



LANE COUNTY
457 Deferred Compensation and
401(a) Defined Contribution Plans
December 31, 2022 Performance Report

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Section 1



CONSTRUCTIVE VIEWS ON PRODUCTIVITY

2022 contained no shortage of high-level events across the spectrum: military conflicts, continued pandemic, a bear market, inflation, aggressive monetary policy, and many more which continue into 2023. The importance of these notwithstanding, this article pivots to discuss a longer-term subject whose course has been influenced by 2022 and the era leading up to it: productivity. From the aftermath of the Great Financial Crisis (GFC) up to the start of COVID, productivity growth lagged longer-term averages and was not broadly dispersed throughout the myriad of sectors in the broader economy. Looking forward, factors on the supply side, which combined with demographic trends offer several avenues for new and productivity-enhancing capital expansion. After all last year's difficulties, it's nice to talk about something positive for a change!

Households and corporations still have substantially healthy balance sheets. Corporate cash levels are high, debt maturities are several years out, and leverage ratios are well below long-term trends. Banks in particular, the proverbial switch-board of capital, maintain excess capital thanks in part to controls set after the GFC. Good to know the funds are there, but who and what will the productivity come from? The US workforce is expected to get younger on average in the years to come, ushering in workers with a more natural proclivity to new technology and the potential for increased automation. This demographic transformation comes on the back of several recent years of increased venture capital funding bringing superior computing products to a more tractable labor market. More expensive financing via higher interest rates may also compel companies to leverage new technology to remain profitable.

The ingredients for productivity growth being there, where in particular might the capital expenditure money go? One of the offshoots more directly linked to the pandemic is the digitization of business models, wherein artificial intelligence and machine learning was originally substituted in for traditional R&D to help expedite the production of mRNA technologies, it has the potential for application across many other industries. Another is the adoption of hybrid or remote working, allowing increased labor mobility, reduced time lost to commuting, and more business start-ups bringing unique, new products to market. Spending on decarbonization from the Inflation Reduction Act, to come via fiscal and public/private partnership spending, also has the potential to add hundreds of billions of dollars to domestic output in new technologies. While other areas such as increases in defense and infrastructure spending also can bolster productivity, the economy-wide possibilities are varied and endless.

This article's optimistic hypotheses, which may take years to unfold, illustrate one of the benefits of a dynamic and open economy that is easily overlooked in stressful times: the potential for positive surprises. COVID's damages being what they are, many of the financial reactions to it when combined with other technological and demographic trends have the potential to positively transform economic lives for years to come. Such transformation arguably could not be as easily achieved in a more economically stagnant, sedate, or otherwise closed environment. Although the productivity gains we are hoping for are by no means guaranteed; the ingredients are there and the prospect reminds investors that the long-run can pack a lot of upside, even if the recent past has been anything but easy.¹

¹Source: Morgan Stanley Global Investment Committee Special Report by Lisa Shalett, The Next American Productivity Renaissance, January 4, 2023

GLOBAL ECONOMIC LANDSCAPE

- As expected by a consensus of forecasters, inflation as measured by CPI came down in December 2022 for a second month; 7.0% at the headline level and 6.0% at core. In turn, the Fed lowered the pace of rate hikes to 50 basis points at its December meeting, bringing the fed funds rate to 4.5%. While there is reason to be sanguine about inflation, sticky prices in services and the tightness of the labor market are wildcards which the Fed has explicitly cited as risks. Despite the Fed's hawkish rhetoric which raised the terminal rate and pushed out guidance on first rate cuts, the market discounted only 25 to 50 basis points more in hikes and aggressive rate cuts by June. With financial conditions quite loose, the Fed has room to deliver negative surprises².
- The rise in Treasury yields may well challenge the US Government's ability to finance operations. For example, as of year-end 2022, nearly 30% of US Government debt was scheduled to mature within one year and approximately another 20% has a maturity date of between one and three years. One implication is that increased borrowing costs will crowd out discretionary spending. Another is that the Treasury may seek to issue longer-term debt which, thanks to an inverted yield curve, entails lower borrowing costs³.
- According to a Federal Reserve Report in November 2022 ("What Happens in China Does Not Stay in China"), policy-driven increases in China's credit may provide a tailwind for energy and commodity prices. For example, the International Energy Agency noted that China's demand for oil dropped by the greatest amount in over three decades due to lockdowns. Factors such as a re-opening in travel, an uptick in property demand, combined with relatively low inventory levels of copper and aluminum have the potential to stoke demand⁴.

