Fannie Mae 3% 30 Year	Freddie Mac 3.5% 30 Yea	Fannie Mae 4% 30 Year	Ginnie Mae 3.5% 30 Year	Fannie Mae 3.5% 30 Yea	Total Fixed Income: 2006		Portfolio Analysis 09-30-19	11,092	12	2.55	0.05	0.00	0.29	66	-0.03	2.55	-0.13	-0.13	2.52	11.49	2016						7	>					
30 Year	% 30 Yea	30 Year	6 30 Year	6 30 Year	1e: 2006		alysis ng	17,104	19	2.52	0.03	0.01	0.29	57	0.94	2.56	-0.04	-0.04	3.50	11.59	2017						١						
					Maturity	Date of	-30-19	34,320		2.66	0.03	0.00	0.31	29	-2.68	2.69	0.00	0.00	0.01	11.28	2018						į	{					
l	I					of.		44,790	35	2.87	0.03	0.00	0.27	49	6.35	2.39	-0.11	-0.11	8.74	11.99	10-19							٦	1	7			
946 583	971,676	1,100,349	1,122,723	1,143,226	Amount 000			Net	Turi	Inco	Exp	Cap	Inco	Tota	Cap	Inc	+	+/	Tota	NAV	Ħ	(wit	Per	0.0	10 0	- 11.0	Ι	- 12.0		13 0		Fixe	INV
970 327	1,007,166	1,156,658	1,171,828	1,187,141	\$000	Value		Net Assets \$mi	Turnover Rate %	Income Ratio %	Expense Ratio %	Capital Gains \$	Income \$	Total Rtn % Rank Cat	Capital Return %	ome Return '	+/- Bmark 2	+/- Bmark 1	Total Return %	<	History	(within Category)	Performance Quartile			Benchmark 1	Investment Values of	 Investment Values of Fund 	13.0 Growin of \$10,000			Fixed Income	Investment style
221	2.29	2.64	2.67	2.70	Assets	%		_			0			k Cat	0	%							artile				ues of	lues of	Ę	5			

23		Corporate	C	gh 1
ω	ted	Government Related	G	
44		Government	G	ation
% Assets		Sector Breakdown	S	Current Investment Style
0.71	310,659	301,530	04-30-24	United States Treasury
0.71	311,960	311,267	11-30-21	United States Treasury
0.72	316,946	309,149		Fannie Mae 3% 15 Year
0.75	329,103	316,993	06-30-23	United States Treasury
0.79	346,083	337,874	03-31-24	United States Treasury
0.84	368,132	348,077		Ginnie Mae 4.5% 30 Year
0.89	391,801	384,016	02-15-22	United States Treasury
1.01	444,881	438,576	05-15-21	United States Treasury
1.02	445,801	419,496		Fannie Mae 4.5% 30 Year
1.09	479,760	325,106	05-15-37	United States Treasury
1.29	568,048	553,920		Freddie Mac 3% 30 Year
1.36	597,010	568,775		Freddie Mac 4% 30 Year
1.58	693,044	662,903	08-15-27	United States Treasury
1.60	701,935	681,041		Ginnie Mae 3% 30 Year
1.66	729,146	695,643		Ginnie Mae 4% 30 Year
2.21	970,327	946,583		Fannie Mae 3% 30 Year
2.29	1,007,166	971,676		Freddie Mac 3.5% 30 Yea
2.64	1,156,658	1,100,349		Fannie Mae 4% 30 Year
2.67	1,171,828	1,122,723		Ginnie Mae 3.5% 30 Year
2.70	1,187,141	1,143,226	I	Fannie Mae 3.5% 30 Year
	-			

Current Investment Style	Style	Sector Breakdown	eakdown	%	% Assets
Duration		Government	ent		44
	0	Governm	Government Helated	0	5
h Med		Corporate Agency MBS	ABS		26
MOJ	¹ figure provided by	Non-Age	Non-Agency Residential MBS	ential MBS	- 0
	fund	Covered Bond	annd		- c
Avg Eff Maturity	c.		cked		0
Ava Credit Ouality	AA	· .			0
Avg Wtd Coupon	3.16%	5 Cash & Equivalents	quivalents		2
Avg Wtd Price	106.73% of par	r Other			0
Coupon Range	% of Bonds	Composition - Net	on - Net		
0% PIK	0.0) Cash	1.6	Bonds	97.9
0% to 4%	82.2	Stocks	0.0	Other	0.5
4% to 6%	16.1		:		
6% to 8%	1.6		ocurities		
8% to 10%	0.1		Hestricted/Illiquid Secs	, ecs	
More than 10%	0.0	-	Emerging-Markets Secs Ontions/Futures/Warrants	virrants	o _
Credit Analysis	% bonds 09-30-19				
AAA 75	BB (U			
AA 4	В	0			
A 11	Below B (U			
BBB 9	Not Rated (_			

©2019 Moringstar. Al Rights Reserved. The taba and analyses beeindoes not constitute investment advice; is provided solely for informational purposes; is not an differ to buy/sell a security; and is not waranted to be correct, complete or accurate. Morningstar is not responsible for any trading decisions, damages or ussess resulting from, or related to, inte data and analyses or there use.

MORNINGSTAR[®] Mutual Funds

Ξ

Hartford Schroders Intl Multi-Cp Val SDR

Ticker SIDRX

Yield 3.1%

Total Assets \$2,073 mil

Mstar Category Foreign Large Value

Benchmark 1: MSCI ACWI Ex USA Value NR USD Benchmark 2: MSCI ACWI Ex USA NR USD

Morningstar Analyst Rating 04-15-19

Bronze

Morningstar Pillars	
Process	Process Process
Performance	Positive
People	Positive
Parent	Positive
Price	Price O Positive

Morningstar Analyst Rating Morningstar evaluates mutual funds based on five key pillars, which its analysts believe lead to funds that are more likely to outperform over the long term on a risk-adjusted basis.

Analyst Rating Spectrum

🕶 Gold

🐺 Silver

😳 Bronze

Neutral

Negative

Pillar Spectrum	3				
Positive		Negative	tive	0	O Neutral
Perform:	Performance 10-31-19	31-19			
	1st Otr	2nd Otr	3rd Otr	4th Otr	Total
2015	3.21	1.39	-10.48	1.89	-4.56
2016	2.52	0.41	7.01	-1.10	8.94
2017	8.32	4.88	4.75	3.58	23.27
2018	-0.23	-4.28	1.37	-12.44	-15.23
2019	9.44	1.38	-2.74	I	I
Trailing	Total - Return%	+/- Bmark +/- Bmark	+/- Bmark ?	%Rank	Growth of
3 Mo	4.44	1.67	1.57	40	10,444
6 Mo	0.45	0.56	-1.51	63	10,045
1 Yr	6.99	1.04	-4.28	42	10,699
3 Yr Avg	5.77	-0.44	-2.31	55	11,831
5 Yr Avg			I		

10 Yr (estimated)	5 Yr (estimated)	3 Yr (estimated) 4.24 56 1.44	Tax Analysis Tax Adj Rtn% %Rank Cat Tax-Cost Rat %Rank Cat	15 Yr Avg — — — —	10 Yr Avg — — — — —	
		1.44	st Rat 9			
		75	6Rank Cat			

Potential Capital Gain Exposure: 8% of assets

Morningstar's Take by Gregg Wolper 04-15-19

Rating of Bronze. average. As a result, it retains its Morningstar Analyst experienced management and a process that has demonstrated its value over time. Its cost is below Hartford Schroders International Multi-Cap Value has

Langford also play key roles and have lengthy experience with the team. The fourth listed manager, going in and out of the models and also research valuation. However, analysts examine the numbers including profitability and financial strength--and metrics designed to assess a company's quality--Michael O'Brien, was named in 2016; he joined develop the stock-selection models) and Stephen director of research David Philpotts (who helped manager on this fund since its 2006 inception. Cosubadvisor) in the mid-1990s and has been the lead quantitative equity team at Schroders (this fund's led by Justin Abercrombie, who founded the the process relies on quantitative screens that examine Schroders in 2008, working with Philpotts. The bulk of This fund uses a quantitative approach. The team is

	Address: Web Address: Inception: Advisor: Subadvisor:
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herein does not constitute inve ted to be correct, complete or a , the data and analyses or their	Minimum Purchase: Min Auto Inv Plan: Sales Fees: Management Fee: Actual Fees: Expense Projections: Income Distribution:
stment advice; is provided solely fo accurate. Morningstar is not respon r use.	\$5000000 Add: Add: 0.72% mx/0.67% mn. 0.72% Dist: 3fr:\$248 5Yr:\$428 Duarterly
or informational sible for any	IRA:

		2009	Historic Return Risk Rating
		2010 	Historical Profile Return Average Risk Average Neutral Neutral
		2011	©
		2012 	
		2013 	
0		2014 8.74 	
3.18 90 73	3.16 -7.72 66 0.27 0.27	2015 8.08 -4.56 1.11	
1.00 2.37 94 235	2.43 6.51 13 0.00 0.00	2016 8.60 8.94 0.02 4.44	
2.43 508	20.50 20.50 41 0.23 0.11	2017 10.24 23.27 0.61 -3.92	
2.69 87 512	-17.95 -17.95 43 0.27 0.22	2018 8.21 -15.23 -1.26 -1.03	
2.59 	2.30 10.16 49 0.19 0.00	10-19 9.04 12.52 2.02 -2.93	
Laperise riado <i>n</i> Income Ratio % Turnover Rate % Net Assets \$mil	Total Return % Capital Return % Total Rtn % Rank Cat Income \$ Capital Gains \$	History NAV Total Return % +/- Bmark 1 +/- Bmark 2	Investment Style Equity 13.0 Growth of \$10,000 12.0 Investment Values of 11.0 Fund 10.0 Benchmark 1 10.0 Benchmark 1 Performance Quartile Writhin Category)

Ratin	Kating and Kisk			
Time	Load-Adj	Morningstar	Morningstar	Morningstar
Period	Return %	Rtn vs Cat	Risk vs Cat	Risk vs Cat Risk-Adj Rating
1 Yr	6.99			
3 Yr	5.77	Avg	Avg	Avg ***
5 Yr				
10 Yr	I			
Incept	4.12			
Other M	Other Measures	Standa	Standard Index	Best Fit Index
Alpha			-2.4	-2.4
Beta			1.04	1.04
	2		05	22

Other Measures	Standard Index	Best Fit Inde
Alpha	-2.4	-2
Beta	1.04	1.0
R-Squared	95	(0
Standard Deviation	12.31	
Mean	5.77	
Sharpe Ratio	0.38	

.. _ .. . _

models require adjustments. companies and industries to determine whether th

a bit more than the category norm and a full percentage point worse than the MSCI ACWI ex U.S. Index. One reason is the fund's all-cap nature. Often that has has outperformed is by typically losing less during market declines. However, that didn't happen in the dismal fourth quarter of 2018. The fund plunged 12.6%, doubled the foreign large-value Morningstar Catego average, which rose 2.0%. The fund also beat the N helped, but in that quarter smaller stocks suffered even which gained 3.1% and 2.3%, respectively. One wa ACWI ex U.S. and MSCI ACWI ex U.S. Value indexe 2019, the I shares' 4.5% annualized return more that record. From its inception through the end of Marcl This approach has helped the fund amass a str

adds costs not captured in the below-average expense ratio. All told, this fund should continue to outperform One concern had been rather high turnover in the analyst corps. That has slowed down since 2017, though. Higher-than-average portfolio turnover also more than large caps.

over time.		
Minimum Purchase:	\$5000000 Add:	IRA: -
Min Auto Inv Plan:	Add:	
Sales Fees:	No-load	
Management Fee:	0.72% mx./0.67% mn.	
Actual Fees:	Mgt:0.70% Dist:	
Expense Projections:	3Yr:\$246 5Yr:\$428	10Yr:9
Income Distribution:	Quarterly	

lin Auto Inv Plan:		
ales Fees:	No-load	
lanagement Fee:	0.72% mx./0.67% mn.	
ctual Fees:	Mgt:0.70% Dist:	
xpense Projections:	3Yr:\$246 5Yr:\$428	10Yr:\$954
come Distribution:	Quarterly	

ay it	č	_	lan	th denois	_		e ei		•	•	•			_		-2.4	it Index		•	~	~	•		star T Ratino S		_	_						
		Surrent Value Ble		1) Pub	0 60	⊕ Shic	⊕ Tele	① Cen	~		() Nip	Taiv	HSE	⊕ Moi	t Ms₀	⊕ DBS	Sch	⊕ NTI		⊕ Ast	⊕ Glay	⊕ San	⊕ Roc	iotal St Share cl	Portf	6/	7 0 0	3.18	1.08	0.00	0.27	66	-7.72
biM 90	Γοιί	Current Investment Style Value Blend Growth M		Publicis Groupe SA	KDDI Corp	Shionogi & Co Ltd	Telenor ASA	Central Japan Railway Co	Red Electrica Corporacion	CK Asset Holdings Ltd	Nippon Telegraph & Teleph	Taiwan Semiconductor Manu	HSBC Holdings PLC	Morgan Stanley Inst Lqudt	☆ Msci Eafe Dec19 Ifus 2019	DBS Group Holdings Ltd	Schneider Electric SE	NTT DOCOMO Inc	Novartis AG	Astellas Pharma Inc	GlaxoSmithKline PLC	Sanofi SA	Roche Holding AG Dividend	Total Stocks: 788 Share change since 08-31-19	Portfolio Analysis	007	22 94	2.3/	1.06	0.00	0.19	13	6.51
Large Mid	Giant	nt Style Market Cap		e SA		Ltd		Railway C	Corporacio	ings Ltd	aph & Telep	onductor N	s PLC	ey Inst Lqu	:19 Ifus 20	Idings Ltd	ctric SE	Inc		na Inc	ne PLC		AG Divide	08-31-19	l lysis ₀₉ .	anc	200	2.43	0.83	0.11	0.23	41	20.50
28.9 26.9	29.4	t Cap %						0	п		Ъ,	/lanu		dt	19										09-30-19	210	10	2.09	0.78	0.22	0.27	43	-17.95
	b Cyclical	Sector Weightings		Cnsmr Cyc	Comm Svcs	HIth Care	Comm Svcs	Industrl	Utilities	Real Est	Comm Svcs	Technology	Finan Svcs			Finan Svcs	Industrl	Comm Svcs	Hlth Care	Hlth Care	Hlth Care	Hlth Care	HIth Care	Sector		000	<u> </u>	2.59	0.75	0.00	0.19	49	10.16
at		% of Stocks		France	Japan	Japan	Norway	Japan	Spain	Hong Kong	Japan	Taiwan	United Kingdom	United States		Singapore	France	Japan	Switzerland	Japan	United Kingdom	France	Switzerland	Country		INEL ASSELS OIII	Iurnover Hate %	Income Katio %	Expense Ratio %	Capital Gains \$	Income \$	Total Rtn % Rank Cat	Capital Return %
	0.85	f Rel s Bmark 1		0.82	0.85	0.86	0.89	0.91	0.92	0.92	0.94			1.01	1.16	1.24	1.25	1.25	1.27			1.31	1.31	% Assets		Ξ	- 8	2 %	%	\$		ink Cat	%

M RNINGSTAR®	Foreign (% of Stock)	Stocks 98.7 Ot	Cash 1.3 Bc	Composition - Net	Historical Erngs 5.60	Cash Flow 6.90	Sales 4.70	Book Value 5.59	Long-Term Erngs 6.12	Growth Measures	-		Price/Cash Flow 3.59	Price/BOOK 1.U3	ngs			_	A		llem			- G
Mutual Funds	99.3	Other 0.1	Bonds 0.0		60 0.54	30 2.40	70 4.50	59 1.66	12 0.86	% Rel Category				0.79 N.80		Rel Cat		11 677	Avg \$mil:	Micro 2.5	Small 12.3		e	-
unds	France /	UK 12	ban	Country Exposure	Asia X Japan 29		UK/W. Europe 39	Regional Exposure		Utilities	 Hlthcare 	CnsmrDef	➡ Defensive	Technlgy	C Industri		CommSrvs	🕶 Sensitive			FinanSvcs		🏝 BasicMat	% Cyclical
8					Other					~	9	ω	15	ŝ	1	9	6	37.59		3 12	22.57	12.30	9.34	47.33
_		South Korea	na	% Stock	er	Latn America	N. America	% Stock		2.08 0.36	9.87 2.02	3.14 1.14				9.99 0.88	6.72 0.97						34 1.04	

Release date 10-31-2019 | Note: Portions of the analysis are based on pre-inception returns. Please read disclosure for more information

Growth Retirement (US Hood River Small-Cap

Performance 10-31-2019	-31-2019				
Quarterly Returns	1st Otr	2nd Otr	3rd Qtr	4th Qtr	Total %
2017	6.24	7.40	3.53	2.24	20.78
2018	1.77	8.32	11.67	-24.27	-6.78
2019	18.74	4.16	-8.54		15.48
Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-0.19				8.17
Std 09-30-2019	-14.34	I	Ι	Ι	7.58
Total Return	-0.19	12.32	8.76	14.17	8.17
+/- Std Index	-14.52	-2.59	-2.02	0.47	
+/- Cat Index	-6.59	-0.90	0.38	0.79	I
% Rank Cat	88	68	56	32	
No. in Cat	649	573	514	393	
		Š	Subsidized	Unst	Unsubsidized

30-day SEC Yield

7-day Yield

Performance Disclosure The Overall Morningstar Rating is based on risk-adjusted returns, derived from a weighted average of the three-, five-, and 10-year (if applicable) Morningstar metrics. The performance data quoted represents past performance and does not guarantee tuture results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when sold or redeemed, may be worth more or less than their original cost.

month-end, please call 800-497-2960. quoted herein. For performance data current to the most recent Current performance may be lower or higher than return data

Sales Charges Fees and Expenses

Front-End Load % Deferred Load %

NN

Fund Expenses				
Management Fees %			0.90	Ŧ
12b1 Expense %			NA	
Net Expense Ratio %			0.99	
Gross Expense Ratio %			1.04	Ltd Mo
Risk and Return Profile				_
	3 Yr	5Yr	10 Yr	
		514 funds	393 funds	
Morningstar Rating [™]	2☆	3☆	3☆	
Morningstar Risk	+Avg	+Avg	+Avg	
Morningstar Return	Avg	Avg	+Avg	Credit Qu
	3 Yr	5 Yr	10 Yr	
Standard Deviation	18.20	17.15	17.80	D 1
Mean	12.32	8.76	14.17	
Sharpe Ratio	0.64	0.52	0.81	BB
MPT Statistics	Standard Index		Best Fit Index	₿
Alpha	-4.	-4.64		Below B
Beta	1.	1.25		NR
R-Squared	68.79	79		Regional
12-Month Yield				America

Objective:	Tenure:	Manager:	Family:	Operations	
Growth	16.8 Years	Multiple	Hood River Capital Management		
Minimum Initial Purchase:	ISIN:	Ticker:	Base Currency:		Greater Asia

HRSIX US56170L5057

Incept:

03-03-2017

⊳ ≤F

\$538.62 mil

Purchase Constraints:

USD

Utilities

0.0

0.00

8

Total Assets: Type: Potential Cap Gains Exp

19.16%

nt	or's han	nd	real	Irns,				dized			-	7.58 8.17	ncept 8.17	ь.78 5.48	0.78	tal %]	
Non-US Stocks Bonds	Asset All Cash	Portfoli			-1.32	-2.86	-39.86		2008			۶				94		-	
US SLUCKS Non-US Stocks Bonds Other/Net Clefd	Asset Allocation % Cash	Portfolio Analysis 06-30-2019		1	7.96	15.96	42.42		2009			\mathbf{i}				86	Bronze " 09-30-2019	Rating TM	Morningstar Quantitative
	6-	sis 06-30		1	-4.51	9.51	24.58		2010			X				95	19 u		star Qua
	~ _	0-2019		Ι	-2.33	-7.35	-5.24		2011			Ż				96			antitativ
1.65 0.00	Net % 1.62			1	8.47	7.05	23.06		2012			8				86	5		
1.65 0.00	Long % 1.62			1	0.64	11.55	43.94		2013				<u> </u>			96	573US Fund Small Growth	***	Overall Morningstar Rating TM
0.00	Short %				2.96	-5.13	8.56		2014				<u> </u>			97	nd Small		lorninas
⊕ ① ⊕	Share Chg since 03-2019				2.18	-0.59	0.80		2015				}			97	Growth		tar Rati
1 38 9	Ð			1	2.18	1.54	13.50		2016			٢				96			na™ S
97,055 352,397 154 662	Share Amount			1	-1.38	-1.05	20.78	37.79	2017							8		S&P 500 TR USD	Standard Index
Sage Therape Eldorado Res FirstCash Inc	Holdings : 94 Total Stocks , 17 98% Turnover Ratio		676	59	2.53	-2.40	-6.78	33.78	2018				\$			88		TR USD	Index
Sage Therapeutics Inc Eldorado Resorts Inc FirstCash Inc	.ocks , 17 Tot ver Ratio		652		-3.14	-7.68	15.48	39.01	10-19		4k	10k	ZOK	60k 40k	100 80k	98	Growth TR USD	Russell 2000	Category Index
nc	Holdings : 94 Total Stocks , 17 Total Fixed-Income, 98% Turnover Ratio		No. of Funds in Cat	% Rank Cat	+/- Category Index	+/- Standard Index	Total Return %	NAV/Price	History	Performance Quartile (within category)		1	1	 arrowin of stored Betirement 	~	Investment Style Equity Stocks %	TRUSD		v Index Morningstar Cat
3.08 2.82 2.68	Net Assets %													Cap Growth				all Growth	r Cat

Long % Share Chg Share Chg Amount 94 Tatal Stocks, 17 Total Fixed-Income. 1.62 0.00 63-2019 Amount 94 Tatal Stocks, 17 Total Fixed-Income. 1.65 0.00 0.00 0.00 0.00 0.00 1.65 0.00 0.00 0.00 0.00 $97,055$ Sage Therappeutics Inc 1.00.00 0.00 \oplus 152,397 Eldorado Resorts Inc 0.00 Ang Index Cat \oplus 152,153 Kinsale Capital Group Inc \oplus Ang Index Cat \oplus 94,823 Chart Industries Inc 0.00 4.1 1.26 0.99 \oplus 231,301 MasTec Inc 0.00 4.1 1.26 0.99 \oplus 21,743 Costar Group Inc 0.743 Costar Group Inc $$
Chy Amount 19 Amount 19 97,055 352,397 154,662 182,704 150,153 500,582 94,823 636,388 636,388 636,388 231,301 20,743 111,241 64,300 175,420 119,083 86,675 Cyclical Basic Material: Consumer Cycl Consumer Cycl Cycl Consumer Cycl Cycl Cycl Cycl Cycl Cycl Cy
Holdings : 94 Total Stocks , 17 Total Fixed-I 98% Turnover Ratio Sage Therapeutics Inc Eldorado Resorts Inc FirstCash Inc Charles River Laboratories Amarin Corp PLC ADR MasTec Inc CoStar Group Inc Globant SA Euronet Worldwide Inc Merit Medical Systems Inc Conmed Corp Grand Canyon Education Ir Stical Is Ils
nncomme Inter 10 22.9 2.4 2.4 2.4 5.4 18.8



MFS Mid Cap Growth R6

Benchmark 1: Russell Mid Cap Growth TR USD Benchmark 2: S&P 500 TR USD

Morningstar Analyst Rating 03-26-19

4ai Silver

Morningstar Pillars	
Process	Positive
Performance	Positive
People	Positive
Parent	Positive
Price	Positive

Morningstar Analyst Rating Morningstar evaluates mutual funds based on five key pillars, which its analysts believe lead to funds that are more likely to outperform over the long term on a risk adjusted basis.