GLOBAL FINANCIAL MARKETS

- In 2022, persistent global inflationary pressures and coordinated central bank rate hikes led equities to decline to bear market lows and fixed income to experience the sharpest losses in decades. This was the first time in modern history where both US stocks and long-term bonds declined by double digits in a year. The traditional 60% stock/40% bond portfolio lost -16.1% in 2022, the worst return in more than 50 years⁵.
- The US Dollar retreated in value from its peak on September 28, 2022, suggesting that investors believe the Fed is near the end of its tightening cycle. This in turn has been viewed positively for Emerging Markets in terms of their ability to attract, compete in export markets, raise capital by issuing dollar-denominated debt, and otherwise develop economically⁶.
- Despite being viewed as an inflation-hedge, Real Estate Investment Trusts (REITs) saw their second worst year on record in 2022 (the worst being 2008), returning -24.5% versus -18.1% for the S&P 500. Although operating income growth was above historical averages, valuation metrics such as rising interest rates and credit spreads, as well as declining earnings expectations and falling private market valuations presented a formidable headwind for the sector⁷.
- Gold typically trades inversely with real, or inflation-adjusted, yields. Falling real yields support the yellow metal and rising yields on inflation-protection securities drive losses. With the 10-year US Treasury real yield having backed up by nearly 280 basis points in 2022 to 1.6% from an extremely negative

² Source: Morgan Stanley Global Investment Committee Weekly December 19, 2022

³ Source: Morgan Stanley Global Investment Committee Weekly January 9, 2023

⁴ Source: Morgan Stanley, A Few Things We're Thinking About, by Christopher Baxter, January 5, 2023

⁵ Source: Morgan Stanley, Client Commentary, January 2023

⁶ Source: Morgan Stanley, A Few Things We're Thinking About, by Christopher Baxter January 5, 2023

⁷ Source: Morgan Stanley, The REIT Cheat Sheet, North America by Ronald Kamden, January 3, 2023

position, it should have been a horrendous year for gold. However, demand has remained strong as shifting geopolitics and currency market turmoil have led central banks, especially those in China and Russia, to build their reserves⁸.

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The indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment.

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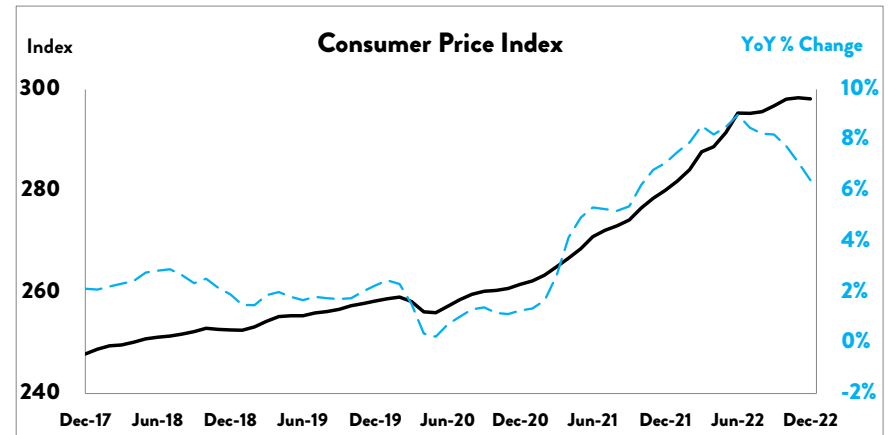
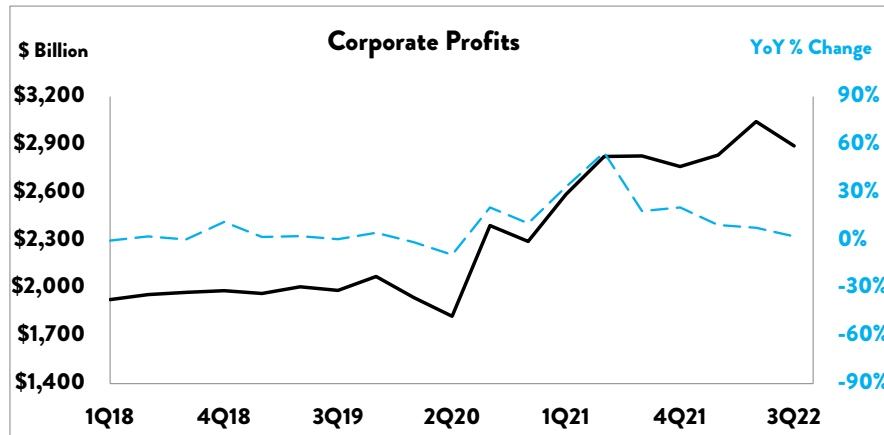
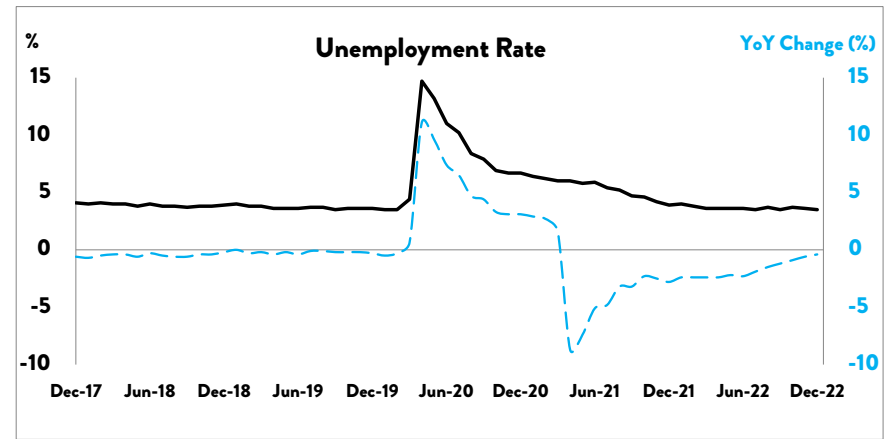
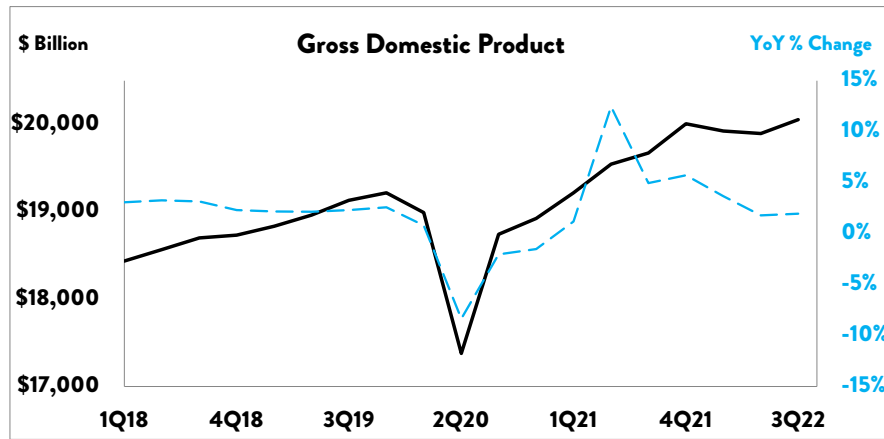
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⁸ Source: Morgan Stanley Global Investment Committee Weekly January 3, 2023

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4Q2022 Economic Data



Key: — Economic Series

- - - Year-Over-Year Change

Labor Market Statistics (Monthly)					
Category	Recent	5-Yr High	5-Yr Low	5-Yr Avg.	Date
Jobs Added/Lost Monthly	223,000	4,505,000	-20,493,000	103,567	Dec-22
Unemployment Rate	3.5%	14.7%	3.5%	4.9%	Dec-22
Median Unemployment Length (Weeks)	7.5	22.2	4.0	11.2	Dec-22
Average Hourly Earnings	\$32.82	\$32.82	\$26.73	\$29.45	Dec-22

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

Other Prices and Indexes (Monthly)					
Category	Recent	5-Yr High	5-Yr Low	% Off Peak	Date
Gas: Price per Gallon	\$3.17	\$4.84	\$1.80	-34.5%	Dec-22
Spot Oil	\$76.44	\$114.84	\$16.55	-33.4%	Dec-22
Case-Shiller Home Price Index	304.2	316.2	204.7	48.7%*	Oct-22
Medical Care CPI	552.3	557.4	480.8	14.9%*	Dec-22