Analyst Rating Spectrum

😋 Gold

😇 Silver

😳 Bronze

Neutral

Negative

Pillar Spectrum

18,612	6	2.45	2.31	13.23	5 Yr Avg
17,067	9	4.60	2.70	19.51	3 Yr Avg
12,166	9	7.33	2.73	21.66	1 Yr
10,417	15	0.01	2.13	4.17	6 Mo
9,912	29	-3.31	0.26	-0.88	3 Mo
\$10,000	Cat	2	_	Return%	
Growth of	%Rank	+/- Bmark	+/- Bmark	Total -	Trailing
		- - - - +	J. 2.	0.00	2010
		_0.17	20 22	18 86	2010
1.21	-15.75	7.59	5.92	5.42	2018
26.39	5.04	5.10	7.06	6.94	2017
4.75	-1.19	4.51	2.13	-0.68	2016
4.60	4.67	-6.32	0.85	5.77	2015
Total	4th Qtr	3rd Otr	2nd Qtr	1st Otr	
			31-19	Performance 10-31-19	Perform
Neutral	0	itive	Negative		Positive

Tax Analysis 3 Yr (estimated) 5 Yr (estimated) 10 Yr (estimated) Tax Adj Rtn% 1) 17.75 1) 11.73 %Rank Cat 7 t Tax-Cost Rat 1.46 1.32 %Rank

. Cat 39

Versix Analytics Inc
Versix Analytics Inc
PerkinElmer Inc
Gopart Inc
Gopart Inc
Fiserv Inc
Gadence Design Systems In
Steris PLC
Roper Technologies Inc
HIS Markit Ltd
Steris PLC
Roper Technologies Inc
HIS Markit Ltd
Steris Cop
Wasdaq Inc
Mscl Inc
Service Now Inc
TarasUnion
Mscl Inc
Make-two Interactive Soft
Monolithic Power Systems

Industri

Real Est Industrl 10 Yr Avg 15 Yr Avg

Potential Capital Gain Exposure: 37% of assets

Morningstar's Take by Connor Young 03-26-19

advantages and support an upgrade of its Morningstar well-resourced management team and a sound approach. Recently lowered fees add to the strategy's MFS Mid Cap Growth benefits from an experienced and Analyst Rating to Silver from Bronze.

team remains solid despite the 2018 departure of comanager Matthew Sabel, who stepped down after at that strategy, using a similar approach but focusing on larger-cap stocks. The managers lean on MFS' deep run MFS Growth MFEGX; they've posted strong results a comanager in May 2011. Fischman and Gordon also bench of analysts to find and vet investment ideas. This took over in November 2008, and Paul Gordon became MTCAX. four-year stint to focus on running MFS Technology A talented team runs this strategy. Eric Fischman a

economic conditions. For example, they believe that MSCI MSCI has a strong brand and high switching competitive advantages and pricing power that will approach. They seek to identify firms that have drive long-term earnings growth, regardless of The managers execute a sensible and proven

Address:	MFS Series Trust IV	Minimum Purchase:	0\$	Add:	IRA: —
	Boston, MA 2199	Min Auto Inv Plan:		Add: —	
	800-225-2606	Sales Fees:	No-load		
Web Address:	http://www.mfs.com	Management Fee:	0.75% mx.	0.75% mx./0.65% mn.	
Inception:	01-02-13	Actual Fees:	Mgt:0.71% Dist:	Dist:	
Advisor:	Massachusetts Financial Services Company	Expense Projections:	3Yr:\$246 5Yr:\$428	5Yr:\$428	10Yr:\$9
Subadvisor:	None	Income Distribution:	Annually		

Ι						I							2009								Rating	Risk	Return	Historia		
I													2010							Highest	*****	Below Avg	Hiah	Historical Profile		
	1												2011								*	<u>6</u>	•	D		
I													2012													
1,190	58	-0.08	0.93									14.14	2013		مر											
1,332	59	-0.38	0.91	0.98	0.00	32	8.95	0.00	-4.74	-2.95	8.95	14.38	2014			ž	Ł									
1,327	37	-0.39	0.91	0.40	0.00	9	4.60	0.00	3.21	4.80	4.60	14.64	2015				\mathbf{k}									3 1
1,269	43	-0.14	0.90	0.78	0.00	55	4.75	0.00	-7.21	-2.58	4.75	14.56	2016			¢	5									Ticker
1,635	30	-0.05	0.86	1.41	0.00	31	26.39	0.00	4.56	1.12	26.39	16.98	2017					Å							0.0/0	Yield
1,991	33	-0.19	0.81	0.73	0.00	9	1.21	0.00	5.60	5.96	1.21	16.49	2018							\$					φυ,401 IIII	total
3,320	21	-0.01	0.74	0.00	0.00	12	30.32	0.00	7.16	2.77	30.32	21.49	10-19							Z	5					Total Assets
_	Turnover Rate %		_			Total Rtn % Rank Cat					Total Return %	NAV	History	Performance Quartile (within Category)	- 10.0		- 15.0 Benchmark 1	Full Investment Values of	 20.0 — Investment Values of 	Growth of \$10,000	- 25.0		Equity	Investment Style	ואוומ-רמה פוחאונו	Mstar Category

Katın	Kating and Kisk			
Time	Load-Adj	Morningstar	Morningstar	Morningstar
Period	Return %	Rtn vs Cat	Risk vs Cat	Risk-Adj Rating
1 Yr	21.66			
3 Yr	19.51	High	-Avg	****
5 Yr	13.23	High	-Avg	*****
10 Yr				
Incept	15.43			
Other Measures	easures	Standa	Standard Index	Best Fit Index
Alpha			4.6	3.6
Beta			0.96	0.88
R-Squared	red		80	94
Standar	Standard Deviation		12.99	
Mean			19.51	
Sharpe Ratio	Ratio		1.32	

Fidelity National Informa ⊕ Global Payments Inc
 ⊕ Bright Horizons Family So Share change since 08-31-19

Industrl Industrl Sector Cnsmr Cyc

YTD Ret %

Total Stocks: 94

Portfolio Analysis 09-30-19

that of the typical mid-growth Momingstar Category rival. This focus on sustainable long-term growth has portfolio's price multiples typically run higher than those of the Russell Mid Cap Growth Index, and annual since Fischman took the helm. typical mid-growth peer in all rolling three-year periods environments. In fact, the strategy has outperformed its helped the strategy thrive in various market portfolio turnover has hovered around 40%, less than they intend to hang on for the long haul. Indeed, the for firms with these durable growth characteristics, and passive investing. The managers are willing to pay up providers and that it stands to benefit from the rise in costs that will keep it a step ahead of other index

Current Investment Style

Sector Weightings

% 01

Rel Bmark 1

Technology Technology

Industrl Basic Mat Finan Svcs

Finan Svcs Technology

45.55 24.00 45.85 60.35 38.87 16.91 30.00

Value

Blend Growth

Market Cap Giant Large Mid Small

43.0 1.0

3.52 17.30 32.15 Stocks

1.30 2.27 1.15

1.45 1.31

0.93 0.22 0.39

Minim	Minimum Purchase:	\$0	Add: —	IRA: —
Min A	Min Auto Inv Plan:		Add: —	
Sales Fees:	Fees:	No-load		
Manag	Management Fee:	0.75% mx./0.65% mn	'0.65% mn.	
Actual Fees:	Fees:	Mgt:0.71% Dist:	Dist:	
npany Expeni	Expense Projections:	3Yr:\$246	5Yr:\$428	10Yr:\$9
	Income Distribution:	Annually		

	₿	unds	Mutual Fi	₩®	MORNINGSTAR® Mutual Funds	solely for informational st responsible for any	t advice; is provided te. Morningstar is no	e investmen e or accura their use.	is herein does not constitute nted to be correct, complet to, the data and analyses or	©2019 Morningstar. All Rights Reserved. The data and analyses herein does not constitute investment advice; is provided solely for informationa purposes; is not an offer to bury/sell a security; and is not warranted to be correct, complete or accurate. Morningstar is not responsible for any trading decisions, damages or losses resulting from, or related to, the data and analyses or their use.	©2) trad
žωc	 Other Foreign (% of Stock) 		% 20.55 7.51 13.42	0,	Profitability Return on Equity Return on Assets Net Margin	mn. 	0.75% mx/0.65% mn Mgt:0.71% Dist: 3Yr:\$246 5Yr:\$428 Annually		Management Fee: Actual Fees: Expense Projections: Income Distribution:	101-02-13 01-02-13 Massachusetts Financial Services Company None	No Ma 01- http
98.2	CashStocksBonds	Composition - Net		9.89 15.89 19.29	Sales Cash Flow Historical Erngs		\$0 Add:	. ü	Minimum Purchase Min Auto Inv Plan: Sales Fees:	MFS Series Trust IV Boston, MA 2199 800-225-2606	8 8 A
	0.00	Utilities	Rel Category	% 12.87 12.06	Growth Measures Long-Term Erngs Rook Value		יפתנועפ ופפא נ	e. comp eal.	arso inipressive, competitive rees cement uns strategy's appeal.	rearinitys growin, regaritiess or litions. For example, they believe that s a strong brand and high switching	lition
-0.2	10.13 1.29 14.84	 ↓ Detensive ↓ CnsmrDef ↓ Hlthcare 	1 1.31 4 0.76	21.81 0.54	Price/Cash Flow Dividend Yield %	growth peers. The strategy has a Below Average Morningstar Risk Rating, so risk-adjusted results are	ategy has a B	The stra sk Ratir	growth peers. The strategy has a Below Average Morningstar Risk Rating, so risk-adjusted results a	vsek to identify firms that have vantages and pricing power that will	vant
0.8	26.15 23.94		5 1.20 3 1.67	28.90 5.25 4.73	Price/Earnings Price/Book Price/Sales	start through February 2019, the strategy's 17.5% annualized return bested roughly three fourths of mid-	2019, the st ed roughly th	ebruary Im best	start through F annualized retu	ers execute a sensible and proven	Jers
0.2	1.15 0.47	CommSrvs Energy	Rel Category		Value Measures	e Fischman took the helm. The team has done well here. From Fischman's	ne helm. e well here. I	ז took th has don	since Fischman took the helm. The team has done well h	itthew Sabel, who stepped down after a to focus on running MFS Technology	to fo
1.3 0.9	4.66 51.71		Avg \$mil: 17.419	1, A 4		environments. In fact, the strategy has outperformed its twoical mid-growth beer in all rolling three-year beriods	the strategy er in all rolling	In fact, wth per	environments. typical mid-gro	sts to find and vet investment ideas. This solid despite the 2018 departure of	sts to solid
1.4	17.30 6.67		Small 1.0		Ilsm2	rival. This focus on sustainable long-term growth has helped the strategy thrive in various market	stainable long	s on sus ateav th	rival. This focus on sustainable long-term gr helped the strategy thrive in various market	, using a similar approach but focusing tooks. The managers lean on MFS' deen	tock
1.3	32.15 3.52	Cyclical BasicMat	Giant 0.0 Large 43.0		biM egne.	portfolio turnover has hovered around 40%, less than that of the typical mid-growth Morningstar Category	hovered arou growth Morr	, /er has l cal mid	portfolio turnov that of the typi	h MFEGX; they've posted strong results	h Ma
				S		A, and annual			טי נוופ וועפספוו זעווע כמף טוטיאנוו ווועפא, מווע מווועמו		VGIII

-0.02 0.25

1.26 0.85

2.0 98.0 0.0 3.8

31

Industrl Industrl Industrl Hlth Care

Cnsmr Cyc

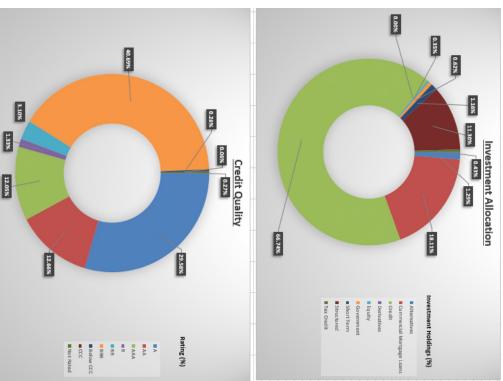
As of: 06.30.2019

Nationwide Fixed Account

(Group annuity contract issued by Nationwide Life Insurance Company 1)

Product Profile

provide a low-risk, stable investment option offering consistently competitive returns for retirement plan investors. The Nationwide Fixed Account is a General Account Product that seeks to



Top 10 General Account Credit Exposures	
Company	% of Assets
BB&T Corp	0.50%
Bank of America Corp	0.47%
Wells Fargo & Co	0.40%
AT&T Inc	0.39%
Oracle Corp	0.39%
MICROSOFT CORP	0.39%
Apple Inc	0.37%
Union Pacific Corp	0.37%
United Technologies Corp	0.37%

♪ ^ ^ + 1 +	Nationwide Life Insurance Co. Rating ³	Market to Book Ratio ² : 105%	6.38 years	Effective Duration:	9.1 years	Average Weighted Life:	11.3 years	Average Maturity:	A-	Average Quality:	4,161	Total Number of Holdings:	\$42.71 billion	Total Net Assets:	1/10/1931	Inception Date:	General Account Profile	
----------------	---	---	------------	---------------------	-----------	------------------------	------------	-------------------	----	------------------	-------	---------------------------	-----------------	-------------------	-----------	-----------------	-------------------------	--

Investment Management

strong risk-adjusted returns. risk management framework, to provide diversification and a disciplined, research-driven approach, supported by a robust capabilities, and broad market cycle experience. The team uses professionals with deep market knowledge, multi-asset class The General Account is managed by a team of investment

your account, this information can be found on your statement, on the web at NRSFORU.com or contact Customer Service at 1-877-677-3678. change each quarter. To determine the rate currently being credited to Crediting Rate: The interest rate credited in the fixed account can

General Account does not imply ownership by plan participants investing in the Fixed Account or by plan sponsor as the owners of the group annuity ¹ The Nationwide Fixed Account is backed by the General Account of Nationwide Life Insurance Company. Information about the securities held in the

0.36%

Verizon Communications Inc

guaranteed rate may be higher or lower. Please contact the Customer Service Center for assistance.
Yields quoted do not reflect any asset management charges that may apply to your plan. For more information about asset management charges that may apply, contact the Customer Service Center for assistance.
Your contract may contain liquidation (exchange and/or transfer) restrictions. Please contact the Customer Service Center for assistance.
The unregistered group variable and fixed annuity contracts are issued by Nationwide Life Insurance Company, Columbus, OH. For more information about the group variable annuity contract issued to your plan, please contact your Plan Sponsor.
Customer Service Center: 1-877-677-3678
Definitions
Average Quality (AQ): the book value weighted average quality rating of the portfolio. The AQ of this investment portfolio is calculated using the second lowest of four (including internal), median of three, lowest of two, or one ratings for each security including but not limited to the following NRSROs: S&P, Moody's, Fitch, and internal ratings. Commercial Mortgage Loans, Asset Backed Securities, Commercial Mortgage Backed Securities will only use internal rating.
Average Maturity (AM): the book value weighted length of time (in years) to the stated maturity for fixed-income securities. Since this measure ignores the possibility of pre-payment, it generally overstates the average length of time to return of principal. The AM of this investment portfolio is based on scheduled maturities and does not reflect prepayments.
Average Weighted Life (AWL): for debt securities, the dollar-weighted average time until the return of all principal in years. AWL for this investment portfolio is weighted by book value.
Effective Duration: effective duration specifically takes into account the way changes in yield will affect expected cash flows. It takes into account both the discounting that occurs at different interest rates as well as changes in cash flows.
Market to Book Ratio: market to book ratio is equal to market value plus accrued income divided by book value.
Exchange: an exchange is the movement of money between the Nationwide Fixed Account and any other investment option available to the plan.
Transfer: a transfer is the movement of money between product providers within the same plan or another financial institution.

the fixed account will fluctuate quarter to quarter. Guarantees are subject to the claims paying ability of Nationwide Life Insurance Company. The yields and total returns are for the standard Nationwide Retirement Solutions fixed account. If your plan is not within a standard offering the

Performance data quoted represents past performance. Past performance is no guarantee of future results. The quarterly declared rate of return on

received.

³ These ratings and rankings reflect Rating Agency assessment of the financial strength and claims-paying ability of Nationwide Life Insurance Company and are subject to change at any time. They are not intended to reflect the investment experience or financial strength of any variable account, which

is subject to market risk. Because the dates are only updated when there is a change in the rating, the dates reflect the most recent ratings we have

² The market to book ratio is specific to the Nationwide Life General Account and represents client assets on an aggregate basis. However, each client

contract experiences its own ratio that differs from the aggregate.

is not a mutual fund.

contract. The Nationwide Fixed Account is backed solely by the claims paying ability of Nationwide Life Insurance Company. This investment portfolio

Release date 10-31-2019 | Note: Portions of the analysis are based on pre-inception returns. Please read disclosure for more information.