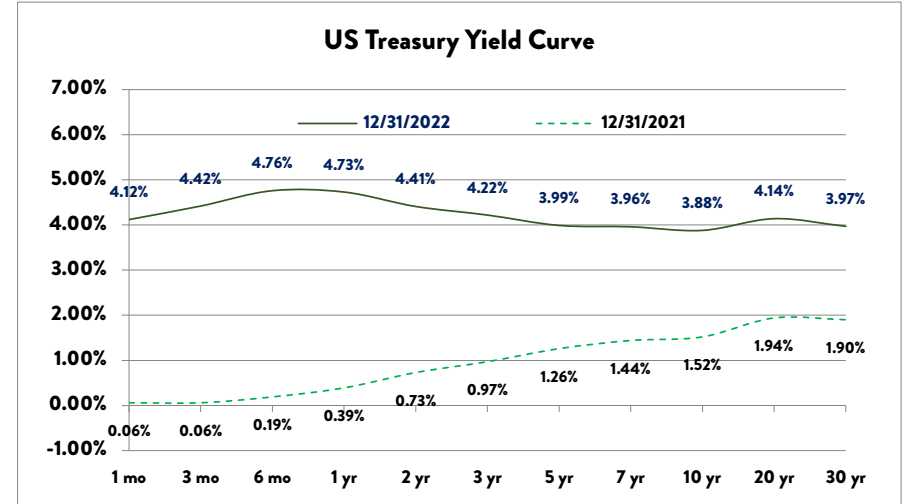
*% Off Low

Morningstar data as of 12/31/2022

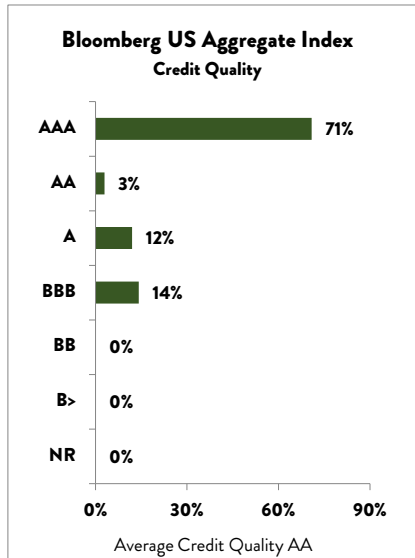
4Q2022 Bond Market Data

Index	QTR	YTD	1 yr.	3 yrs.	5 yrs.	10 yrs.
90-Day T-Bill	1.02%	2.05%	2.05%	0.82%	1.31%	0.79%
Bloomberg US Aggregate	1.87%	-13.01%	-13.01%	-2.71%	0.02%	1.06%
Bloomberg Short US Treasury	0.85%	0.98%	0.98%	0.66%	1.26%	0.80%
Bloomberg Int. US Treasury	1.02%	-7.77%	-7.77%	-1.39%	0.46%	0.69%
Bloomberg Long US Treasury	-0.59%	-29.26%	-29.26%	-7.40%	-2.20%	0.60%
Bloomberg US TIPS	2.04%	-11.85%	-11.85%	1.21%	2.11%	1.12%
Bloomberg US Credit	3.44%	-15.26%	-15.26%	-2.86%	0.42%	1.82%
Bloomberg US Mortgage-Backed	2.14%	-11.81%	-11.81%	-3.22%	-0.53%	0.74%
Bloomberg US Asset-Backed	0.81%	-4.30%	-4.30%	-0.11%	1.18%	1.23%
Bloomberg US 20-Yr Municipal	5.23%	-11.02%	-11.02%	-1.05%	1.37%	2.64%
Bloomberg US High Yield	4.17%	-11.19%	-11.19%	0.05%	2.31%	4.03%
Bloomberg Global	4.55%	-16.25%	-16.25%	-4.48%	-1.66%	-0.44%
Bloomberg International	6.81%	-18.70%	-18.70%	-5.94%	-3.07%	-1.64%
Bloomberg Emerging Market	6.59%	-15.26%	-15.26%	-3.89%	-0.42%	1.71%