Sterling Capital Bond R6 (USD)		Total Return Morningstar unantitative Neutral ^a	Morningstar Qua Rating TM Veu†rol ^o	ntitative	Uverall Morningstar Kati 상승수수수 <i>360</i> US Fund Intermediate Core Bond	Intermedia	ng	Standard Index BBgBarc US Agg Bond TR USD	J BBgBarc Bond TR	y Index Morningstar Cat US Agg US Fund Intermediate USD Core Bond	at nediate
Performance 10-31-2019 Quarterly Returns 1st Otr	2nd Otr 3rd Otr 4th Otr Total %	8	98	94 97		97	95	97 98	96	Investment Style Fixed-Income	
2017 <i>0.99</i> 2018 <i>-1.40</i> 2019 3.23	<i>1.62 1.02 0.64 4.33</i> -0.15 0.24 1.06 - <i>0.27</i> 3.53 2.19 9.59								100k 80k 60k		Return
11y 119	5Yr 10Yr 								20k	Hond H6 17,492 — Category Average 15,670 — Standard Index	
+/- Std Index 0.13 +/- Cat Index 0.13	3.81 3.00 4.34 5.00 0.52 0.42 0.62 0.52 0.42 0.62									16,123	
	з15									Performance Quartile (within category)	
No. in Cat 410	360 315 241	2008 2009	09 2010	2011 2012	2013	2014 2015	5 2016	2017 2018	10-19	History	
7-day Yield 11-05-19 30-day SFC Yield 09-30-19	Subsidized Unsubsidized 3.12 ¹ 2.55 ¹ 2.33	2.54		6.73 6.14	-0.97					NAV/Price Total Return %	
סטייטסי אבעי דופוע עס-סטייוס 1. Contractual waiver; Expires 01-31-2020 Performance Disclosure	-31-2020	-2.70 -2.70	5.77 1.44 5.77 1.44 	-1.11 1.93 -1.11 1.93 	1.05 1.05	0.03 -0.01 0.03 -0.01 	1 1.10 1 1.10 	0.79 -0.28 0.79 -0.28 	28 0.75 28 0.75 	+/- Standard Index +/- Category Index % Rank Cat	
The Overall Morningstar Rating is l derived from a weighted average o (if applicable) Morningstar metrics.	The Overall Marningstar Rating is based on risk-adjusted returns, derived from a weighted average of the three-, five , and 10-year (if applicable) Morningstar metrics.			-2019		<u> </u>		<u> </u>	414	No. of Funds in Cat	
Ine performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an invest.	The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's		on %	Net %			Share Chg S since Arr 08-2019	Share Holdin Amount 0 Tota 62% T	Holdings : O Total Stocks , 405 Total Fixed-Income, 62 % Turnover Ratio		Net Assets %
shares, when sold or redeemed, may be worth more or less th their original cost. Current performance may be lower or higher than return data	shares, when sold or redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than return data		Ś	0.00 96.05	96.05			62 mil Unite 36 mil Unite	United States Treasury Notes 2.5% United States Treasury Notes 2.62%	ry Notes 2.5%	4.49 2.63
month-end, please call 800-228-1872 or visit	month-end, please call 800-228-1872 or visit	Total		100.00	100.00	0.00			Ford Credit Auto Owner Trust 3.19%) ner Trust 3.19%	1.18
Fees and Expenses	2.	Equity Style	Portfo	Portfolio Statistics	Port Rel	Rel		16 mil Feder 13 mil Hertz	Herty Fleet Lease Funding I n 2 7%	Hertz Fleet Lease Funding Lo 2 7%	1.14 N 91
Sales Charges	2	Value Blend Grov	ے اللہ P/E R	P/E Ratio TTM		9			Enterprise Fleet Financing, LLC 3.	ncing, LLC 3.	0.89
Deferred Load %	NA			P/B Ratio TTM		00			United States Treasury Notes 2.5%	rrgage Associat ry Notes 2.5%	0.86
Fund Expenses			Ilem2						Federal National Mortgage Associat	rtgage Associat	0.83
Management Fees % 12b1 Expense %	0.3/)() Fixed-Income Style						12 mil AME	AMERICREDIT AUTOMOBILE RECE	AMERICREDIT AUTOMOBILE RECEIVABLES	0.80
Net Expense Ratio %	0.35		 ^{®iH} Avg E	Avg Eff Duration		5.89	10		Morgan Stanley Cap Tst 2018-H3 4	I Tst 2018-H3 4	0.79
Gross Expense Ratio %	0.5/			Avg Wtd Coupon Avg Wtd Price		3.62 106.12	10	10 mil Feder	Federal Home Loan Mortgage C	Federal Home Loan Mortgage Corpora	0.74
	3 Yr 5 Yr 10 Yr 360 funds 315 funds 241 funds						Sector Weightings				Rel Std Index
Morningstar Rating TM Morningstar Risk	5차 5차 4차 Ava Ava Ava	な Credit Quality Breakdown 09-30-2019	Breakdown 09	-30-2019			 Basic Materials 	terials			
Morningstar Return	High +					4.57	Consumer Cyclical Financial Cervices	r Cyclical Servines			
Standard Deviation	3 Yr 5 Yr 10 Yr <i>3.08 2.86 2.85</i>	85 ¥ BBB						ite			
Mean	3.66	R BB						Pation Con	1000		
Sharpe Ratio	0.71 0.92 1.31					0.07		Energy	TUES		
MPT Statistics	Standard Index Best Fit Index					0.00	Industrials	N S			
Beta	0.92 -	— Regional Exposure Americas	sure	Stocks %	Rel S	Rel Std Index		e		1	
12-Month Yield	3.19%		pe	1			_	Consumer Detensive Healthcare	-		
Potential Cap Gains Exp							Utilities			I	
Operations Family: Ste	Sterling Capital Funds	Base Currency:	×	USD		P	Purchase Constraints	straints:	A		
er:	Multiple 11.8 Years	Ticker: ISIN:		STRDX US85918D6242	D6242		Incept: Type:		02-0	02-01-2018 MF	
	-										

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Objective:

Growth and Income

Minimum Initial Purchase:

8

Total Assets:

\$1,485.62 mil

Rowe Price Instl Large Cap Growth

Mstar Category

Investment Style Equity

 Investment Values of Growth of \$10,000 Fund

Benchmark 1: Russell 1000 Growth TR USD Benchmark 2: S&P 500 TR USD

Morningstar Analyst Rating 09-18-19

🕃 Silver

Morningstar Pillars	
Process	Positive
Performance	Neutral
People	Positive
Parent	Positive
Price	Positive

Morningstar Analyst Rating

Morningstar evaluates mutual funds based on five key pillars, which its analysts believe lead to funds that are more likely to outperform over the long term on a risk-adjusted basis.

Analyst Rating Spectrum

🕶 Gold

😨 Silver

😳 Bronze

Neutral

Negative

Pillar Spectrum

C Positive		Negative	tive	0	O Neutral
Perform	Performance 10-31-19	31-19			
	1st Otr	2nd Otr	3rd Otr	4th Otr	Total
2015	5.49	0.79	-4.86	8.81	10.08
2016	-6.44	0.00	8.03	1.76	2.85
2017	10.70	8.06	7.38	7.29	37.82
2018	4.96	6.76	6.82	-12.85	4.32
2019	14.68	3.00	-1.11		I
Trailing	Total	+/- Bmark	+/- Bmark	%Rank	Growth of
	Return%	_	2	Cat	\$10,000
3 Mo	-0.35	-2.39	-2.78	70	9,965
6 Mo	0.97	-3.50	-3.19	70	10,097
1 Yr	12.98	-4.12	-1.34	71	11,298
3 Yr Avg	20.86	1.94	5.95	6	17,653
5 Yr Avg	14.46	1.03	3.69	5	19,649

Rating and Risk 1,680 2,560 0.27 61

0.21 60

3,202 0.19 58

5,698 0.43 40

Tax Analysis 3 Yr (estimated) 5 Yr (estimated) Potential Capital Gain Exposure: 44% of assets 10 Yr (estimated) 19.01 12.72 15.46 69 Tax-Cost Rat 1.53 1.52 0.80 %Rank Cat 48 41 28

10 Yr Avg 15 Yr Avg

16.39 11.43

0.98 0.94

2.70 2.38

യവ

45,632 50,711

Tax Adj Rtn%

%Rank Cat

an edge, earning a Morningstar Analyst Rating of Silver. T. Rowe Price Institutional Large Cap Growth maintains Morningstar's Take by Katie Rushkewicz Reichart 09-18-19

60 holdings, the strategy is arguably well-positioned to take advantage of the analysts' top ideas, more so than earnings potential over the next three years. At around expertise and has demonstrated a thoughtful, wellhis first diversified charge, which he's run since January Price's analyst team to find firms with double-digit executed approach that draws on the depth of T. Rowe 2017. He got up to speed quickly in areas outside his Manager Taymour Tamaddon has adjusted well to

strategy has gotten ahead with big bets on Amazon.com AMZN and Boeing BA, and Tamaddon he's using the analyst team well and isn't overly reliant The strategy is off to a good start. Its 21.8% annualized gain on Tamaddon's watch through August on his previous healthcare experience for success. The been strong across the board during his tenure rather Index's 18.8%. It's encouraging that stock-picking has its more diversified large-growth siblings. than clustered in one or two sectors, indicating that 2019 was well ahead of the Russell 1000 Growth

0.57	0.00	0.02	5	53.15	0.25	26.94	16.19	53.40	14.12	2009			2				Rating	Risk	Histori		Lap	202
	0.00	_	_			_			16.38	2010			X			Highest	*****	Above A	Historical Profile	2	cap Growin	
0.57	0.00	0.03	44	-1.58	0.18	-3.51	-4.04	-1.40	16.12	2011			X				*,	Ŋġ	e			5
0.57	0.00	0.07	25	17.12	0.43	1.55	2.30	17.55	18.88	2012) }								
0.56	0.00	0.01	ω	44.39	0.05	12.05	10.95	44.44	27.26	2013			,	ž								
0.56	2.08	0.02	66	8.65	0.07	-4.97	-4.33	8.72	27.48	2014					}							
0.56	1.35	0.01	7	10.04	0.04	8.69	4.41	10.08	28.89	2015				_(ł						TR	Ę
0.56	0.41	0.07	52	2.61	0.24	-9.11	-4.22	2.85	29.24	2016				(5						TRLGX	
0.56	3.33 3	0.09	ω	37.52	0.31	15.99	7.61	37.82	36.91	2017					ļ						0.2%	Yield
0.56	2.73	0.10	7	4.05	0.27	8.70	5.83	4.32	35.70	2018							Ş				\$15,529 mil	Total
0.56	0.00	0.00	58	19.66	0.00	-3.50	-7.11	19.66	42.72	10-19							}				29 mil	Total Assets
Expense Rati	Capital Gains	Income \$	Total Rtn % F	Capital Retur	Income Retu	+/- Bmark 2	+/- Bmark 1	Total Return	NAV	History	Performance (within Catego	- 10.0		1	- 30.0 Fund	- 50.0 Growth of \$1	60.0		Equity	Investment S	Large Growth	Mstar Catego

	30 00			Moon
	13.52		Standard Deviation	Standa
96	83		red	R-Squared
1.01	1.02			Beta
1.0	5.0			Alpha
Best Fit Index	Standard Index	Standa	Other Measures	Other N
			10.60	Incept
*****	+ Avg	High	16.39	10 Yr
****	+ Avg	High	14.46	5 Yr
****	Avg	High	20.86	3Yr
			12.98	1 Yr
Risk-Adj Rating	Risk vs Cat	Rtn vs Cat	Return %	Period
Morningstar	Morningstar	Morningstar	Load-Adj	Time

Sharpe Ratio NEd 1.35

also made good calls on less prominent as Red Hat RHT and Total System Servic both spiked following acquisition announcements. Tamaddon has also kept an eye on risk, shielding

names to the portfolio for ballast provided a cushion in the late-2018 market pullback and helped the strategy his predecessor benchmark, a reversal from its typical behavior under hold up well versus the Russell 1000 Growth the strategy in pullbacks. Adding a few defensive

date through August. Reasonable fees work in investors' favor, and the parent company and analyst team remain topnotch. The strategy has staying power. especially with the fund up double digits for the year to election. An off year isn't overly worrisome, though, policy has taken center stage well ahead of the 2020 as presidential-candidate rhetoric about healthcare Hanging on to managed-care names has hurt in 2019 Performance won't always be perfect, though.

	Funds	
Management Fee: Actual Fees: Expense Projections: Income Distribution:	Minimum Purchase: Min Auto Inv Plan: Sales Fees:	
0.55% Mgt:0.55% Dist:— 3Yr:\$179 5Yr:\$3 Annually	\$1000000 Add: Add: \$1 No-load	
Dist: 5Yr:\$313	Add: Add: \$100	
10Yr.\$701	IRA:	

Inception:

10-31-01

T. Rowe Price Associates, Inc www.troweprice.com 800-638-8797 Baltimore MD 21202 . Rowe Price Institutional Equity

Advisor: Web Address

Subadvisor

None

Address:

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				1					Fund		
X	5	ł		(20.0	- Investment Values of Benchmark 1	lues of	
								10.0			
									Performance Quartile (within Category)	artile	
2013	ω	2014	2015	2016	2017	2018	10-19	Ŧ	History		
27 26	26	27 48	28 89	29 24	36 91	35 70	42 72	z	NAV .		
44.44	4	8.72	10.08	2.85	37.82	4.32	19.66	7	Total Return %		
10.95	95	-4.33	4.41	-4.22	7.61	5.83	-7.11	+	+/- Bmark 1		
12.05	G	-4.97	8.69	-9.11	15.99	8.70	-3.50	+	+/- Bmark 2		
0	0.05	0.07	0.04	0.24	0.31	0.27	0.00	5	Income Return %	%	
44.39	, s	8.65	10.04	2.61	37.52	4.05	19.66	+ C	Capital Heturn %	0	
	3 0	66	/	29.02	8 8 4	/	88	0	lotal Htn % Hank Cat	k Cat	
	0.00	0.02 2.08	1.35	0.41	3.33	0.10 2.73	0.00	ດ =	Income \$ Capital Gains \$		
0	0.56	0.56	0.56	0.56	0.56	0.56	0.56	Ð	Expense Ratio %	6	
0	0.07	0.06	0.06	0.24	0.24	0.42	0.26	+ - -	Income Ratio %	-	
74	f	Ę	ť	10	, c	د			ועוווטעפו וומנפ עמ		
4											
Star	Morn	Morningstar Rick-Adi Bating	Total S Share c	Total Stocks: 63 Share change since 06-30-19	Total Stocks: 63		Sector		YTD Ret %	% Assets	
00,		ia) na ng	() Am	Amazon.com Inc	Inc		Cnsmr Cyc	r Cyc	18.29	8.02	
₽vg	*	****	① Mio	Microsoft Corp	q		Technology	ology	42.51	7.45	
Åg	*	****	\sim	Boeing Co			Industri	. =	7.31	6.17	
Avg	*	****	D (L) Aln	Facebook Inc A Alnhahet Inc A	⊳ ⊳		Technology	ology	46.20 20.46	л 6.03 г ол	
			() Vis	Visa Inc Class A	A		Finan Svcs	Svcs	36.13	5.21	
	Be	Best Fit Index	① Glo	Global Payments Inc	nts Inc		Industrl	Ξ	64.07	2.44	
		1.0		Stryker Corp	5		Hth Care	are	38.97	2.44	
		1.01]) ([∆Iił	Alphabet Inc Class C Alibaba Groun Holdir	Alphabet Inc Class C Alihaha Groun Holding I td	1	Cosmr Cvc	rCyr	21.08	2.35	
		Ę		Intuit Inc	c		Technology	ology	31.80	2.29	
				icent Holdi	Tencent Holdings Ltd ADR	DR	Technology	ology		2.22	
			1) (I) Beo	Becton, Dickinson a	Becton, Dickinson and Co	Ö	Hith Care	àre d	14.64	1.93	
			() Ap	Apple Inc			Technology	ology	59.14	1.87	
			~	Salesforce.com Inc	mlnc		Technology	ology	14.25	1.73	
t hol	ding	t holdings such	D () Cin	Dollar General Corp Ciona Corn	l Corp		Unsmr Det Hith Care	r Uet	-6 01	1.65	
ICes	nont	ICES ISS, WHICH		HCA Healthcare Inc	ire Inc		HIth Care	are	8.27	1.55	
risk, shield	shie	risk, shielding		Aptiv PLC			Cnsmr Cyc	r Сус	46.52	1.52	
		c									

MORNINGSTAR® MI	Return on Equity Return on Assets Net Margin	Profitability	Historical Erngs 32.83	Flow	Sales 12.29	Erngs	Growth Measures % Rel	0 U.//			Price/Book 5.63	Price/Earnings 26.75	Value Measures Rel	ren'na i	Avg \$mil:		Small	S P!		iliant	Value Blend Growth Market Cap	Current Investment Style
Mutual Funds	26.70 10.72 19.19	%	1.32	1.02	1.09 Composition - Net	1.12	Rel Category 🔽 Utilities	÷	T	ţ		Ф	Rel Category 🔥 Energy	= 0)	٤	Ð	16	Ð	36.7 💀 BasicMat	58.3 % Cyclical		Sector
8	(% of Stock)	Other	 Bonds 	Cash	-		2.10	13.91		18.09	39.93	12.04	0.48	0.02	52.47	0.00	9.73	19.18	0.53	29.44	Stocks Br	% of
		0.0	0.0	nn 1.0				0.95	0.40	-0.02	1.26	1.11	1.85	0.00	0.96	0.00	1.23	1.36	0.47	1.14	Bmark 1	Rel

Vanguard Target Retirement 2015 Inv

Benchmark 1: Morningstar Lifetime Mod 2015 TR USD Benchmark 2: Morningstar Mod Tgt Risk TR USD

🕄 Gold Morningstar Analyst Rating 04-25-19

Morningstar Pillars

	Process Process
	Positive
People	Positive
Parent	Positive
Price	Positive

Morningstar Analyst Rating Morningstar evaluates mutual funds based on five key pillars, which its analysts believe leaft of funds that nee more likely to outperform over the long term on a risk-adjusted basis.

Analyst Rating Spectrum

🕶 Gold

😇 Silver

😳 Bronze

Neutral

Negative

Pillar Spectrum

	7.50 0.22		7.02 -0.13	10.88 -0.92	-0.18	2.03 -0.01	Return% 1 2	Trailing Total +/- Bmark +/- Bmark %	3.05	-0.52 0.52 1.76	3.38 2.33 2.61	2.77	2.03 -0.64 -3.87		Performance 10-31-19	Positive O Negative
81 25	_	77 38					2 Cat	ark %Rank	38			77 -0.55	~			0
23,833		12,916		11,088	10,408	10,203	\$10,000	: Growth of				6.16		. Total		Neutral

Tax Analysis 3 Yr (estimated) 5 Yr (estimated) Potential Capital Gain Exposure: 25% of assets 10 Yr (estimated) Tax Adj Rtn% 1) 5.33 1) 3.66 9d) 6.32 46 24 t Tax-Cost Rat 1.58 1.51 1.10 : %Rank Cat 62 52 21

%Rank Cat

Morningstar's Take by Jason Kephart 04-25-19

The low-cost, straightforward approach behind the Vanguard Target Retirement series of target-date funds continues to earn the series a Morningstar Analyst Rating of Gold.

options, if no longer the cheapest, over the long term. standing commitment to low costs inspires confidence that the series will continue to be one of the cheaper compression of target-date funds is likely to continue. meeting the demand for low costs, the fee cheaper than the median comparable peer at year-end now charges 0.09%, which was 0.41 percentage points class offered by peers. The series' cheapest share class points cheaper than the median for the cheapest share expense ratio, which was almost 0.60 percentage greatest advantage versus peers has been its low costs. In 2008, for example, the series had a 0.20%While its fee edge is on the decline, Vanguard's long-2018. Given target-date providers' heightened focus on Over the past decade, this target-date fund series

The series' overall stock/bond split across the glide path has been in place since mid-2006. For the most part, it sticks close to the peer norm. The glide path

ent 2015 Inv	15	ΝV				VT)	Ticker VTXVX	Yield 2.3%	Total Assets \$15,723 mil	Assets 3 mil	Mstar Category Target-Date 2015
Historical Profile Return Above Avg Bist Balow Avg	al Profile Above Avg										Investment Style Equity
Rating	Above Avg				}	}	5		Ş	Z	20.0 Growth of \$10,000 — Investment Values of
\$	ξ	<u>}</u>	}	<u>}</u>	<u>۲</u>						Fund 15.0 — Investment Values of Benchmark 1
											10.0
											Performance Quartile (within Category)
2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	10-19	History
11.31	12.42	12.30	13.38	14.77	15.29	14.23	14.51	15.33	13.86	15.57	NAV
0.08	-0.42	-1 19	-0 13	2 50	1 01	-U.46	-0.94	0 11	-2.97	-1 20	lotal Return % +/- Rmark 1
-0.47	0.14	1.12	-0.68	-1.31	1.67	1.33	-2.41	-3.15	1.78	-2.65	+/- Bmark 2
2.89	2.44	2.52	2.42 8 0 /	11.95	1.92	1.96	2.03	2.19	2.42 5.40	0.00	Income Return %
76	34	19	34	21	ω	11	56	44	20	61	Total Rtn % Rank Cat
0.28	0.28	0.31	0.30	0.26	0.28	0.30	0.29	0.32	0.37	0.00	Income \$
0.00	0.02	0.02	0.02	0.09	0.17	0.70	0.31	0.53	0.64	0.00	Capital Gains \$
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Ι	I	Expense Ratio %
3.31	2.62	2.24	2.59	2.17	1.99	1.95	1.96	2.02	2.39	2.77	Income Ratio %
37	19	27	13	26	10	16	9	7			Turnover Rate %
10,405	13,354	14,394	17,623	20,814	21,957	18,126	16,972	17,405	15,154	15,723	Net Assets \$mil
Rating and Risk	nd Risk					Port	folio An	Portfolio Analysis 09-30-19	-30-19		

	•			
Time	Load-Adj	Morningstar	Morningstar	Morningstar
Period	Return %	Rtn vs Cat	Risk vs Cat	Risk-Adj Rating
1 Yr	10.88			
3 Yr	7.02	Avg	-Avg	***
5 Yr	5.25	Avg	-Avg	****
10 Yr	7.50	+ Avg	-Avg	****
Incept	6.18			
Other N	Other Measures	Standa	Standard Index	Best Fit Index
Alpha			0.7	0.4
Beta			0.67	0.80
R-Squared	red		95	66
Standa	Standard Deviation		4.58	
Mean			7.02	
Sharpe Ratio	Ratio		1.14	

the norm, leaving investors more at risk of a bear market near the retirement date. equity exposure; both 6 percentage points higher than 59% equity exposure and at retirement it has 50% peaks. Five years from retirement, the glide path has account balances can be expected to be near their most from the peer average near retirement when retirement. The series' equity glide path deviates the years to retirement and continues to decline until arriving at a 30% equity stake seven years after starts with a 90% equity exposure until a fund hits 25

bonds low, but it also means the performance of the U.S. dollar can have a big impact on returns, particularly when international bonds have historically low yields, like now. The currency hedge keeps the volatility of the foreign that tracks developed-markets debt for the exposure. bonds as peers. It uses a currency-hedged index fund stands out for its roughly double allocation to foreign From a sub-asset-class perspective, the series'

position - Ne

Cash
 Stocks
 Other

1.1 37.2 61.3 0.3 < • 11 | CnsmrDef Hlthcare Utilities

23.49 8.43 11.67 3.39

1.01 1.00 1.09 0.82

Defensive

Foreign 39.7 (% of Stock)

	Dist:	Mat:0.00% Dist:	Actual Fees:	10-27-03	
	DISU:	NIGL:0.00%	Actual rees:	10-27-03	
		0.00%	Management Fee:	www.vanguard.com	SS:
		No-load	Sales Fees:	800-662-7447	
	Add:		Min Auto Inv Plan:	Valley Forge, PA 19482	
IRA: —	Add: \$1	\$1000	Minimum Purchase:	Vanguard Chester Funds	

Inception:

Advisor: Web Addres

Subadvisor

1.03 1.26	5.02 11.23 18.65	Energy Industrl Technlgy	Industri Inchnlg	43,420	Avg \$mil:	Mid 18.0 /	Compo
1.03	3.35 5.02	CommSrvs Enerav	1	0.8 43 420	Micro		Large
1.12	4.41 38.25	Sensitive		5.4	Small	4	Market Cap % Giant 4
1.03	17.03	FinanSvcs	Hina Pro	0.92	9.38	Historical Erngs	Histor
1.11	11.98	CnsmrCyc		3.23	7.88	Flow	Cash Flow
1.09	4.85	BasicMat		-0.80	4.17		Sales
0.90	38.27	lical	-	-0.95	4.34	Book Value	Book Value
Rei Bmark 1	% or Stocks	s	sector Weightings	Rel Category		Growth Measures	Growth
	d as of 09-:	figure provided by fund as of 09-30-19	figure pr	0.97 0.98	7.65 2.52	Price/Cash How Dividend Yield %	Price/(Divide
2.39%		Coupon	Avg Wtd Coupon	0.93	1.49	Sales	Price/Sales
Λ.0 TIS		Credit Ouality	Avg Ell IV	0.95	10.20 2.07	riice/Rook	Price/Book
7 E Vro		Eff Duration ¹	Avg Eff [Rel Category		Value Measures	Value N Dricco /
	_	High	Quality:		ap	Large-Cap	Size:
		Fixed-Income Style Duration: Moderate	Fixed-Inc Duration:			Style Blend	Equity Style Style: B
% Assets	Value \$000	Amount 000		Date of Maturity	le: 0	Total Fixed Income: 0	Total F
0.00	Ι			Ð	Cmt Market Liquidity Rate	nt Market L)) Cm
13.05				U	Vanguard Shrt-Term Infl-P	nguard Shr	⊕ Var
15.05					Vanguard Total Intl Bd Id	nguard Tota	⊕Var
15.16					Vanguard Total Intl Stock	nguard Tota	⊕ Var
22.67				4	Vanguard Total Stock Mkt	nguard Tota	① Var
34.07				rke	Vanguard Total Bond Marke	nguard Tota	⊕Var
% Assets	YTD Ret %		Sector		08-31-19	Iotal Stocks: U Share change since 08-31-19	Share of
				30-19	Portfolio Analysis 09-30-19	folio Ana	Port
	Net Assets \$mil	Net As	15,723	15,154	17,405	16,972	18,126
	Turnover Rate %	Turnove	I		7	9	16
	Income Ratio %	Income	2.77	2.39	2.02	1.96	1.95
-	Expense Ratio %	Expens	Ι		0.00	0.00	0.00
	Capital Gains \$	Capital	0.00	0.64	0.53	0.31	0.70

Vanguard Target Retirement 2020 Inv

Morningstar Analyst Rating 04-25-19 Benchmark 1: Morningstar Lifetime Mod 2020 TR USD Benchmark 2: Morningstar Mod Tgt Risk TR USD

🕄 Gold

Morningstar Pillars

in a line of the second se	
Process	Process Process
	Positive
People	Positive
Parent	Positive
Price	Positive

Morningstar Analyst Rating Morningstar evaluates mutual funds based on five key pillars, which its analysts believe leaft of funds that nee more likely to outperform over the long term on a risk-adjusted basis.

Analyst Rating Spectrum

🕶 Gold

😇 Silver

😳 Bronze

Neutral

Negative

Pillar Spectrum

Positive		Negative	tive	0	Neutral
Performance 10-31-19	ance 10-:	31-19			
	1st Otr	2nd Otr	3rd Otr	4th Otr	Total
2015	2.18	-0.58	-4.81	2.71	-0.68
2016	1.73	1.99	3.27	-0.18	6.95
2017	4.10	2.79	3.14	3.36	14.08
2018	-0.54	0.61	2.36	-6.50	-4.24
2019	7.82	3.21	1.19		
Trailing	Total -	+/- Bmark	+/- Bmark	%Rank	Growth of
	Return%	_	2	Cat	\$10,000
3 Mo	2.25		-0.01	19	10,225
6 Mo	3.94		0.14	30	10,394
1 Yr	11.62		-0.83	26	11,162
3 Yr Avg	8.13		-0.42	17	12,643
5 Yr Avg	5.93	0.36	-0.09	12	13,341
10 Yr Avg	8.27		0.46	9	22,130
15 Yr Avg					

Tax Analysis 3 Yr (estimated) 5 Yr (estimated) 10 Yr (estimated) Tax Adj Rtn% 1) 6.96 4.82 7.37 %Rank Cat 12 7 Tax-Cost Rat 1.08 1.06 0.83 %Rank Cat 29 26 11

Potential Capital Gain Exposure: 25% of assets

Morningstar's Take by Jason Kephart 04-25-19

The low-cost, straightforward approach behind the Vanguard Target Retirement series of target-date funds continues to earn the series a Momingstar Analyst Rating of Gold.

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The series' overall stock/bond split across the glide path has been in place since mid-2006. For the most part, it sticks close to the peer norm. The glide path part, it sticks

Vanguard Chester Funds Vallev Forge, PA 19482	Minimum Purchase: Min Auto Inv Plan:	\$1000	Add: \$1 Add: —
valley Forge, FA 1946z 800-662-7447	Sales Fees:	No-load	Auu: —
www.vanguard.com	Management Fee:	0.00%	
06-07-06	Actual Fees:	Mgt:0.00% Dist:	Dist:
Vanguard Group Inc	Expense Projections:	3Yr:\$42	5Yr:\$73
None	Income Distribution:	Annuallv	

Inception:

Advisor: Web Address

Subadvisor

Address:

6,577 10,070		÷	27 14			0.00 0.04								19.96 22.10	2009 2010			<		ک				Highest		Return High	Historical Profile	ent Zuzu Inv	
		12,288	23	2.11	0.00	0.03	0.51	32	-1.72	2.32	0.01	-1.14	0.60	21.69	2011						<pre>}</pre>			,	•		G	ΝV	
		17,324	8	2.62	0.00	0.03	0.51	36	10.01	2.34	0.31	-0.18	12.35	23.83	2012														
		23,878	17	2.23	0.00	0.01	0.48	18	13.82	2.03	1.54	2.87	15.85	27.11	2013							X							
		28,525	7	2.14	0.00	0.04	0.54	_	5.12	2.00	2.22	1.24	7.11	28.46	2014							ſ	ł						
	Port	26,147	25	2.07	0.00	0.54	0.59	23	-2.76	2.08	1.11	1.20	-0.68	27.15	2015								}						1
10110 2011	folio An	27,772	18	2.14	0.00	0.21	0.56	29	4.88	2.07	-1.62	-0.71	6.95	28.26	2016								<pre>\</pre>					VTWNX	
any or of the	Portfolio Analysis on 20 10	32,640		2.15	0.00	0.23	0.63	17	11.85	2.23	-0.58	1.29	14.08	31.38	2017								N					2.2%	Viold
9-30-19	0 00 10	30,272	-	2.30		0.67	0.74	42	-6.61	2.37	0.52	-0.08	-4.24	28.63	2018									Ş				\$33,145 mil	Total
		33,145		2.74		0.00	0.00	28	14.15	0.00	-0.84	-0.53	14.15	32.68	10-19									2	l			\$33,145 mil	Accoto
		Net Assets \$mil	Turnover Rate %	Income Ratio %	Expense Ratio %	Capital Gains \$	Income \$	Total Rtn % Rank Cat	Capital Return %	Income Return %	+/- Bmark 2	+/- Bmark 1	Total Return %	NAV	History	to the second se	(within Category)		. 10.0		15.0 — Investment Values of Benchmark 1	Fund	20.0 — Investment Values of	Growth of \$10,000	3F D	Eduity	Investment Style	Target-Date 2020	Metar Catagory

Ratin	Rating and Risk			
Time	Load-Adj	Morningstar	Morningstar	Morningstar
Period	Return %	Rtn vs Cat	Risk vs Cat	Risk-Adj Rating
1 Yr	11.62			
3 Yr	8.13	+ Avg	Avg	****
5 Yr	5.93	+ Avg	Avg	*****
10 Yr	8.27	High	Avg	****
Incept	6.32			
Other N	Other Measures	Standa	Standard Index	Best Fit Index
Alpha			0.3	0.0
Beta			0.89	0.92
R-Squared	red		99	66
Standa	Standard Deviation		5.98	
Mean			8.13	
Sharpe Ratio	Ratio		1.06	

the norm, leaving investors more at risk of a bear market near the retirement date. years to retirement and continues to decline until arriving at a 30% equity stake seven years after equity exposure; both 6 percentage points higher than 59% equity exposure and at retirement it has 50% peaks. Five years from retirement, the glide path has account balances can be expected to be near their most from the peer average near retirement when retirement. The series' equity glide path deviates the starts with a 90% equity exposure until a fund hits 25

bonds low, but it also means the performance of the U.S. dollar can have a big impact on returns, particularly when international bonds have historically low yields, like now. The currency hedge keeps the volatility of the foreign that tracks developed-markets debt for the exposure bonds as peers. It uses a currency-hedged index fund stands out for its roughly double allocation to foreign From a sub-asset-class perspective, the series'

(% of Stock)

Composition - Net Cash Bonds Other Foreign	Market Cap % Giant 45.4 Small Large 30.4 Micro Mid 18.0 Avg \$mll:	1.49 low 7.65 ld % 2.52 .res % rngs 9.02 4.34 4.17 7.87 7.87 7.87	arge-Cap res 16.26 192 2.07	Total Fixed Income: 0	Portfolio Analysis 09-30-19 Total Stocks: 0 Share change since 08-31-19 ⊖ Vanguard Total Bond Marke ⊕ Vanguard Total Intl Stock ⊕ Vanguard Total Intl Bdld ⊖ Vanguard Total Intl Bdld ⊖ Vanguard Shrt-Term Infl-P ⊕ Cmt Market Liquidity Rate	0.56 0.63 0.21 0.23 2.14 2.15 18 13 27,772 32,640	1.11 -1.62 -0.58 2.08 2.07 2.23 -2.76 4.88 11.85 23 29 17
1.3 (s 50.6 s 47.8 (0.3 1 0.3 1 0.3	5.4 0.8 43,398	0.99 0.98 0.199 Rel Category 1.00 -0.57 -1.60 3.15 0.86	Rel Category 0.99 0.94	Date of Maturity	30-19 ke		0.52 2.37 -6.61 42
 → Defensive ➡ CnsmrDef ➡ Hlthcare ❑ Utilities 		Avg Wrtd Coupon 2.5 1 figure provided by fund as of 09-30-19 % of Sector % of Weightings Stocks Bma Ve Cyclical 38.27 0 2 Basic/Mat 4.85 1 2 Resin/Cyc 11.98 1 3 Basic/Mat 4.85 1 3 BrianSvcs 17.03 1 3 Brail Fst 4.41 0	Fixed-Income Style Duration: Moderate Quality: High Avg Eff Duration ¹ Avg Eff Maturity Avg Credit Quality	f V Amount 000	Sector		-0.84 + 0.00 In 14.15 Ca 28 To
23.49 8.43 11.67 3.39		on oy fund as of 09-3 % of Stocks 38.27 4.85 11.98 17.03 4.41	n n ate trivy nate) Value \$000	VTD Ret %	Income \$ Capital Gains \$ Expense Ratio % Income Ratio % Turnover Rate % Net Assets \$mil	+/- Bmark 2 Income Return % Capital Return % Total Rtn % Rank Cat
1.01 1.00 1.10 0.82	1.12 1.03 1.02 1.01 1.26	2.58% 30-19 Rel Bmark 1 0.90 1.06 1.06 1.02 1.02 0.42	6.3 8.0 Yrs	% Assets	% Assets 30.78 29.19 20.63 12.83 6.54 0.02		Cat

Vanguard Target Retirement 2025 Inv

Benchmark 1: Morningstar Lifetime Mod 2025 TR USD Benchmark 2: Morningstar Mod Tgt Risk TR USD

🕄 Gold Morningstar Analyst Rating 04-25-19

Morningstar Pillars	
Process	Positive
Performance	Positive
People	Positive
Parent	Positive
Price	Positive

Norningstar Analyst Rating

Morningstar evaluates mutual funds based on five key pillars, which its analysts believe lead to funds that are more likely to outperform over the long term on a risk-adjusted basis.

Analyst Rating Spectrum

🕶 Gold

😇 Silver

😳 Bronze

Neutral

Negative

Pillar Spectrum

Positive		• Negative	ive	0	 Neutral
Performance 10-31-19	Ince 10-3	31-19			
	1st Otr	2nd Otr	3rd Otr	4th Qtr	Total
2015	2.24	-0.41	-5.53	3.08	-0.85
2016	1.54	1.95	3.71	0.11	7.48
2017	4.59	3.10	3.52	3.87	15.94
2018	-0.59	0.65	2.76	-7.74	-5.15
2019	8.82	3.35	1.10		Ι
Trailing	Total +	+/- Bmark -	+/- Bmark	%Rank	Growth of
	Return%	_	2	Cat	\$10,000
3 Mo	2.35	0.01	0.08	26	10,235
6 Mo	3.86	-0.62	0.06	33	10,386
1 Yr	12.18	-0.85	-0.27	21	11,218
3 Yr Avg	8.93	0.24	0.38	18	12,927
5 Yr Avg	6.39	0.34	0.36	8	13,627
10 Yr Avg	8.84	0.19	1.03	11	23,325
15 Yr Avg	6.58	-0.77	-0.18	20	26,024

Tax Analysis 3 Yr (estimated) 5 Yr (estimated) Potential Capital Gain Exposure: 27% of assets 10 Yr (estimated) 5.33 7.98 10 tt Tax-Cost Rat 0.92 0 0.99 1 0.79 %Rank Cat 16 17 14

Tax Adj Rtn% 1) 7.94

%Rank Cat 14

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The currency hedge keeps the volatility of the foreign that tracks developed-markets debt for the exposure bonds as peers. It uses a currency-hedged index fund stands out for its roughly double allocation to foreign

like now.

se to the peer norm. The glide path				
Vanguard Chester Funds	Minimum Purchase:	\$1000	Add: \$1 IRA:	IRA: —
Valley Forge, PA 19482	Min Auto Inv Plan:		Add:	
800-662-7447	Sales Fees:	No-load		
www.vanguard.com	Management Fee:	0.00%		
10-27-03	Actual Fees:	Mgt:0.00% Dist:	Dist:—	
Vanguard Group Inc	Expense Projections:	3Yr:\$42	5Yr:\$73	10Yr:\$166
None	Income Distribution:	Annually		

Inception:

Advisor: Web Address

Subadvisor

3 Yr 5 Yr 10 Yr Incept	Time L Period R 1 Yr	Rating :	10,949	3.U9 21	0.00	0.00	0 7E	22.10	2.72	3.04	-2.36	11.32 24.81	2009		4	5			Rating	Return Risk	Historic	ent 2025 Inv
6.39 6.82 6.82	Load-Adj Return % 12.18	Rating and Risk	14,987	2.42 11	0.00	0.02	n 37	11.63	2.21	1.50	-1.32	12.62 13.84	2010			ξ			Hinhest	Above Avg Average	Historical Profile	025
+ Avg High + Avg	Morningstar Rtn vs Cat		16,357	2.01	0.00	0.01	16	-2.67	2.31	-0.96	-0.61	12.27 -0.37	2011			•			*	Ŋ	e	Inv
	Morningstar Risk vs Cat		21,269	2.64 9	0.00	0.01	n 30	10.88	2.41	1.25	-0.37	13.59 13.29	2012				\mathbf{k}			E		
+ Avg Avg Avg * * *	gstar Mor s Cat Risk-		28,021	2.27 16	0.00	0.02	n 24	16.03	2.11	3.83	1.87	15.75 18.14	2013				X	N		E		
* * * * * * * * * * *	Morningstar Risk-Adj Rating		32,318	2.15 7	0.00	0.03	0 22	5.12	2.04	2.28	1.13	16.53 7.17	2014							E		
⊕ ⊕ ⊕ ⊕ Cn ≤a ≤a	Total S hare	Port	29,787	2.U/ 24	0.00	0.44	0.24	-2.92	2.07	0.94	1.21	-0.85	2015					Ş		E		5 5
nguard Tot nguard Tot nguard Tot nt Market I	Total Stocks: 0 Share change since 08-31-19 Uanguard Total Stock I	folio An		2. 18 12	0.00	0.11	n 23	5.39	2.09	-1.09	-0.91	16.35 7.48	2016					5		E		Ticker VTTVX
 Vanguard Total Bond Marke Vanguard Total Intl Stock Vanguard Total Intl Bd Id Crmt Market Liquidity Rate 	Total Stocks: 0 Share change since 08-31-19 Vanguard Total Stock Mkt	Portfolio Analysis 09-30-19	39,232	8	0.00	0.09	21	13.68	2.26	1.28	1.40	18.50 15.94	2017							E		Yield 2.2%
arke d	ľkt	3-30-19	38,312	2.24	2	0.10	42	-7.50	2.35	-0.39	-0.25	-5.15	2018						\$	E		Total Asse t \$44,957 mil
	Sector		44,957	<i>1.2</i>	4 +	0.00	n nn	15.46	0.00	0.48	-0.36	19.64 15.46	10-19						}	E		Total Assets \$44,957 mil
	tor YTD Ret % % Assets — 36.71		Net Assets \$mil	Income Katio % Turnover Rate %	Expense Ratio %	Capital Gains \$	Total Rtn % Rank Cat	Capital Return %	Income Return %	+/- Bmark 2	+/- Bmark 1	NAV Total Return %	History	Performance Quartile (within Category)	- 10.0		Fund 15.0 — Investment Values of Benchmark 1	20.0 — Investment Values of	- 25.0 Growth of \$10,000	- Harrish	Investment Style	Mstar Category Target-Date 2025

Rating and Risk				Portfolio Analysis 09-30-19	sis 09-30-	19			
Time Load-Adi	Morningstar M	Morningstar	Morningstar	Total Stocks: 0					
<u> </u>		lisk vs Cat	Risk vs Cat Risk-Adi Ratino	Share change since 08-31-19	-31-19		Sector	YTD Ret %	% Assets
				Uanguard Total Stock Mkt	tock Mkt		I		36.71
3 Yr 8.93	+ Avg	+Avg	***	Vanguard Total Bond Marke	ond Marke				27.25
	Hiah		****	Uanguard Total Intl Stock	ntl Stock				24.43
-	+ Ava		****	Vanguard Total Intl Bd Id	ntl Bd Id				11.56
	c			⊕ Cmt Market Liquidity Rate	iditv Rate				0.05
Other Measures	Standard Index	ndex	Best Fit Index	Total Fixed Income: 0	0	Date of Maturity	Amount 000	000 Value) Assets
Alpha		0.1	0.0						
Beta		1.04	0.92	Equity Style			Fixed-Income Style	Style	
R-Squared		66	66				Duration: Moderate	derate	
Standard Deviation		7.01		orec. Eargo oup		E	cadity. Iviodiali		
Mean		8.93		Value Measures	Rel Category	-	Avg Eff Duration	ion '	b.9
Sharpe Ratio		1.02		Price/Earnings	16.27	0.98	Avg Eff Maturity	rity	8.8 Yrs
				Price/Book	2.08	0.94	Avg Credit Quality	uality	A
				Price/Sales	1.49	0.94	Avg Wtd Coupon	pon	2.93%
	÷			Price/Cash Flow	7.65	0.98	¹ figure provide	¹ figure provided by fund as of 09-30-19	3-30-19
starts with a 90% equity exposure uniti a fund filts 20	equity exposure			Dividend Yield %	2.52	1.01		2	
years to retirement and continues to decline until	r and continues		e until	Growth Measures	% Rel Category		Sector Weightings	% of Stocks	Hel Bmark 1
aniving at a burge equity stake seven years after the	duity stake seve	SILAER A		Long-Term Erngs	9.02	0.99	n. Cyclical	96.85	

Composition - Net	n Market Cap % Giant 41 Large 30 Mid 11	Growth Measures Long-Term Erngs Book Value Sales Cash Flow Historical Erngs	Value Measures Price/Earnings Price/Book Price/Cash Flow Price/Cash Flow Dividend Yield %	() Crmt Ma Jex Total Fixed).0 92 Equity Style 92 Style: B Size: L
ion - Net	5.4 8.0	easures m Erngs ue v I Erngs	isures nings ok es ;h Flow Yield %	 Crnt Market Liqui Total Fixed Income: 0 Equity Style Elend Style: Large-Cap Size: Large-Cap
 Cash Stocks Bonds Other 	Small Micro Avg \$mil:		16.27 2.08 1.49 7.65 2.52	Crnt Market Liquidity Rate Total Fixed Income: 0 Equity Style Style: Blend Size: Large-Cap
1.4 1.4 1.4 1.4 1.4 1.4 1.4 1.4 1.4 1.4	5.4 0.8 43,478		Rel Category 0.98 0.94 0.94 0.98 1.01	Date of Maturity
		Sector Weightings Cyclical BasicMat CnsmrCyc FinanSvcs Real Est	Avg Eff Duration ¹ Avg Eff Maturity Avg Credit Quality Avg Wtd Coupon ¹ figure provided by f	Amount 000 Fixed-Income Style Duration: Moderate Quality: Medium
nsive nrDef are es	Sensitive CommSrvs Energy Industrl	s Swat שור געמו ואר גער גער גער גער	Avg Eff Duration ¹ 8.8 Avg Eff Maturity 8.8 Avg Credit Quality 2.9 Avg Wtd Coupon 2.9 Avg Wtd Coupon 2.9 Argure provided by fund as of 09-30-19	Amount 000 I-Income Style on: Moderate y: Medium
23.50 8.43 11.68 3.39	38.25 3.35 5.01 11.23 18.66	% of Stocks 38.26 4.84 11.98 17.03 4.41	Id as of 09-	\$000
1.01 1.10 0.82	1.12 1.03 1.00	Rel Bmark 1 1.04 1.09 1.01 0.44	6.9 8.8 Yrs A 2.93% 30-19	Assets

Vanguard Target Retirement 2030 Inv

Benchmark 1: Morningstar Lifetime Mod 2030 TR USD Benchmark 2: Morningstar Mod Tgt Risk TR USD

😵 Gold Morningstar Analyst Rating 04-25-19

Morningstar Pillars

Process	Process OP Positive
Performance	Positive
People	Positive
Parent	Positive
Price	Price Positive

Morningstar Analyst Rating Morningstar evaluates mutual funds based on five key pillars, which its analysts believe leaft of funds that nee more likely to outperform over the long term on a risk-adjusted basis.