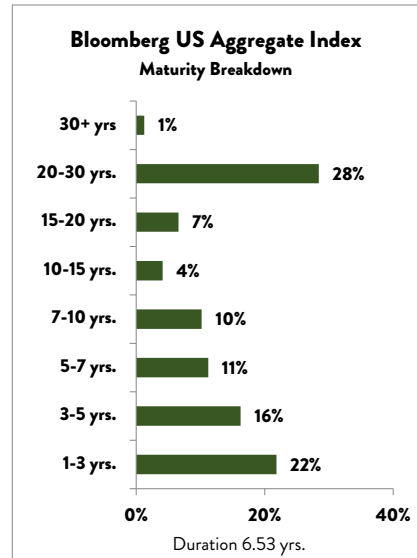
Source: Morningstar



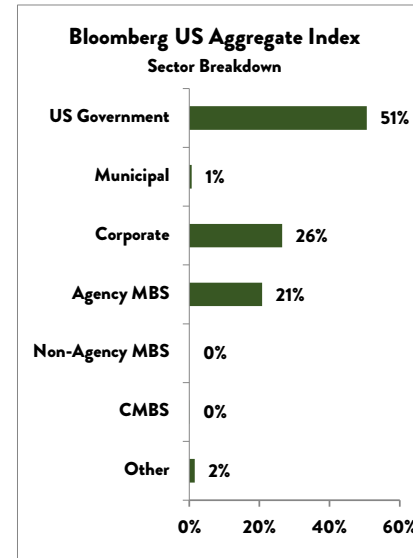
Source: Department of US Treasury



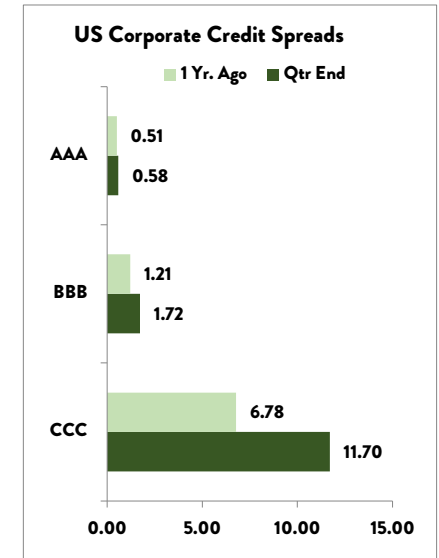
Source: Morningstar



Source: Morningstar



Source: Morningstar



Source: Federal Reserve / Bank of America

4Q2022 US Equity Market Data

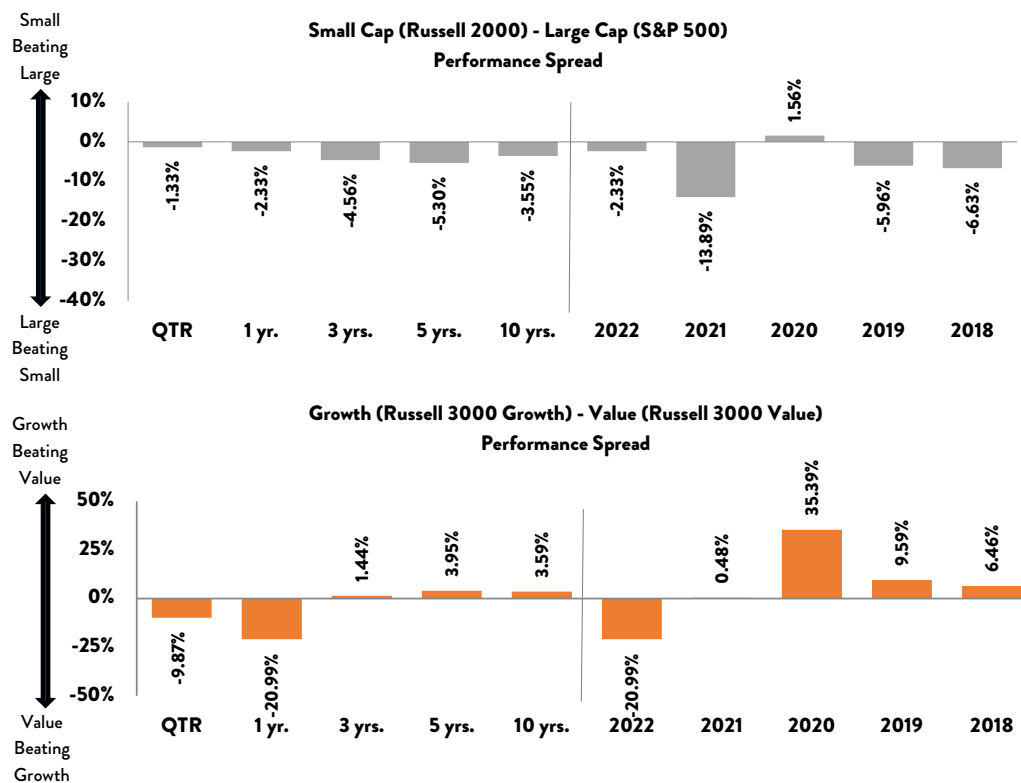
Sectors Weights/Returns (ranked by quarter performance)