Analyst Rating Spectrum

🕶 Gold

🕃 Silver

😳 Bronze

Neutral

Negative

Pillar Spectrum

Positive		Negative	tive	0	Neutral
Performance 10-31-19	ance 10-3	31-19			
	1st Otr	2nd Otr	3rd Otr	4th Otr	Total
2015	2.31	-0.24	-6.31	3.49	-1.03
2016	1.30	1.92	4.02	0.42	7.85
2017	5.10	3.29	3.88	4.21	17.52
2018	-0.56	0.78	3.09	-8.86	-5.86
2019	9.54	3.41	0.89		
Trailing	Total -	/- Bmark	+/- Bmark	%Rank	Growth of
	Return%	_	2	Cat	\$10,000
3 Mo	2.43		0.16	24	10,243
6 Mo	3.70		-0.10	28	10,370
1 Yr	12.28		-0.17	32	11,228
3 Yr Avg	9.57		1.02	29	13,154
5 Yr Avg	6.69	0.14	0.67	20	13,827
10 Yr Avg	9.33		1.52	16	24,398

 Tax Analysis
 T

 3 Yr (estimated)
 5 Yr (estimated)
 10 Yr (estimated) Tax Adj Rtn% 1) 8.68 1) 5.77 1) 8.57 %Rank Cat 12 15 Tax-Cost Rat 0.82 0.86 0.69 %Rank Cat 12 13 10

Mean

7.87 9.57 0.99

Standard Deviation

Sharpe Ratio

15 Yr Avg

Potential Capital Gain Exposure: 27% of assets

Morningstar's Take by Jason Kephart 04-25-19

The low-cost, straightforward approach behind the Vanguard Target Retirement series of target-date funds continues to earn the series a Morningstar Analyst Rating of Gold.

options, if no longer the cheapest, over the long term standing commitment to low costs inspires confidence that the series will continue to be one of the cheaper compression of target-date funds is likely to continue. meeting the demand for low costs, the fee cheaper than the median comparable peer at year-end now charges 0.09%, which was 0.41 percentage points class offered by peers. The series' cheapest share class points cheaper than the median for the cheapest share expense ratio, which was almost 0.60 percentage greatest advantage versus peers has been its low costs. In 2008, for example, the series had a 0.20%While its fee edge is on the decline, Vanguard's long-2018. Given target-date providers' heightened focus on Over the past decade, this target-date fund series

The series' overall stock/bond split across the glide path has been in place since mid-2006. For the most part, it sticks close to the peer norm. The glide path

nauių	nauliy allu nisk			
Time	Load-Adj	Morningstar	Morningstar	Morningstar
Period	Return %	Rtn vs Cat	Risk vs Cat	
1 Yr	12.28			
З Үr	9.57	+ Avg	Avg	****
5 Yr	6.69	+ Avg	Avg	****
10 Yr	9.33	+ Avg	Avg	
Incept	6.68			
Other Measures	easures	Standa	Standard Index	Best Fit Index
Alpha			-0.1	-0.1
Beta			1.17	1.17
R-Squared	ed		99	66

the norm, leaving investors more at risk of a bear market near the retirement date. years to retirement and continues to decline until arriving at a 30% equity stake seven years after equity exposure; both 6 percentage points higher than 59% equity exposure and at retirement it has 50% peaks. Five years from retirement, the glide path has account balances can be expected to be near their most from the peer average near retirement when retirement. The series' equity glide path deviates the starts with a 90% equity exposure until a fund hits 25

bonds low, but it also means the performance of the U.S. dollar can have a big impact on returns, particularly when international bonds have historically low yields, like now. The currency hedge keeps the volatility of the foreign that tracks developed-markets debt for the exposure. bonds as peers. It uses a currency-hedged index fund stands out for its roughly double allocation to foreign From a sub-asset-class perspective, the series'

Foreign 3 (% of Stock)

39.5

		Annually	Income Distribution:	None	п
10Yr:\$179	5Yr:\$79	3Yr:\$45	Expense Projections:	Vanguard Group Inc	
	Dist:	Mgt:0.00% Dist:	Actual Fees:	06-07-06	
		0.00%	Management Fee:	www.vanguard.com	ess:
		No-load	Sales Fees:	800-662-7447	
	Add:		Min Auto Inv Plan:	Valley Forge, PA 19482	
IRA:	Add: \$1	\$1000	Minimum Purchase:	Vanguard Chester Funds	

Inception:

Advisor: Web Addre

Subadvisoi

			10	
Compo	Market Cap % Giant 4 Large 3 Mid 1	Price/Cash Dividend Yi Growth Mea Long-Term Book Value Sales Cash Flow Historical E	Style: B Size: La Value Measu Price/Earnir Price/Book Price/Cales	-3.206 -3.06 0.60 0.44 2.08 2.24 22,562 Total S Share c Share c Share C O Cm U Car Total S C C Car Contal S C Contal S C C C C C C C C C C C C C C C C C C C
Composition - Net	Cap % 45.4 30.4 18.0	Price/Cash How Dividend Yield % Growth Measures Long-Term Erngs Book Value Sales Sales Cash Flow Historical Erngs	Style: Blend Style: Large-Cap Size: Large-Cap Value Measures Price/Earnings Price/Book Price/Sales	2.06 2.08 2.29 3.09 5.77 15.23 3.19 5.77 15.23 3.19 0.58 0.67 0.44 0.12 0.02 0.00 0.00 2.01 2.4 11 8 2.4 2.11 8 2.4 2.11 8 2.4 2.11 8 2.76 32.830 Portfolio Analysis C Total Stocks: 0 Portfolio Analysis C Total Stocks: 0 Share change since 08-31-19 Share change since 01-11 Share change since 01-11 Share change since 01-11 Share change since 01-11 Share change since 01-11 Share change since 01-11 Share change since 01-11 Share change since 01-11 Share change since 01-11 Share change since 01-11
t Cash Stocks Other	Small Micro Avg \$mil:	7.65 2.52 9.02 4.34 4.17 7.89 9.40	_ _	2.06 2.08 2.29 2.09 5.77 15.23 -8.1 31 32 34 -8.1 33 -8.1 31 32 34 -8.1 33 -8.1 0.60 0.58 0.67 0.02 0.0 34 3 0.08 2.20 2.00 0.00 2.20 2.0 32 35 2.4 11 8 2.20 2.0 32 35 35 2.4 2.1 8 2.20 0.0 2.00 2.00 35 35 35 35 35 35 35 35 35 35 36 37 35 36 37 37 35 37 35 37 37 36 37
ih 1.4 cks 67.5 nds 30.9 0.3	5.4 0.8 43,490	0.98 1.00 0.99 -0.57 -4.59 1.34 0.87	Rel Category 0.99 0.96	-8.14 -8.14 -8.14 -8.14 -8.14 0.07 2.22 2.22 2.22 2.22 2.22 2.22 2.22
	∎¢>■₹		-	
Defensive CnsmrDef Hlthcare Utilities	Sensitive CommSrvs Energy Industrl Technlgy	ior ghtings Cyclical BasicMat EnsmrCyc FinanSvcs Real Est	Duration: Moderate Duality: Medium Avg Eff Duration ¹ Avg Eff Maturity Avg Credit Quality Avg Wtd Coupon	
23.50 8.43 11.68 3.39	38.25 3.35 5.01 11.23 18.66	¹ figure provided by fund as of 09-30-19 Sector % of Sector % of Veightings Stocks BasicMat 4.84 ChamCyc 1.98 ChamCyc 17.03 FinanSvcs 17.03 FinanSvcs 17.03	· - co c	Capital Return % Capital Return % Capital Gains \$ Capital Gains \$ Expense Ratio % Income Ratio % Income Rate % VTD Ret % % As
1.02 1.00 1.11 0.82	1.11 1.03 0.99	→30-19 Rel 0.90 1.01 1.08 1.08 0.46	6.9 8.8 Yrs A 2.93%	%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
				30



Vanguard Target Retirement 2035 Inv

Benchmark 1: Morningstar Lifetime Mod 2035 TR USD Benchmark 2: Morningstar Mod Tgt Risk TR USD

🕄 Gold Morningstar Analyst Rating 04-25-19

Morningstar Pillars

Process	Process
Performance	Positive
People	Positive
Parent	Positive
Price	Price Positive

Morningstar Analyst Rating Morningstar evaluates mutual funds based on five key pillars, which its analysts believe lead to funds that are more likely to outperform over the long term on a risk adjusted basis.

Analyst Rating Spectrum

🕶 Gold

😇 Silver

😳 Bronze

Neutral

Negative

Pillar Spectrum

Tax Analysis 3 Yr (estimated) 5 Yr (estimated) Potential Capital Gain Exposure: 31% of assets 10 Yr (estimated) 6.00 9.02 i⊒ 16 t Tax-Cost Rat 0.83 0.91 0.71

Tax Adj Rtn% 1) 9.26

%Rank Cat

%Rank Cat 11

 $\frac{1}{10}$

Morningstar's Take by Jason Kephart 04-25-19

The low-cost, straightforward approach behind the Vanguard Target Retirement series of target-date funds continues to earn the series a Morningstar Analyst Rating of Gold.

standing commitment to low costs inspires confidence that the series will continue to be one of the cheaper compression of target-date funds is likely to continue. meeting the demand for low costs, the fee cheaper than the median comparable peer at year-end now charges 0.09%, which was 0.41 percentage points class offered by peers. The series' cheapest share class expense ratio, which was almost 0.60 percentage greatest advantage versus peers has been its low costs. In 2008, for example, the series had a 0.20%options, if no longer the cheapest, over the long term. While its fee edge is on the decline, Vanguard's long-2018. Given target-date providers' heightened focus on points cheaper than the median for the cheapest share Over the past decade, this target-date fund series

The series' overall stock/bond split across the glide path has been in place since mid-2006. For the most part, it sticks close to the peer norm. The glide path

ent 2035 Inv)35	ΝV				V∏ Tic	Ticker VTTHX	Yield 2.1%	Total Asset \$37,999 mil	Total Assets \$37,999 mil	Mstar Category Target-Date 2035
Historic Return	Historical Profile Return Above Avg	0									Investment Style Equity
Risk Rating	Average								Ş	}	- 30.0 - 25.0 Growth of \$10,000
	۱. ۱.	<i>\</i>	\mathbf{i}	X		}	<pre>{</pre>				20.0 Investment Values of Fund 15.0 Investment Values of Benchmark 1
\mathbf{k}											• 10.0
											Performance Quartile (within Category)
2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	10-19	History
11.62	13.09	12.51	14.09	16.98	17.84	16.84	17.74	20.69	18.82	22.03	NAV
28.17	15.14	-2.24	15.16	22.82		-1.26		19.12	-6.58	17.06	Total Return %
-2.90 6.40	-1.39 2.81	-2.83	-0.20 3.12	0.79 8.52	1.44 2.35	1.32 0.53	-1.80 -0.31	0.60 4.46	0.24 -1.82	-0.90 2.07	+/- Bmark 1 +/- Bmark 2
2.57	2.03	2.15	2.45	2.30		2.08		2.31	2.24	0.00	Income Return %
25.60 64	13.11 26	-4.39 19	12.71 40	20.52 23		-3.34 37		16.81 35	-8.82	17.06 51	Capital Return % Total Rtn % Rank Cat
0.24	0.24	0.28	0.31	0.32		0.37		0.41	0.46	0.00	Income \$
0.00	0.05	0.01	0.01	0.00		0.42		0.03	0.04	0.00	Capital Gains \$
0.00	0.00	0.00	0.00	0.00		0.00		0.00	1		Expense Ratio %
2.88	2.24	1.81	2.68	2.33		2.07		2.22	2.19	2.56	Income Ratio %
9	6	18	6	12	6	23	12	7			Turnover Rate %
7,563	10,353	11,361	15,218	21,131 24,514	24,514	22,694	25,029	31,702	31,702 31,087	37,999	Net Assets \$mil
Dating and Diel	and Diak						60lio An	Doutfolio Analusio an an			

Ratin	Rating and Risk			
Time	Load-Adj	Morningstar	Morningstar	Morningstar
Period	Return %	Rtn vs Cat	Risk vs Cat	Risk-Adj Rating
1 Yr	12.34			
3 Yr	10.17	+ Avg	Avg	****
5 Yr	6.98	+ Avg	Avg	****
10 Yr	9.80	+ Avg	Avg	****
Incept	7.41			
Other N	Other Measures	Standa	Standard Index	Best Fit Index
Alpha			-0.4	0.1
Beta			1.29	0.97
R-Squared	red		66	66
Standa	Standard Deviation		8.73	
Mean			10.17	
Sharpe Ratio	Ratio		0.96	

the norm, leaving investors more at risk of a bear market near the retirement date. equity exposure; both 6 percentage points higher than 59% equity exposure and at retirement it has 50% peaks. Five years from retirement, the glide path has account balances can be expected to be near their most from the peer average near retirement when retirement. The series' equity glide path deviates the arriving at a 30% equity stake seven years after years to retirement and continues to decline until starts with a 90% equity exposure until a fund hits 25

bonds low, but it also means the performance of the U.S. dollar can have a big impact on returns, particularly when international bonds have historically low yields, like now. The currency hedge keeps the volatility of the foreign that tracks developed-markets debt for the exposure. bonds as peers. It uses a currency-hedged index fund stands out for its roughly double allocation to foreign From a sub-asset-class perspective, the series'

Foreign 3 (% of Stock)

39.4

		Annually	Income Distribution:	None	ā
10Yr:\$179	5Yr:\$79	3Yr:\$45	Expense Projections:	Vanguard Group Inc	
	6 Dist:	Mgt:0.00% Dist:	Actual Fees:	10-27-03	
		0.00%	Management Fee:	www.vanguard.com	ess:
		No-load	Sales Fees:	800-662-7447	
	Add:		Min Auto Inv Plan:	Valley Forge, PA 19482	
IRA: —	Add: \$1	\$1000	Minimum Purchase:	Vanguard Chester Funds	

Inception: Advisor:

Subadviso

Web Addre

	0.32 0.42 0.42 0.14 0.00 2.07 2.3 12 2.3 12 2.7 7 2.694 2.694 2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7	0.136 0.14 12 25,029 225,029 225,029 225,029 225,029 20 20 20 20 20 20 20 20 20 20 20 20 20	m = ≥ 0 < m	99 94 96 7 1 9 7 1 9 7 1 9 7 1 9 7 1 9 7 1 9 7 1 1	2.56 Incor 2.56 Incor 2.56 Incor 37,999 Net/ 37,999 Net/ 37,999 Net/ 37,999 Net/ 1/ 2000 Net/ 37,999 Net/ 1/ 2000 Net/ 2000 Ne	2 Capital G 2 Capital G 5 Income % 5 Income R 1 Turnover f 9 Net Asse 9 Net Asse 9 Net Asse 1 Capital G 9 Net Asse 9 Net Asse 1 Capital G 1 Capital Capital Capital Capital Capital Capital Capital Capital Capital Ca	Income \$ Experied Gains \$ Experied Gains \$ Income Ratio % Income Ratio % Net Assets \$mil
	Total Stoc Share char ⊕ Vangu ⊕ Vangu ⊕ Vangu ⊕ Vangu ⊕ Cangu	nge since lard Tota lard Tota lard Tota lard Tota lard Tota lard Tota	08-31-19 Il Stock MI Il Intl Stock Il Bond Ma Il Intl Bd Id	te irke	Sector	Ц	D
√ → × I	Total Fixe	ad Incom	e: 0	Date c Maturit		Int 000	
- 9	ି ସ	yle Blend Large-C	de		Fixed-Inco Duration: Quality:	me Style Moderate Medium	
	Value Mea Price/Ear Price/Boc	nings bk		tel Category 0.98 0.94	Avg Eff Du Avg Eff M Avg Credit	ıration 1 aturity t Quality	
	Price/Sales Price/Cash Flow Dividend Yield %	es sh Flow Yield %	1.49 7.66 2.52	0.95 1.03	Avg Wtd Coupon 2.9 ¹ figure provided by fund as of 09-30-19	Coupon vided by fun	d
	Growth Measures	easures n Ernns		Rel Category N 98	Sector Weightings	8	% of Stocks
	Long-Ierm Erngs Book Value Sales	n Erngs ue	9.02 4.34 4.18	-0.68 -8.82)al Mat	38.24 4.83
	Historical Erngs	N I Erngs	7.90 9.41	1.21 0.85	 CnsmrCyc FinanSvcs Real Est 	nrCyc Svcs Est	11.98 17.02 4.41
	Giant 4 Large 3	.4	Small Micro	5.4 0.8	Sensitive CommSr	Sensitive CommSrvs	38.27 3.35
	Mid		Avg \$mil:	43,553		trl V	5.01 11.23
	Composition - Net	ion - Net	 Cash Stocks 	h 1.4 bks 74.9		nsive nrDef	23.49 8.42
			 Bonds Other 	ds 23.5 9r 0.2	Utilities	es	

Vanguard Target Retirement 2040 Inv

Ticker VFORX

Yield 2.0%

Total Assets \$29,801 mil

Mstar Category Target-Date 2040

Benchmark 1: Morningstar Lifetime Mod 2040 TR USD Benchmark 2: Morningstar Mod Tgt Risk TR USD

😵 Gold Morningstar Analyst Rating 04-25-19

Morningstar Pillars

Process	Process Process
Performance	Positive
People	Positive
Parent	Positive
Price	Price Positive

Morningstar Analyst Rating Morningstar evaluates mutual funds based on five key pillars, which its analysts believe lead to funds that are more likely to outperform over the long term on a risk adjusted basis.

Analyst Rating Spectrum

🕶 Gold

🕃 Silver

😳 Bronze

Neutral

Negative

Pillar Spectrum

Positive		Negative	ive	0	Neutral
Performance 10-31-19	ance 10-3	31-19			
	1st Otr	2nd Otr	3rd Otr	4th Otr	Total
2015	2.39	0.13	-7.93	4.26	-1.59
2016	0.84	1.81	4.72	1.13	8.73
2017	6.02	3.75	4.51	5.00	20.71
2018	-0.53	0.90	3.79	-11.03	-7.32
2019	10.96	3.46	0.49		I
Trailing	Total -	+/- Bmark -	+/- Bmark	%Rank	Growth of
	Return%	_	2	Cat	\$10,000
3 Mo	2.48	0.08	0.21	26	10,248
6 Mo	3.20	-0.30	-0.60	34	10,320
1 Yr	12.37	-0.51	-0.09	39	11,237
3 Yr Avg	10.77	-0.08	2.22	25	13,591
5 Yr Avg	7.24	0.12	1.22	25	14,186
10 Yr Avg	10.08	0.19	2.27	17	26,130
15 Yr Avg					

Tax Analysis 3 Yr (estimated) 5 Yr (estimated) 10 Yr (estimated) Tax Adj Rtn% 1) 9.93 6.40 9.38 %Rank Cat 10 g 13 Tax-Cost Rat 0.76 0.78 0.63 %Rank Cat

10 9

Standard Deviation

9.61 10.77 0.94

Sharpe Ratio Mean

Potential Capital Gain Exposure: 31% of assets

Morningstar's Take by Jason Kephart 04-25-19

continues to earn the series a Morningstar Analyst The low-cost, straightforward approach behind the Vanguard Target Retirement series of target-date funds Rating of Gold.

standing commitment to low costs inspires confidence that the series will continue to be one of the cheaper compression of target-date funds is likely to continue. meeting the demand for low costs, the fee cheaper than the median comparable peer at year-end now charges 0.09%, which was 0.41 percentage points class offered by peers. The series' cheapest share class expense ratio, which was almost 0.60 percentage greatest advantage versus peers has been its low costs. In 2008, for example, the series had a 0.20%options, if no longer the cheapest, over the long term While its fee edge is on the decline, Vanguard's long-2018. Given target-date providers' heightened focus on points cheaper than the median for the cheapest share Over the past decade, this target-date fund series

The series' overall stock/bond split across the glide path has been in place since mid-2006. For the most part, it sticks close to the peer norm. The glide path

Historic	Historical Profile	0									Investment Style
Return Risk Rating	Above Avg Average	ũ									30 U
nating	Above Avg					}	{		Ş	Z	30.0 25.0 Growth of \$10,000 — Investment Values of
	<u>کے</u>	$\langle \rangle$	Z	X							Fund Investment Values of 15.0 Benchmark 1
											10.0
											Performance Quartile (within Category)
2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	10-19	History
19.05	21.50	20.50	23.18	28.32		28.45	30.21	35.77	32.31		NAV
28.32	15.17	-2.55	15.56	24.37		-1.59	8.73	20.71	-7.32		Total Return %
-3.49 6.55	-1.54 2.84	-3.14	-0.15 3.52	1.32 10.07	1.63 2.26	1.25 0.21	-1.88 0.16	0.84 0.33 6.05 -2.57	-2.57	-0.73 2.87	+/- Bmark 1 +/- Bmark 2
2.43	1.93	2.07	2.42	2.16		2.07	2.11	2.26	2.18		Income Return %
25.89	13.24	-4.61	13.14	22.22		-3.65	6.63	18.45	-9.50	÷	Capital Return %
77	35	19	31	15		43	27	25	37	: :	Total Rtn % Rank
0.37	0.37	0.44	0.50	0.50		0.62	0.60	0.68	0.78		Income \$
0.00	0.07	0.01	0.01	0.01		0.24	0.12	0.01	0.06		Capital Gains \$
0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		Expense Ratio %
2.78	2.23	1.79	2.69	2.36		2.09	2.23	2.23	2.17	2.46	Income Ratio %
9	7	15	ω	9	6	21	13	8	8		Turnover Rate %
2.763	4,500	5,758	8,797	13,470	16,482	15,604	17,955	23,943	23,667	29,801	Net Assets \$mil

100	66		red	R-Squared
1.07	1.42			Beta
-0.1	-0.6			Alpha
Best Fit Index	Standard Index	Stand	Other Measures	Other N
			7.05	Incept
****	Avg	+ Avg	10.08	10 Yr
****	Avg	+ Avg	7.24	5 Yr
****	Avg	+ Avg	10.77	3 Yr
			12.37	1 Yr
Risk-Adj Rating	Risk vs Cat	Rtn vs Cat	Return %	Period
Morningstar	Morningstar	Morningstar	Load-Adj	Time
		î	Rating and Risk	Ratin

the norm, leaving investors more at risk of a bear market near the retirement date. equity exposure; both 6 percentage points higher than 59% equity exposure and at retirement it has 50% peaks. Five years from retirement, the glide path has account balances can be expected to be near their most from the peer average near retirement when retirement. The series' equity glide path deviates the arriving at a 30% equity stake seven years after years to retirement and continues to decline until starts with a 90% equity exposure until a fund hits 25

bonds low, but it also means the performance of the U.S. dollar can have a big impact on returns, particularly when international bonds have historically low yields, like now. The currency hedge keeps the volatility of the foreign that tracks developed-markets debt for the exposure bonds as peers. It uses a currency-hedged index fund stands out for its roughly double allocation to foreign From a sub-asset-class perspective, the series'

Composition - Net

 $\bullet \bullet \bullet$ • Cash
 Stocks
 Bonds
 Other

1.4 82.0 16.4 0.2

• • 11 | Hlthcare Utilities

23.50 8.43 11.68 3.39

Defensive Technlgy CnsmrDef

0.99 0.99 1.25 1.02 1.12 0.82

Foreign 3 (% of Stock)

39.5

Mid

18.0 Avg

43,495

Energy

\$mil

□¢>

Industrl

5.01 11.23 18.66

		Annually	Income Distribution:	None	ā
10Yr:\$179	5Yr:\$79		Expense Projections:	Vanguard Group Inc	
	Dist:	Mgt:0.00% Dist:	Actual Fees:	06-07-06	
		0.00%	Management Fee:	www.vanguard.com	ess:
		No-load	Sales Fees:	800-662-7447	
	Add:		Min Auto Inv Plan:	Valley Forge, PA 19482	
IRA: —	Add: \$1	\$1000	Minimum Purchase:	Vanguard Chester Funds	

Inception: Advisor:

Subadviso

Web Addre

Market Cap % Giant 45.	Value Measures Price/Earnings Price/Book Price/Cash Flo Dividend Yield Growth Measure Long-Term Ern Book Value Sales Cash Flow Historical Ernc	In the second se	ig Share ch ⊕ Vang ⊕ Vang ⊕ Vang ⊕ Vang ⊕ Vang	2 -3.65 2 43 57 0.62 12 0.24 12 0.24 10 0.00 8 2.09 6 2.1 6 21 15,604
44	Value Measures Price/Earnings Price/Book Price/Sales Price/Cash Flow Dividend Yield % Growth Measures Long-Term Erngs Book Value Sales Sales Cash Flow Historical Erngs	Total Fixed Income: 0 Equity Style Style: Blend Size: Large-Cap	Portfolio Analysis (Total Stocks: 0 Share change since 08-31-19 ⊕ Vanguard Total Stock / ⊕ Vanguard Total Intl Sto ⊕ Vanguard Total Intl Sto ⊕ Vanguard Total Intl Bd ⊕ Vanguard Total Intl Bd ⊕ Cmt Market Liquidity F	6.63 27 0.60 0.12 0.00 2.23 13 17,955
Small Micro	16.27 2.08 1.49 7.65 2.52 9.02 4.34 4.18 7.89 9.40	ap 0	Portfolio Analysis 09-30-19 Total Stocks: 0 Share change since 08-31-19 ⊕ Vanguard Total Stock Mkt ⊕ Vanguard Total Intl Stock ⊕ Vanguard Total Bond Marke ⊕ Vanguard Total Intl Bd Id ⊕ Cmt Market Liquidity Rate	18.45 25 0.68 0.01 0.00 2.23 8 23,943
5.4 0.8	Rel Category 0.96 0.96 0.99 1.01 1.01 Rel Category 6.12 6.12 1.11 1.11	Date of Maturity	-30-19 kt arke	-9.50 37 0.78 0.06 0.00 2.17 8 8 23,667
- • •	Avg Eff Duration ¹ Avg Eff Maturity Avg Credit Qualit Avg Wtd Coupon ¹ figure provided by Sector Weightings Weightings Occilical ConsmitCyc FinanSvcs Real Est		Sector	17.86 47 0.00 0.00 2.46 2.46 29,801
Sensitive CommSrvs	Avg Eff Duration ¹ 8.8 Avg Eff Maturity 8.8 Avg Credit Quality 2.9 Avg Wtd Coupon 2.9 ¹ figure provided by fund as of 09-30-19 5.0 Sector % of Veightings Stocks BasicMat 3.8 Copolical 3.8 BasicMat 4.84 ConsmCyc 11.98 FinanSvcs 17.03 FinanSvcs 17.03	Amount 000 Fixed-Income Style Duration: Moderate Quality: Medium		Capital Ret Total Rtn % Income \$ Capital Gai Expense R Income Ra Turnover R Turnover R
38.25 3.35	nd as of 09: % of Stocks 38.26 4.84 11.98 17.03	Value \$000	YTD Ret %	Capital Return % Total Rtn % Rank Cat Income \$ Capital Gains \$ Expense Ratio % Income Ratio % Turnover Rate % Net Assets \$mil
1.11 1.03	6.9 8.8 Yrs A 2.93% 30-19 Bmark1 0.90 0.98 1.07 0.98	Assets	% Assets 50.06 33.26 11.68 4.97 0.03	- Cat

Vanguard Target Retirement 2045 Inv

VTIVX Ticker

Yield 2.0%

Total Assets \$27,446 mil

Mstar Category Target-Date 2045

Benchmark 1: Morningstar Lifetime Mod 2045 TR USD Benchmark 2: Morningstar Mod Tgt Risk TR USD

🕄 Gold Morningstar Analyst Rating 04-25-19

Morningstar Pillars

Process	Process
Performance	Positive
People	Positive
Parent	Positive
Price	Price Positive

Morningstar Analyst Rating Morningstar evaluates mutual funds based on five key pillars, which its analysts believe lead to funds that are more likely to outperform over the long term on a risk adjusted basis.

Analyst Rating Spectrum

🕶 Gold

😇 Silver

😳 Bronze

Neutral

Negative

Pillar Spectrum

Positive		Negative	tive	0	 Neutral
Perform	Performance 10-31-19	31-19			
	1st Otr	2nd Otr	3rd Otr	4th Qtr	Total
2015	2.41	0.10	-7.95	4.30	-1.57
2016	0.79	1.79	4.82	1.24	8.87
2017	6.19	3.84	4.66	5.22	21.42
2018	-0.58	0.94	4.03	-11.78	-7.90
2019	11.48	3.51	0.26		
Trailing	Total -	+/- Bmark	+/- Bmark	%Rank	Growth of
	Return%	_	2	Cat	\$10,000
3 Mo	2.48	0.09	0.22	30	10,248
6 Mo	2.97	-0.31	-0.83	42	10,297
1 Yr	12.40	-0.32	-0.05	41	11,240
3 Yr Avg	10.97	-0.01	2.41	28	13,663

Tax Analysis 3 Yr (estimated) 5 Yr (estimated) Potential Capital Gain Exposure: 32% of assets 10 Yr (estimated) Tax Adj Rtn% 1) 10.14 1) 6.51 2d) 9.43 12 0.74 0.79 0.66

5 Yr Avg 10 Yr Avg 15 Yr Avg

7.36 10.15 7.51

0.21 0.28 -0.57

1.34 2.34 0.75

21 58

14,266 26,290 29,647

%Rank Cat

Tax-Cost Rat

%Rank Cat

150

17

Morningstar's Take by Jason Kephart 04-25-19

The low-cost, straightforward approach behind the Vanguard Target Retirement series of target-date funds continues to earn the series a Morningstar Analyst Rating of Gold.

standing commitment to low costs inspires confidence that the series will continue to be one of the cheaper compression of target-date funds is likely to continue. meeting the demand for low costs, the fee cheaper than the median comparable peer at year-end now charges 0.09%, which was 0.41 percentage points class offered by peers. The series' cheapest share class expense ratio, which was almost 0.60 percentage greatest advantage versus peers has been its low costs. In 2008, for example, the series had a 0.20%options, if no longer the cheapest, over the long term. While its fee edge is on the decline, Vanguard's long-2018. Given target-date providers' heightened focus on points cheaper than the median for the cheapest share Over the past decade, this target-date fund series

The series' overall stock/bond split across the glide path has been in place since mid-2006. For the most part, it sticks close to the peer norm. The glide path

Historic	Historical Profile	ů.									Investment Style Equity
Return Risk Rating	Above Avg Average Above Avg							N E			30.0 Growth of \$10,000
) [X		}	<pre>{</pre>			1 2 2	25.0 — Investment Values of 20.0 — Investment Values of 15.0 — Investment Values of
2	Ę	Ľ	Ś								Investment values o Benchmark 1
\mathbf{h}											10.0
											Performance Quartile (within Category)
2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	10-19	History
12.02	13.50	12.87	14.55	17.76	18.65	17.78	18.89		20.21	23.93	NAV
28.15	15.19	-2.51	15.58	24.37	7.16	-1.57	8.87		-7.90	18.41	Total Return %
-4.17 6.38	-1.37 2.86	-3.11	-0.20 3.54	10.06	2.27	0.22	-1.37	6.77	-3.14	-0.43 3.42	+/- Bmark 1 +/- Bmark 2
2.57	2.01	2.12	2.46	2.30	2.16	2.07	2.11		2.15	0.00	Income Return %
25.58	13.18	-4.63	13.12	22.07	5.00	-3.64	6.76		-10.05	18.41	Capital Return %
83	40	14	43	26	12	42	28		43	44	Total Rtn % Rank Ca
0.25	0.24	0.29	0.32	0.33	0.38	0.39	0.38		0.48	0.00	Income \$
0.00	0.10	0.01	0.01	0.00	0.00	0.20	0.09		0.03	0.00	Capital Gains \$
2.86	2.24	1.79	2.70	2.36	2.17	2.10	2.43		2.16	2.40	Income Ratio %
10	6	16	7	10	7	20	17	9	7		Turnover Rate %
070	5 610	6.372	8.758	12,766	15,036	14,344	16,483	22,007	21,636	27,446	Net Assets \$mil

	0.91		Ratio	Sharpe Ratio
	10.97			Mean
	10.23		Standard Deviation	Standar
100	86		red	R-Squared
1.14	1.51			Beta
-0.5	-1.0			Alpha
Best Fit Index	Standard Index	Standa	Other Measures	Other M
			7.82	Incept
****	-Avg	+ Avg	10.15	10 Yr
****	Avg	+ Avg	7.36	5 Yr
****	Avg	+ Avg	10.97	3 Yr
			12.40	1 Yr
Risk-Adj Rating	Risk vs Cat	Rtn vs Cat	Return %	Period
Morningstar	Morningstar	Morningstar	Load-Adj	Time
		n	Rating and Risk	Ratin

the norm, leaving investors more at risk of a bear market near the retirement date. equity exposure; both 6 percentage points higher than 59% equity exposure and at retirement it has 50% peaks. Five years from retirement, the glide path has account balances can be expected to be near their most from the peer average near retirement when retirement. The series' equity glide path deviates the arriving at a 30% equity stake seven years after years to retirement and continues to decline until starts with a 90% equity exposure until a fund hits 25

bonds low, but it also means the performance of the U.S. dollar can have a big impact on returns, particularly when international bonds have historically low yields, like now. The currency hedge keeps the volatility of the foreign that tracks developed-markets debt for the exposure bonds as peers. It uses a currency-hedged index fund stands out for its roughly double allocation to foreign From a sub-asset-class perspective, the series'

Composition - Net

Cash
Stocks
Bonds
Other

• • 11 | Hlthcare Utilities

CnsmrDef Defensive Technlgy Industrl Energy Sensitive

23.49 8.43 11.67 3.39

1.03 1.13 0.83

1.4

Foreign 3 (% of Stock)

39.6 88.4 10.0 0.2

		Annually	Income Distribution:	None	
10Yr:\$192	5Yr:\$85	3Yr:\$48	Expense Projections:	Vanguard Group Inc	
	6 Dist:	Mgt:0.00% Dist:	Actual Fees:	10-27-03	
		0.00%	Management Fee:	www.vanguard.com	ess:
		No-load	Sales Fees:	800-662-7447	
	Add:		Min Auto Inv Plan:	Valley Forge, PA 19482	
IRA:	Add: \$1	\$1000	Minimum Purchase:	Vanguard Chester Funds	

Inception:

Advisor: Web Addre Address:

Subadvisor

																																		-
Compo		Mid	Large	Giant	Market Cap %	Histor	Cash Flow	Sales	Book Value	Long-1	Growth	Divide	Price/(Price/Sales	Price/Book	Price/I	Value N	Size:	Style:	Finity	Total F	⊕ Cm	⊕ Var	⊕ Var	⊕ Var	⊕ Var	Share of	Total S	Port	14,344	20	2.10	0.00	
Composition - Net		18.0	30.4	45.4	Cap %	Historical Erngs	Flow		Value	Long-Term Erngs	Growth Measures	Dividend Yield %	Price/Cash Flow	Sales	Book	Price/Earnings	Value Measures	Large-Cap	Blend	Stule	Total Fixed Income: 0	Cmt Market Liquidity Rate	Vanguard Total Intl Bd Id	Vanguard Total Bond Marke	Vanguard Total Intl Stock	Vanguard Total Stock Mkt	Share change since 08-31-19	Total Stocks: 0	Portfolio Analysis 09-30-19	16,483	17	2.43	0.00	0.00
Ä	\$mil:	Avg	Micro	Small		9.39	7.89	4.17	4.34	9.02	%	2.52	7.65	1.49	2.08	16.27		Jap			ne: O	⊥iquidity Ra	al Intl Bd I	al Bond M	al Intl Stoc	al Stock N	e 08-31-19		alysis ₀₀	22,007	9	2.23	0.00	010
		43,466	0.8	5.4		0.85	1.03	2.17	-0.91	0.98	Rel Category	1.03	0.99	0.96	0.95	0.98	Rel Category				Date of Maturity	ate	đ	arke	×	ſkt			9-30-19	21,636	7	2.16	0.00	0.00
	Industri Technlgy	 Energy 		Sensitive	E Heal Est		_	Basi			Weightings		¹ figure pro	Avg Wtd Coupon	Avg Credit Quality	Avg Eff Maturity	Avg Eff Duration ¹	Quality:	Duration: Moderate	Fived-Inc							Sector			27,446		2.40		0000
	nlgy	gy	CommSrvs	sitive	EST	Finansvcs		Basiciviat	~N/~+	<u>ער</u>	IS		¹ figure provided by fund as of 09-30-19	Coupon	it Quality	faturity	uration ¹	Medium	Moderate	ome Style	Amount 000						Υ			Net As	Turnov	Income	Fxnens	00000
00 00	11.23 18.66	5.01	3.35	38.25	4.41	17.03	17 00	4.04	A 07	38 26	70 UI	0/ -£	id as of 09-3					_			Value \$000					I	YTD Ret %			Net Assets \$mil	Turnover Rate %	Income Ratio %	Expense Ratio %	09110 4
103	0.99 1.25	0.99	1.03	1.11	0.49	0.98	0.00	1 07	0.00	0 90	Bmark 1		30-19	2.93%	A	8.8 Yrs	6.9				% Assets	0.05	3.02	7.14	35.90	53.89	% Assets							

MORNINGSTAR[®] Mutual Funds

Vanguard Target Retirement 2050 Inv

Benchmark 1: Morningstar Lifetime Mod 2050 TR USD Benchmark 2: Morningstar Mod Tgt Risk TR USD

🕄 Gold Morningstar Analyst Rating 04-25-19

Morningstar Pillars

Process	Process
Performance	Positive
People	Positive
Parent	Positive
Price	Price Positive

Morningstar Analyst Rating Morningstar evaluates mutual funds based on five key pillars, which its analysts believe lead to funds that are more likely to outperform over the long term on a risk adjusted basis.

Analyst Rating Spectrum

🕶 Gold

😇 Silver

😳 Bronze

Neutral

Negative

Pillar Spectrum

Positive		Negative	tive	0	Neutral
Perform	Performance 10-31-19	31-19			
	1st Otr	2nd Otr	3rd Otr	4th Otr	Total
2015	2.36	0.13	-7.94	4.31	-1.58
2016	0.77	1.81	4.79	1.25	8.85
2017	6.19	3.84	4.66	5.19	21.39
2018	-0.55	0.94	4.02	-11.79	-7.90
2019	11.50	3.47	0.29		
Trailing		+/- Bmark	+/- Bmark	%Rank	Growth of
	Return%	_	2	Cat	\$10,000
3 Mo	2.47	0.09	0.21	30	10,247
6 Mo	2.97	-0.22	-0.83	37	10,297
1 Yr	12.39	-0.28	-0.06	43	11,239
3 Yr Avg	10.97	0.02	2.41	34	13,664
5 Yr Avg	7.36	0.27	1.33	26	14,262

Tax Analysis 3 Yr (estimated) 5 Yr (estimated) 10 Yr (estimated) Tax Adj Rtn% 10.19 6.58 9.46 %Rank 12 15 Cat Tax-Cost Rat 0.70 0.72 0.62 %Rank Cat

6 6

10 Yr Avg 15 Yr Avg

10.15

0.37

2.34

18

26,283

Potential Capital Gain Exposure: 27% of assets

Morningstar's Take by Jason Kephart 04-25-19

The low-cost, straightforward approach behind the Vanguard Target Retirement series of target-date funds continues to earn the series a Morningstar Analyst Rating of Gold.