	Wgt.	Sector	QTR	YTD	1 yr.
S&P 500 Index	5%	Energy	22.81%	65.72%	65.72%
	9%	Industrials	19.22%	-5.48%	-5.48%
	3%	Materials	15.05%	-12.27%	-12.27%
	12%	Financials	13.61%	-10.53%	-10.53%
	16%	Health Care	12.80%	-1.95%	-1.95%
	7%	Consumer Staples	12.72%	-0.62%	-0.62%
	3%	Utilities	8.64%	1.57%	1.57%
	26%	Information Technology	4.74%	-28.19%	-28.19%
	3%	Real Estate	3.82%	-26.13%	-26.13%
	7%	Communication Services	-1.38%	-39.89%	-39.89%
10%	Consumer Discretionary	-10.18%	-37.03%	-37.03%	
S&P Midcap 400 Index	7%	Materials	21.92%	-2.73%	-2.73%
	14%	Consumer Discretionary	14.24%	-21.03%	-21.03%
	20%	Industrials	12.77%	-11.50%	-11.50%
	4%	Utilities	11.62%	-0.15%	-0.15%
	4%	Consumer Staples	11.59%	-0.77%	-0.77%
	4%	Energy	10.45%	36.62%	36.62%
	15%	Financials	9.57%	-3.04%	-3.04%
	12%	Information Technology	9.36%	-20.47%	-20.47%
	10%	Health Care	5.22%	-20.05%	-20.05%
	2%	Communication Services	4.31%	-20.39%	-20.39%
8%	Real Estate	3.74%	-26.35%	-26.35%	
S&P Smallcap 600 Index	5%	Energy	20.45%	47.89%	47.89%
	17%	Industrials	14.66%	-9.40%	-9.40%
	3%	Utilities	12.64%	-1.84%	-1.84%
	6%	Materials	11.51%	-6.09%	-6.09%
	13%	Consumer Discretionary	10.91%	-27.82%	-27.82%
	5%	Consumer Staples	9.76%	-6.47%	-6.47%
	8%	Real Estate	9.01%	-29.50%	-29.50%
	13%	Information Technology	8.09%	-22.36%	-22.36%
	18%	Financials	7.21%	-14.02%	-14.02%
	11%	Health Care	0.48%	-26.32%	-26.32%
2%	Communication Services	-3.18%	-34.46%	-34.46%	

Source: Morningstar

Index Performance Data

Index	QTR	YTD	1 yr.	Annualized		
				3 yrs.	5 yrs.	10 yrs.
S&P 500	7.56%	-18.11%	-18.11%	7.66%	9.42%	12.56%
Russell 1000 Value	12.42%	-7.54%	-7.54%	5.96%	6.67%	10.29%
Russell 1000 Growth	2.20%	-29.14%	-29.14%	7.79%	10.96%	14.10%
Russell Mid Cap	9.18%	-17.32%	-17.32%	5.88%	7.10%	10.96%
Russell Mid Cap Value	10.45%	-12.03%	-12.03%	5.82%	5.72%	10.11%
Russell Mid Cap Growth	6.90%	-26.72%	-26.72%	3.85%	7.64%	11.41%
Russell 2000	6.23%	-20.44%	-20.44%	3.10%	4.13%	9.01%
Russell 2000 Value	8.42%	-14.48%	-14.48%	4.70%	4.13%	8.48%
Russell 2000 Growth	4.13%	-26.36%	-26.36%	0.65%	3.51%	9.20%
Russell 3000	7.18%	-19.21%	-19.21%	7.07%	8.79%	12.13%
DJ US Select REIT	4.76%	-25.96%	-25.96%	-1.37%	2.50%	5.74%