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The series' overall stock/bond split across the glide path has been in place since mid-2006. For the most part, it sticks close to the peer norm. The glide path

Rating and Risk	1,074	8	2.74	0.00	0.00	0.37	68	25.87	2.44	6.54	-4.44	28.31	19.11	2009		<					indring	Risk	Return	Historic	ent 2050 Inv
ind Risk	1,810	10	2.21	0.00	0.24	0.37	37	13.26	1.94	2.87	-1.58	15.20	21.40	2010			~~~	Ę			Above Avg	Average	Above Avg	Historical Profile)50 I
	2,415	15	1.79	0.00	0.01	0.44	14	-4.59	2.05	-3.13	0.93	-2.54	20.41	2011				Ž	>		<u>í</u> g		ĝ	œ	Ν
	3,820	4	2.70	0.00	0.01	0.49	44	13.20	2.39	3.54	-0.35	15.58	23.09	2012				Ś							
	6,052	9	2.36	0.00	0.00	0.52	30	22.10	2.24	10.04	1.51	24.34	28.19	2013					X	1					
	7,683	7	2.19	0.00	0.00	0.60	16	5.06	2.11	2.29	2.18	7.18	29.62	2014											
Port	8,090	18	2.11				45				1.62	-1.58	28.49	2015						}					VFI Tic
folio An:	10,165	54	2.24	0.00	0.03	0.59	29	6.79	2.06	0.28	-2.04	8.85	30.39	2016											Ticker VFIFX
Portfolio Analysis 09-30-19	14,635	22	2.24	0.00	0.01	0.68	38	19.14	2.25	6.73	0.61	21.39	36.20	2017											Yield 2.0%
-30-19	15,081	7	2.16	0.00	0.03	0.79	37	-10.07	2.18	-3.14	0.51	-7.90	32.52	2018							Ś				Total Assets \$20,137 mil
	20,137		2.40		0.00	0.00	50	18.42	0.00	3.43	-0.42	18.42	38.51	10-19							}	•			Assets 7 mil
	Net Assets \$mil	Turnover Rate %	Income Ratio %	Expense Ratio %	Capital Gains \$	Income \$	Total Rtn % Rank Cat	Capital Return %	Income Return %	+/- Bmark 2	+/- Bmark 1	Total Return %	NAV	History	Performance Quartile (within Category)	10.00	10.0	15.0 Benchmark 1		20.0 Investment Values of	30.0 75.0 Growth of \$10,000		Equity	Investment Style	Mstar Category Target-Date 2050

	10.97 0.91		Ratio	Mean Sharpe Ratio
	10 25		Standard Deviation	Standa
100	86		red	R-Squared
1.14	1.51			Beta
-0.5	-1.0			Alpha
Best Fit Index	Standard Index	Stand	Other Measures	Other N
			7.13	Incept
****	-Avg	+ Avg	10.15	10 Yr
****	Avg	+ Avg	7.36	5 Yr
****	Avg	Avg	10.97	3 Yr
			12.39	1 Yr
Risk-Adj Rating	Risk vs Cat	Rtn vs Cat	Return %	Period
Morningstar	Morningstar	Morningstar	Load-Adj	Time
			•	

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Cash
Stocks
Bonds
Other

1.4 88.4 0.2

• • 11 | Hlthcare Utilities

23.49 8.43 11.67 3.39

0.83

Foreign 3 (% of Stock)

39.6

		Annually	Income Distribution:	None	ЭĽ.
10Yr:\$192	5Yr:\$85	3Yr:\$48	Expense Projections:	Vanguard Group Inc	
	Dist:	Mgt:0.00% Dist:	Actual Fees:	06-07-06	
		0.00%	Management Fee:	www.vanguard.com	ress:
		No-load	Sales Fees:	800-662-7447	
	Add:	Ι	Min Auto Inv Plan:	Valley Forge, PA 19482	
IRA: —	Add: \$1	\$1000	Minimum Purchase:	Vanguard Chester Funds	

Inception: Advisor:

Subadviso

Web Addr

л <u>2</u> с -	an	0, 10	5	-0.5 1.14 100	Index	arr	683	2.19 7).60).00	16	2.29	18
Comp	Giant Large Mid	Long-Term Book Value Sales Cash Flow Historical E Market Cap	Value Measu Price/Earnin Price/Book Price/Sales Price/Cash Dividend Yi Growth Mea	Equity Style: Size:	Total I	→ Va	8,090 Por	0.00 2.11 18	0.59 0.09	-3.55 45	0.22 1.98	1.62
Composition - Net	45.4 30.4 18.0	Long-Term Erngs Book Value Sales Cash Flow Historical Erngs Market Cap %	Value Measures Price/Earnings Price/Book Price/Sales Price/Cash Flow Dividend Yield % Growth Measures	Style Blend Large-Cap	 Wanguard Total In Cmt Market Liqui 	Total Stocks: 0 Share change since 08-31-19 ⊕ Vanguard Total Stock 1 ⊕ Vanguard Total Intl Sto ⊕ Vanguard Total Bond N	10,165 folio An	0.00 2.24 54	0.59 0.03	6.79 29	0.28 2.06	-2.04
rt ● Cash ● Stocks ■ Bonds	Small Micro Avg \$mil:		16.27 2.08 1.49 7.65 2.52 %	Cáp	Vanguard Total Intl Bd Id Cmt Market Liquidity Rate tal Fixed Income: 0	al Stocks: 0 are change since 08-31-19 Vanguard Total Stock Mkt Vanguard Total Intl Stock Vanguard Total Bond Marke	090 10,165 14,635 15,08 Portfolio Analysis on 20 10	0.00 2.24 22	0.68 0.01	19.14 38	6.73 2.25	0.61
h 1.4 cks 88.4 ds 10.0	5.4 0.8 43,471	0.98 -0.71 2.05 1.04 0.86	Rel Category 0.99 0.96 0.97 0.97 0.97 1.02 1.02		te Date of Maturity	r-50-19 kt kk	15,081	0.00 2.16 7	0.79 0.03	-10.07 37	-3.14 2.18	0.51
→ Defensive CnsmrDef Htthcare	CommSrvs Energy		Avg Eff Duration ¹ Avg Eff Maturity Avg Credit Quality Avg Wtd Coupon ¹ figure provided by f	Fixed-Inc Duration: Quality:	of Ty Amount 000	Sector	20,137	2.40 	0.00 0.00	18.42 50	3.43 0.00	-0.42
iyy rDef are	nSrvs trl	al ' Svcs Svcs	Avg Eff Duration ¹ 8.8 Avg Eff Maturity 8.8 Avg Credit Quality 2.9 Avg Wtd Coupon 2.9 ¹ figure provided by fund as of 09-30-19 ¹ figure provided by f	ome Style Moderate Medium	nt 000	YID	Net Ass	Expense Ratio % Income Ratio % Turnover Rate %	Income \$ Capital Gains \$	Capital I Total Rt	+/- Bmark 2 Income Retu	+/- Bmark 1
23.49 8.43 11.67 3 30	38.25 3.35 5.01 11.23	38.26 4.84 11.98 17.03 4.41	as of 09-		Value \$000	YTD Ret %	Net Assets \$mil	Expense Ratio % Income Ratio % Turnover Rate %	\$ Gains \$	Capital Return % Total Rtn % Rank Cat	+/- Bmark 2 Income Return %	ark 1
1.03 1.14	1.11 1.03 0.99 0.99	0.95 0.95 0.98 0.98 0.98	6.9 8.8 Yrs A 2.93% 30-19 Rel		3.00 0.07 Assets	% Assets 53.89 35.88 7.16				; Cat	0	
					10							

Vanguard Target Retirement 2055 Inv

Benchmark 1: Morningstar Lifetime Mod 2055 TR USD Benchmark 2: Morningstar Mod Tgt Risk TR USD

🕄 Gold Morningstar Analyst Rating 04-25-19

Vlorningstar Pillars

1.1

morningera i ina e	
Process	Process Process
Performance	Positive
People	Positive
Parent	Positive
Price	Positive

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Norningstar Analyst Rating

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Morningstar evaluates mutual funds based on five key pillars, which its analysts believe lead to funds that are more likely to outperform over the long term on a risk-adjusted basis.

Analyst Rating Spectrum

🕶 Gold

😇 Silver

😳 Bronze

Neutral

Negative

Pillar Spectrum

Positive		 Negative 	ive	0	O Neutral
Performance 10-31-19	ance 10-	31-19			
	1st Otr	2nd Otr	3rd Otr	4th Otr	Total
2015	2.38	0.06	-8.00	4.28	-1.72
2016	0.78	1.80	4.81	1.26	8.88
2017	6.17	3.84	4.69	5.18	21.38
2018	-0.56	0.95	3.99	-11.76	-7.89
2019	11.50	3.48	0.27		
Trailing	Total	+/- Bmark -	+/- Bmark	%Rank	Growth of
	Return%	_	2	Cat	\$10,000
3 Mo	2.48		0.21	<u>з</u> 1	10,248
6 Mo	2.98	-0.17	-0.82	37	10,298
1 Yr	12.40		-0.06	44	11,240
3 Yr Avg	10.97		2.42	41	13,665
5 Yr Avg	7.33		1.30	27	14,242
10 Yr Avg					
15 Yr Avg	1				1

Tax Analysis T 3 Yr (estimated) 5 Yr (estimated) 10 Yr (estimated) Tax Adj Rtn% I) 10.22 6.62 %Rank Cat 12 13 Tax-Cost Rat 0.67 0.66 %Rank Cat 8 10

Potential Capital Gain Exposure: 17% of assets

Morningstar's Take by Jason Kephart 04-25-19

The low-cost, straightforward approach behind the Vanguard Target Retirement series of target-date funds continues to earn the series a Momingstar Analyst Rating of Gold.

options, if no longer the cheapest, over the long term. standing commitment to low costs inspires confidence that the series will continue to be one of the cheaper compression of target-date funds is likely to continue. meeting the demand for low costs, the fee cheaper than the median comparable peer at year-end now charges 0.09%, which was 0.41 percentage points class offered by peers. The series' cheapest share class points cheaper than the median for the cheapest share expense ratio, which was almost 0.60 percentage greatest advantage versus peers has been its low costs. In 2008, for example, the series had a 0.20%While its fee edge is on the decline, Vanguard's long-2018. Given target-date providers' heightened focus on Over the past decade, this target-date fund series

The series' overall stock/bond split across the glide path has been in place since mid-2006. For the most part, it sticks close to the peer norm. The glide path

Address:	Vanguard Chester Funds	Minimum Purchase:	\$1000	Add: \$1	IRA: —
	Valley Forge, PA 19482	Min Auto Inv Plan:		Add: —	
	800-662-7447	Sales Fees:	No-load		
Web Address:	www.vanguard.com	Management Fee:	0.00%		
Inception:	08-18-10	Actual Fees:	Mgt:0.00% Dist:	Dist:	
Advisor:	Vanguard Group Inc	Expense Projections:	3Yr:\$48	5Yr:\$85	10Yr:\$192
Subadvisor:	None	Income Distribution:	Annually		

	2.73 3 20	2.73 3	- 2.73	-	- 0.00	0.04	- 0.18							22.78	2009 2010		-	<u></u>				Above Avg	ġ	Return Ahnve Avn	Historical Profile	nt 2055 Inv	
		167	12	1.71	0.00	0.01	0.39	9	-3.98	1.72	-2.86	1.48	-2.27	21.86	2011			4	7							٦L	
		479	ω	2.76	0.00	0.01	0.45	48	13.54	2.04	3.54	-0.42	15.58	24.80	2012			4) \								
		1,127	9	2.39	0.00	0.00	0.48	36	22.41	1.92	10.02	1.84	24.33	30.35	2013)								
		1,875	7	2.22	0.00	0.01	0.55	16	5.37	1.83	2.31	2.45	7.19	31.98	2014						ķ						
Port		2,445	18	2.17	0.00	0.02	0.59	53	-3.57	1.85	0.07	1.62	-1.72	30.83	2015					4							!
Portfolio Analysis 09-30-19		3,752	8	2.27	0.00	0.00	0.65	27	6.76	2.12	0.31	-2.03	8.88	32.91	2016					4	}					VFFVX	-
alysis ₀₀		6,331	ъ	2.26	0.00	0.00	0.72	48	19.20	2.18	6.72	0.43	21.38	39.23	2017						X					Yield 2.0%	
9-30-19		7,366	_	2.18	0.00	0.00	0.83	37	-10.00	2.11	-3.13	0.68	-7.89	35.30	2018)			\$10,605 mil	•
		10,605		2.42		0.00	0.00	53	18.41	0.00	3.43	-0.38	18.41	41.80	10-19							The second secon	2			\$10,605 mil	
		Net Assets \$mil	Turnover Rate %	Income Ratio %	Expense Ratio %	Capital Gains \$	Income \$	Total Rtn % Rank Cat	Capital Return %	Income Return %	+/- Bmark 2	+/- Bmark 1	Total Return %	NAV	History	Performance Quartile (within Category)	10.0	10 0		15.0 — Investment Values of	Fund		25.0	Equity	Investment Style	Mstar Category Target-Date 2055	

Ratin	Rating and Risk			
Time	Load-Adj	Morningstar	Morningstar	Morningstar
Period	Return %	Rtn vs Cat		Risk-Adj Rating
1 Yr	12.40			
3 Yr	10.97	Avg	Avg	***
5 Yr	7.33	+ Avg	-Avg	-Avg ****
10 Yr		I	I	
Incept	10.24			
Other Measures	easures	Standa	Standard Index	Best Fit Index
Alpha			-1.0	-0.5
Beta			1.51	1.14

Standard Index	Best Fit Index
-1.0	-0.5
1.51	1.14
86	100
10.22	
10.97	
0.01	
	Standard Index -1.0 1.51 98 10.22 10.97 0.91

the norm, leaving investors more at risk of a bear market near the retirement date. years to retirement and continues to decline until arriving at a 30% equity stake seven years after equity exposure; both 6 percentage points higher than 59% equity exposure and at retirement it has 50% peaks. Five years from retirement, the glide path has account balances can be expected to be near their most from the peer average near retirement when retirement. The series' equity glide path deviates the starts with a 90% equity exposure until a fund hits 25

bonds low, but it also means the performance of the U.S. dollar can have a big impact on returns, particularly when international bonds have historically low yields, like now. The currency hedge keeps the volatility of the foreign that tracks developed-markets debt for the exposure bonds as peers. It uses a currency-hedged index fund stands out for its roughly double allocation to foreign From a sub-asset-class perspective, the series'

Foreign 39.6 (% of Stock)

<																				1	8.	Ρċ	ר≍ר		g			- 0			- 07	7		01	66		
				Compo		MID	Large	Giant	Market Cap %	Histori	Cash Flow	Book Value	Long-T	Growth	Divide	Price/(Price/Sales	Prine/Ronk	Value N	Size:	Style:	Equity Style	Total F	⊕⊕⊕ Var ar Cm		Port Total S	2,445	2.17 18	0.00	0.02	53	-3.57	0.07	1.62	30.83 -1.72	2015	
			7	Composition - Net		18.0		5.4	Can %	Historical Frngs	Inw	/alue	Long-Term Erngs	Growth Measures	Dividend Yield %	Price/Cash Flow	ales	r iice/Eaniiigs Price/Book	Value Measures	Large-Uap	Blend	Style	Total Fixed Income: 0	nguard Tota nguard Tota nguard Tota t Market L	Share change since 08-31-19 ⊕ Vanguard Total Stock N	Portfolio Ana Total Stocks: 0	3,752	2.27 8	0.00	0.00	27	6.76	0.31	-2.03	32.91 8.88	2016	
Foreign	Bonds	 Stocks 	 Cash 	-	φΠΠ.	¢mil∙	Micro	Small	0.00	9.40	4.17 7 80	4.34	9.02		2.52	7.65	1 49	2 08		ap			10: 0	Vanguard Total Intl Stock Vanguard Total Bond Marke Vanguard Total Intl Bd Id Cmt Market Liquidity Rate	re change since 08-31-19 Vanguard Total Stock Mkt	Portfolio Analysis 09-30-19 otal Stocks: 0	6,331	2.26 ج	0.00	0.00	48	19.20	6.72	0.43	39.23 21.38	2017	
er U.z 9.10 39.6						43,48/	0.8	5.4	0.00	0.85	1.09	-0.92	0.98	Rel Category	1.03	0.99	96.0	0.30	Rel Category				Date of Maturity	arke te	Ā	-30-19	7,366	2.18 5	0.00	0.00	37	-10.00	-3.13	0.68	35.30 -7.89	2018	
	 Utilities 				Technlar				🖻 Rea	_		_	Cvclical	Sector Weightings		¹ figure pr	Avg Wtd Colloon	Avg Credit Onali	Avg Eff Duration ¹	Quality:	Duration:	Fixed-Inc			Sector		10,605	2.42		0.00	53	18.41	3.43	-0.38	41.80 18.41	10-19	
	ties	Hithcare	CnemrDef	Defensive	Technlav	rgy	CommSrvs	Sensitive	Real Est	FinanSvcs	CnsmrCyc	BasicMat	lical	g		¹ figure provided by fund as of 09-30-19	Avg Whd Colloon	viaturity tit Oriality	Ouration ¹	Medium	Moderate	Fixed-Income Style	Amount 000				Net A	Incorr	Exper	Capital Ga	Total I	Capita	+/- B	+/- B	NAV Total I	History	Perfor (withir
	3.39	11 68	8 43	23.50	18.66	11 23	ο 2.25	38.25	4.41	17.03	11.98	4.84	38.26	% of Stocks	2	nd as of 09-				_			Value \$000		YTD Ret %		Net Assets \$mil	Income Ratio % Turnover Bate %	Expense Ratio %	ncome	Total Rtn % Rank Cat	Capital Return %	+/- Bmark 2	+/- Bmark 1	NAV Total Return %	οrγ	Performance Quartile (within Category)
	0.84	1 15	1 01	1.04	1.26	0.99 0 qq	1.04	1.11	0.48	0.97	1.06	0.93	0.89	Hel Bmark 1		30-19	2 94%	0.0 TIS	6.9				% Assets	35.84 7.17 2.96 0.13	% Assets 53.91				Ū		k Cat	0.6	~				artile
																							11														

Vanguard Target Retirement 2060 Inv

Benchmark 1: Morningstar Lifetime Mod 2060 TR USD Benchmark 2: Morningstar Mod Tgt Risk TR USD

Morningstar Analyst Rating 04-25-19

🕄 Gold Morningstar Pillars

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no ngota i na o	
Process	Process Process
Performance	Positive
People	Positive
Parent	
Price	Positive

Morningstar Analyst Rating

Morningstar evaluates mutual funds based on five key pillars, which its analysts believe lead to funds that are more likely to outperform over the long term on a risk-adjusted basis.

Analyst Rating Spectrum

😋 Gold

😨 Silver

😳 Bronze

Neutral

Negative

Pillar Spectrum	H				
Positive		Negative	tive	0	Neutral
Performa	Performance 10-31-19	31-19			
	1st Otr	2nd Qtr	3rd Otr	4th Otr	Total
2015	2.38	0.07	-8.00	4.31	-1.68
2016	0.77	1.79	4.80	1.25	8.84
2017	6.16	3.86	4.65	5.17	21.36
2018	-0.52	0.93	4.00	-11.77	-7.87
2019	11.48	3.48	0.28		I
Trailing	Total +	+/- Bmark	+/- Bmark	%Rank	Growth of
		_	2	Cat	\$10,000
3 Mo	2.50	0.10	0.23	25	10,250
6 Mo	2.98	-0.13	-0.82	39	10,298
1 Yr	12.40	-0.24	-0.05	47	11,240
3 Yr Avg	10.97	0.14	2.42	46	13,666
5 Yr Avg	7.33	0.39	1.31	60	14,245
10 V- 1					

Tax Analysis T 3 Yr (estimated) 5 Yr (estimated) 6 Mo 1 Yr 3 Yr Avg 5 Yr Avg 10 Yr Avg 15 Yr Avg 10 Yr (estimated) Tax Adj Rtn% I) 10.34 6.70 %Rank Cat 15 22 Tax-Cost Rat 0.57 0.59 %Rank Cat 5

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Potential Capital Gain Exposure: 15% of assets

Morningstar's Take by Jason Kephart 04-25-19

The low-cost, straightforward approach behind the Vanguard Target Retirement series of target-date funds continues to earn the series a Momingstar Analyst Rating of Gold.

options, if no longer the cheapest, over the long term. standing commitment to low costs inspires confidence that the series will continue to be one of the cheaper compression of target-date funds is likely to continue. meeting the demand for low costs, the fee cheaper than the median comparable peer at year-end now charges 0.09%, which was 0.41 percentage points class offered by peers. The series' cheapest share class points cheaper than the median for the cheapest share expense ratio, which was almost 0.60 percentage greatest advantage versus peers has been its low costs. In 2008, for example, the series had a 0.20%While its fee edge is on the decline, Vanguard's long-2018. Given target-date providers' heightened focus on Over the past decade, this target-date fund series

The series' overall stock/bond split across the glide path has been in place since mid-2006. For the most part, it sticks close to the peer norm. The glide path

Advisor: Subadvisor:	Inception:	Web Address:			Address:
Vanguard Group Inc None	01-19-12	www.vanguard.com	800-662-7447	Valley Forge, PA 19482	Vanguard Chester Funds
Expense Projections: Income Distribution:	Actual Fees:	Management Fee:	Sales Fees:	Min Auto Inv Plan:	Minimum Purchase:
3Yr:\$48 Annually	Mgt:0.00	0.00%	No-load		\$1000
5Yr:\$85	Mgt:0.00% Dist:			Add:	Add: \$1
10Yr:\$192					IRA: —

		נו-טט-נ		Total Stocks: 0	Total S	ningetar	netar Mor	Mornin	Morningstar Morningstar Morningstar	I nod Adi	
		1 20 10	Portfolio Analysis on 20 10	folio An	Port					ating and Risk	latino :
						_			_	_	
Net Assets \$mil	4,560	3,014	2,405	1,272	819	558	287	56			
Turnover Rate %		ω		6	21	11	10	40			
Income Ratio %	2.42	2.19	2.28	2.28	2.19	2.25	2.45	2.99			
Expense Ratio %		0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Capital Gains \$	0.00	0.00	0.00	0.00	0.02	0.01	0.00	0.01		1	
Income \$	0.00	0.72	0.61	0.57	0.50	0.46	0.37	0.32			
Total Rtn % Rank Cat	61	34	53	21	71	_	_				
Capital Return %	18.41	-9.94	19.24	6.73	-3.47	5.43	22.66				
Income Return %	0.00	2.07	2.11	2.11	1.78	1.73	1.68				
+/- Bmark 2	3.42	-3.11	6.70	0.27	0.11	2.27	10.04				
+/- Bmark 1	-0.29	0.82	0.30	-2.03	1.80	2.63	2.17				
Total Return %	18.41	-7.87	21.36	8.84	-1.68	7.16	24.35				
NAV	36.92	31.18	34.63	29.04	27.21	28.20	26.75	21.81			
History	10-19	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Performance Quartile (within Category)											
10.0								R			
1 Z.U							7				
Benchmark 1					<	4	5				
14.0 — Investment Values of				5							
16.0 Fund			Ì								
									L	Neutral	
20.0	Ž									***	lating
										Below Avg	lisk
Equity									e	listorical Profile	listorio
have been been been been been been been be]					
Target-Date 2060+) mil	\$4,560 mil	1.9%	VTTSX	YT:				INV		
Mstar Catenory	Total Assets	Total	Vield	Ticker	ī					202	2

-0.5	-1.0			Alpha
Best Fit Index	Standard Index	Standa	Other Measures	Other M
			9.93	Incept
			I	10 Yr
-Avg ***	-Avg	Avg	7.33	5 Yr
***	Avg	Avg	10.97	3 Yr
			12.40	1 Yr
Risk vs Cat Risk-Adj Rating	Risk vs Cat	Rtn vs Cat	Return %	Period
Morningstar	Morningstar	Morningstar	Load-Adj	Time
		^	Rating and Risk	Ratin

Other Measures	Standard Index	Best Fit Index
Alpha	-1.0	-0.5
Beta	1.51	1.14
R-Squared	86	100
Standard Deviation	10.24	
Mean	10.97	
Sharpe Ratio	0.91	

the norm, leaving investors more at risk of a bear market near the retirement date. years to retirement and continues to decline until arriving at a 30% equity stake seven years after equity exposure; both 6 percentage points higher than 59% equity exposure and at retirement it has 50% peaks. Five years from retirement, the glide path has account balances can be expected to be near their most from the peer average near retirement when retirement. The series' equity glide path deviates the starts with a 90% equity exposure until a fund hits 25

bonds low, but it also means the performance of the U.S. dollar can have a big impact on returns, particularly when international bonds have historically low yields, like now. The currency hedge keeps the volatility of the foreign that tracks developed-markets debt for the exposure bonds as peers. It uses a currency-hedged index fund stands out for its roughly double allocation to foreign From a sub-asset-class perspective, the series'

Foreign 3 (% of Stock)

39.5

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Vanguard Target Retirement Income Inv

Ticker VTINX

Yield 2.5%

Total Assets \$17,099 mil

Mstar Category Target-Date Retirement

Benchmark 1: Morningstar Lifetime Mod Incm TR USD Benchmark 2: Morningstar Mod Tgt Risk TR USD

🕄 Gold Morningstar Analyst Rating 04-25-19

Morningstar Pillars

Join 1 110	
Process	Process Process
Performance	Positive
People	Positive
Parent	Positive
Price	Positive

Morningstar Analyst Rating

Morningstar evaluates mutual funds based on five key pillars, which its analysts believe lead to funds that are more likely to outperform over the long term on a risk-adjusted basis.

Analyst Rating Spectrum

🕶 Gold

😨 Silver

😳 Bronze

Neutral

Negative

Pillar Spectrum

• Positive		• Negative	tive	0	O Neutral
Performance 10-31-19	ance 10-3	31-19			
	1st Otr	2nd Otr	3rd Otr	4th Otr	Total
2015	1.75	-0.93	-2.11	1.16	-0.17
2016	2.35	1.90	1.93	-0.99	5.25
2017	2.45	1.77	1.96	2.03	8.47
2018	-0.50	0.43	1.33	-3.20	-1.99
2019	5.50	2.97	1.52		
Trailing	Total +	+/- Bmark	+/- Bmark	%Rank	Growth of
	Return%	_	2	Cat	\$10,000
3 Mo	1.96	0.42	-0.31	34	10, 196
6 Mo	4.20	0.94	0.40	24	10,420
1 Yr	10.54	1.19	-1.91	31	11,054
3 Yr Avg	5.76	0.01	-2.80	40	11,828
5 Yr Avg	4.53	0.34	-1.50	23	12,479
10 Yr Avg	5.86	0.13	-1.95	34	17,679
15 Yr Avg	5.19	-0.28	-1.58	26	21,354

Potential Capital Gain Exposure: 16% of assets 10 Yr (estimated) 3.48 4.88 23 23 t Tax-Cost Rat 1.05 1.01 0.93

Tax Analysis 3 Yr (estimated)

Tax Adj Rtn% 1) 4.65

%Rank Cat

%Rank Cat 29 26 17

5 Yr (estimated)

Morningstar's Take by Jason Kephart 04-25-19

continues to earn the series a Morningstar Analyst The low-cost, straightforward approach behind the Vanguard Target Retirement series of target-date funds Rating of Gold.

options, if no longer the cheapest, over the long term. standing commitment to low costs inspires confidence that the series will continue to be one of the cheaper compression of target-date funds is likely to continue. meeting the demand for low costs, the fee cheaper than the median comparable peer at year-end now charges 0.09%, which was 0.41 percentage points class offered by peers. The series' cheapest share class points cheaper than the median for the cheapest share expense ratio, which was almost 0.60 percentage greatest advantage versus peers has been its low costs. In 2008, for example, the series had a 0.20%While its fee edge is on the decline, Vanguard's long-2018. Given target-date providers' heightened focus on Over the past decade, this target-date fund series

The series' overall stock/bond split across the glide path has been in place since mid-2006. For the most part, it sticks close to the peer norm. The glide path

		J17 2018 3.55 12.75 8.847 -1.99 0.07 0.21 5.18 2.77 2.23 2.55 6.24 -4.54 6.23 2.55 6.24 -4.54 0.028 0.34 0.028 0.34 0.028 0.34 1.90 2.47 1.70 2.47	
2016 2016 12.81 5.25 0.73 3.24 2.01 3.24 3.24 3.24 3.24 3.24 3.24 3.24 3.24	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
2016 2016 2016 2.2.01 5.25 2.2.01 6 3.24 41 7 0.025 3.0.25 3.00 3.00 3.00 3.00 3.00 3.00 3.00 3.0	2016 2016 2016 2.2.01 5.25 2.2.01 6 3.24 41 7 0.025 3.0.25 3.00 3.00 3.00 3.00 3.00 3.00 3.00 3.0	2016 2017 2016 2017 2.3.32 -6.07 2.3.32 -6.18 3.24 6.24 0.04 6.24 0.05 0.26 0.06 0.06 1.1.8 1.90	$\begin{array}{c c c c c c c c c c c c c c c c c c c $
	2017 13.55 6.24 6.24 6.24 6.24 0.06 0.06	2017 13.55 6.24 6.24 6.24 6.24 0.06 0.06	$\begin{array}{c c c c c c c c c c c c c c c c c c c $
			2018 10-19 12.75 13.96 -1.99 11.16 0.277 -3.82 2.55 1.16 0.35 9.52 2.17 -3.82 2.55 1.64 9.52 2.1 0.19 0.00 0.34 0.21 0.19 0.00

	1.11		Ratio	Sharpe Ratio
	5.76			Mean
	3.61		Standard Deviation	Standa
96	87		red	R-Squared
0.77	0.50			Beta
0.3	0.6			Alpha
Best Fit Index	Standard Index	Standa	Other Measures	Other N
			5.31	Incept
****	-Avg	Avg	5.86	10 Yr
****	-Avg	+ Avg	4.53	5 Yr
***	-Avg	Avg	5.76	3 Yr
			10.54	1 Yr
Risk-Adj Rating	Risk vs Cat	Rtn vs Cat	Return %	Period
Morningstar	Morningstar	Morningstar	Load-Adj	Time
			Rating and Risk	Ratin

the norm, leaving investors more at risk of a bear market near the retirement date. years to retirement and continues to decline until arriving at a 30% equity stake seven years after equity exposure; both 6 percentage points higher than 59% equity exposure and at retirement it has 50% peaks. Five years from retirement, the glide path has account balances can be expected to be near their most from the peer average near retirement when retirement. The series' equity glide path deviates the starts with a 90% equity exposure until a fund hits 25

bonds low, but it also means the performance of the U.S. dollar can have a big impact on returns, particularly when international bonds have historically low yields, like now. The currency hedge keeps the volatility of the foreign that tracks developed-markets debt for the exposure bonds as peers. It uses a currency-hedged index fund stands out for its roughly double allocation to foreign From a sub-asset-class perspective, the series'

Foreign 39.0 (% of Stock)

		Quarterly	Income Distribution:	None	
10Yr:\$154	5Yr:\$68	3Yr:\$39	Expense Projections:	Vanguard Group Inc	
	% Dist:—	Mgt:0.00% Dist:	Actual Fees:	10-27-03	
		0.00%	Management Fee:	www.vanguard.com	ess:
		No-load	Sales Fees:	800-662-7447	
	Add: —		Min Auto Inv Plan:	Valley Forge, PA 19482	
IRA:	Add: \$1	\$1000	Minimum Purchase:	Vanguard Chester Funds	

Inception:

Advisor: Web Addre

Subadvisor

	Composition - Net			Large 3	t Cap	Historical Erngs	Cash Flow	Sales	Long-lerm Erngs	Growth Measures	Dividend Yield %	Price/Cash Flow	Price/Sales	Price/Book	Price/Earnings	Value Measures		Equity Style Style: Bi	Total Fixed Income: 0	Cmt Market Liquidity Rate				Vanguard Total Stock Mkt		Portfolio Analysis 09-30-19	10,296 10,516	<u> </u>		_		0 66.0	-1.96 3.
	- Net	ş		30.4 M	2	ngs			rngs	ures	id %	low			Sb	S	Large-Cap	le Blend	ncome:	ket Liqu	l Total I	Total	i Shrt-Ti	Total S	since 08	Analy		—	1.78	0.00	0.04	2 ⁴	3.24
 Cash Stocks Bonds Other Foreign 	1	\$mil:	ũ	Micro	=	9.45	7.95	4.19	9.03		2.51	7.67	1.50	2.09	16.30	_			0	uidity Ra	ntl Stocl	ntl Bd Id	erm Infl-	Stock M	31-19	/sis 09	16,885	17	1.90	0.00	0.06	20	6.24
h 1.1 cks 29.7 ds 68.9 er 0.3 ign 39.0			43,766	0.8	л ч	0.89	2.36	-7.53	1.03	Rel Category	0.89	0.99	0.97	0.97	1.00	Rel Category			Date of Maturity	te	~		<u>ة</u> 0-	ITRE	-	-30-19	15,643	1	2.47		0.19	17	-4.54
CnsmrDefHithcareUtilities	_ `	Industri Industri		_		Real Fet	_		℃yclical	Sector Weightings		¹ figure prov	Avg Wtd Coupon	Avg Credit Quality	Avg Eff Maturity	Avg Eff Duration ¹		Fixed-Income Style Duration: Moderate							Sector		17,099	1	2.80		0.00	0 91 20	9.52
rDef are ss	sive	lav ^{Fri}	~	SNS	live	SVCS	rUyc	Mat	a			¹ figure provided by fund as of 09-30-19	Coupon	Quality	aturity	ration ¹	High	me Style Moderate	Amount 000						YTD		Net Assets \$mil	Turnove	Income Ratio %	Expense	Capital Gains \$	lotal Ktn % Kank Lat	Capital
8.41 11.70 3.39	23.50	11.22 18.73	5.00	3.35	38.30	4 41	17.00 86.1.1	4.80	38.19	% of Stocks	2	as of 09-							Value \$000						YTD Ret %		ets \$mi	Turnover Rate %	Ratio %	Expense Ratio %	¢ Gains \$	n % Han	Capital Return %
1.00 1.08 0.81	1.00	1.UZ	1.03	1.03	1.12	0.39	1.12	1.12	0.90	Hel Bmark 1		-30-19	2.32%	AA	7.4 Yrs	5.9			% Assets	0.02	11.85	16.12	16.61	37.11	% Assets					0`		k Lat	ר <u>ס</u>
																			4	~													

Release date 10-31-2019 | Note: Portions of the analysis are based on pre-inception returns. Please read disclosure for more information

Cap Value R6 (USD) Wells Fargo Special Mi

Unsubsidized	Unsu	Subsidized	SL		
	232	335	369	417	No. in Cat
	ω	8	16	-	% Rank Cat
I	0.79	1.40	1.37	8.12	+/- Cat Index
	-0.01	-2.43	-4.64	3.87	+/- Std Index
11.07	13.69	8.35	10.27	18.20	Total Return
10.95		8.87		8.28	Std 09-30-2019
11.07		8.35	10.27	18.20	Load-adj Mthly
Incept	10 Yr	5 Yr	3 Yr	1 Yr	Trailing Returns
27.53		2.62	5.41	16.05	2019
-13.02	-13.74	3.09	0.51	-2.69	2018
11.27	4.08	2.94	1.80	2.03	2017
Total %	4th Otr	3rd Qtr	2nd Otr	1st Qtr	Quarterly Returns
				-31-2019	Performance 10-31-2019

30-day SEC Yield Performance Disclosure

7-day Yield

(if applicable) Morningstar metrics. derived from a weighted average of the three-, five-, and 10-ye The Overall Morningstar Rating is based on risk-adjusted return

The performance data quoted represents past performance and does not guarantee future results. The investment return and their original cost. shares, when sold or redeemed, may be worth more or less than principal value of an investment will fluctuate; thus an investor's

https://www.wellsfargofunds.com/ month-end, please call 800-222-8222 or visit quoted herein. For performance data current to the most recent Current performance may be lower or higher than return data

Fees and Expenses

Sales Charges

Deferred Load % Front-End Load %

Å Å

Morningstor Dotum	Morningstar Risk	Morningstar Rating TM	36	Risk and Return Profile	Gross Expense Ratio %	Net Expense Ratio %	12b1 Expense %	Management Fees %	Fund Expenses
>	-Avg	4★	3 Yr 369 funds						
1:24	-Avg	5 ★	5 Yr 335 funds						
			23						

0.67 **0.73** 0.73

95.05	74	86.74	R-Squared
0.91	86	0.98	Beta
-1.12	ß	-3.85	Alpha
Core TR USD)		
Best Fit Index		Standard Index	MPT Statistics
0.95	0.64	0.70	Sharpe Ratio
13.69	8.35	10.27	Mean
13.92	11.95	n 12.74	Standard Deviatior
10 Yr	5 Yr	3 Yr	
High	High	m +Avg	Morningstar Return
-Avg	-Avg	-Avg	Morningstar Risk
5☆	5 ★	ig™ 4 ★	Morningstar Rating TM
10 Yr 232 funds	5 Yr 335 funds	3 Yr 369 funds	

Objective: Tenure: Manager: Family: Operations Potential Cap Gains Exp 12-Month Yield Growth 10.8 Years Multiple Wells Fargo Funds

NISI Ticker:

Base Currency:

WFPRX

Incept: Type:

> 06-28-2013 ₽

Purchase Constraints:

US94987W5132

USD

Minimum Initial Purchase:

S

Total Assets:

\$9,682.38 mil ₹ 16.11%

or's nan	Ы	'ear	rns,			dized				1.07	0.95	1 ncept	7.53	3.02	tal %				
Asset Allocation % Cash US Stocks Non-US Stocks Ronds	Portfoli	Ι		7.21 8.66	-29.78		2008			٤					100		appin		
ocation ⁹ ks Stocks	Portfolio Analysis 09-30-2019	1	3	-1.78	32.43		2009		<						97	09-30-2019	😨 Silver º	Rating TM	Morningstar Quantitative
6	sis 09-3		9	5.61 -4.07	20.68		2010								97	19	Ч, о		Istar () III
0 -	0-2019			-2.67 N 82	-0.56		2011			X)				94	_			antitativ
Net % 5.74 90.87 3.39				2.91 N 41	18.91		2012								96	_	ω		
Long % 5.74 90.87 3.39 0.00			00	6.75 5.68	39.13	31.65	2013			Ň					94	_	369 US Fund Mid-Cap Value	****	Overall Morningstar Rating TM Standard Index
Short % 0.00 0.00 0.00		460	24	-2 63	12.12	32.27	2014								92	_	Ind Mid-	~	forning
, Share Chg) since) 08-2019		471	24	-4.03	-2.65	30.05	2015				Ì				94	_	-Cap Val		xtar Rati
7		399	20	9.72 1.69		36.03	2016								93			2 2	N ^M
Share I Amount I 2 mil I 7 mil I		405		-10.56	11.27	38.35	2017								94	-		S&P 500 TR USD	andard
Holdings : 66 Total Stocks , 23 37% Turnover Ratio Kansas City Sou Brown & Brown		417	50	-8.64 -0.74	-13.02	32.47	2018					J			99	_		"R USD	Index
Holdings : 66 Total Stocks , 237 Total 37% Tumover Ratio Kansas City Southern Brown & Brown Inc		417	;	4.37 7.42	27.53	41.41	10-19								94		Value	Russel	Cater
Haldings: 66 Total Stocks , 237 Total Fixed-Income, 37% Tumover Ratio Kansas City Southern Brown & Brown Inc		No. of Funds in Cat	% Rank Cat	+/- Standard Index +/- Category Index	Total Return %	NAV/Price	History	Performance Quartile (within category)	·4	^{10k}	22,107		Wells Fargo Special Mid Cap	80k Growth of \$10,000	Investment Style Equity Stocks %				Category Index Morningstar Cat
Net Assets % 2.90 2.87													ial Mid Cap				-	d-Can	Ir Cat

Americas Greater Europe Greater Asia	B B Bellow B NR NR	Credit Quality Breakdown – AAA AA A BBB BBB	J paw (q)H	Asset Allocation % Cash US Stocks Non-US Stocks Bonds Other/Not Clsfd Total Equity Style Value Bland Grawth
97.4 1.7 0.9	Stocks %	down —	Geo Avg Mkt Cap Smil Avg Eff Maturity Avg Eff Duration Avg Wtd Coupon Avg Wtd Price	Net % 5.74 90.87 3.39 0.00 0.00 Portolio Statistics P/C Ratio TTM P/C Ratio TTM D/D Botio TTM
0.98 1.89 16.15	Rel Std Index	Bond %	1.3 0.00 1.00 14272 0.12 1.33 	Show a second se
 → Defensive ☐ Consumer Defensive ☐ Healthcare ☑ Utilities 		Sector Weightings Cyclical Basic Materials Consumer Cyclical Financial Services Real Estate Sensitive	 ⊕ ⊕ ① 2 mil 3 mil 2 mil 2 mil 	Share Chg Share since Amount 08-2019 2 mil 7 mil 7 mil 7 mil 3 mil 3 mil 3 mil 3 mil
22.1 3.3 9.5 9.4		Stocks % 48.8 4.2 clical 14.0 vices 20.6 10.0 29.0	American Water Works Co Inc CBRE Group Inc Class A Allstate Corp Molson Coors Brewing Co B Loews Corp PPG Industries Inc Varian Medical Systems Inc	Holdings : 66 Total Stocks , 237 Total Fixed-Income, 37% Turnover Ratio Brown & Brown Inc Amdocs Ltd Jacobs Engineering Group Inc Ameren Corp American Electric Power Co Inc Arch Capital Group Ltd Republic Services Inc Class A
0.87 0.42 0.67 2.70	0.00 1.40 1.57 0.39	Hel Std Index 1. 58 1.42 1.31 3.18 0.67	2.20 2.18 2.03 1.97 1.94 1.94	Net Assets % 2.90 2.74 2.77 2.37 47

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