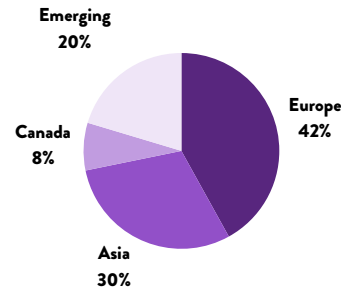
4Q2022 International Market Data

Index Performance Data (net)

Index (US\$)	QTR	YTD	1 yr.	3 yrs.	5 yrs.	10 yrs.
MSCI ACWI ex-US	14.28%	-16.00%	-16.00%	0.07%	0.88%	3.80%
MSCI EAFE	17.34%	-14.45%	-14.45%	0.87%	1.54%	4.67%
Europe	19.35%	-15.06%	-15.06%	1.35%	1.87%	4.58%
United Kingdom	16.98%	-4.84%	-4.84%	0.32%	0.96%	3.07%
Germany	24.57%	-22.34%	-22.34%	-3.01%	-3.02%	2.66%
France	22.19%	-13.33%	-13.33%	2.53%	3.41%	6.14%
Pacific	14.13%	-13.04%	-13.04%	-0.03%	0.95%	4.89%
Japan	13.23%	-16.65%	-16.65%	-0.99%	0.23%	5.55%
Hong Kong	18.21%	-4.71%	-4.71%	-1.05%	-0.29%	4.77%
Australia	15.68%	-5.25%	-5.25%	4.07%	4.05%	3.97%
Canada	7.42%	-12.87%	-12.87%	4.95%	4.06%	3.68%
MSCI EM	9.70%	-20.09%	-20.09%	-2.69%	-1.40%	1.44%
MSCI EM Latin America	5.73%	8.92%	8.92%	-4.79%	-1.08%	-2.15%
MSCI EM Asia	10.83%	-21.11%	-21.11%	-1.31%	-0.62%	3.55%
MSCI EM Eur/Mid East	1.25%	-35.34%	-35.34%	-9.53%	-4.07%	-4.02%
MSCI ACWI Value ex-US	15.70%	-8.59%	-8.59%	0.06%	-0.05%	2.72%
MSCI ACWI Growth ex-US	12.89%	-23.05%	-23.05%	-0.40%	1.49%	4.68%
MSCI ACWI Sm Cap ex-US	13.31%	-19.97%	-19.97%	1.07%	0.67%	5.24%

Regional Exposure

MSCI ACWI ex-USA

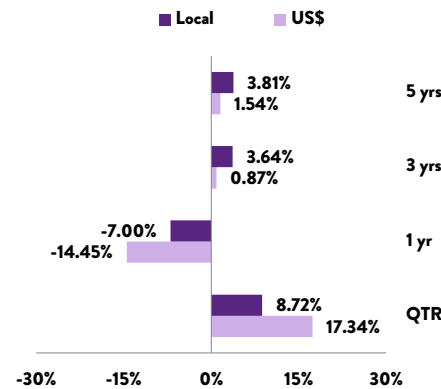


Top 10 Countries (MSCI AC World ex-USA)

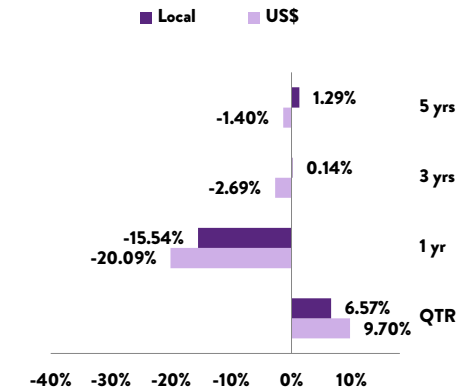
Japan	14%
UK	10%
China	9%
Canada	8%
France	8%
Switzerland	7%
Germany	5%
Australia	5%
India	4%
Taiwan	4%

Source: Morningstar

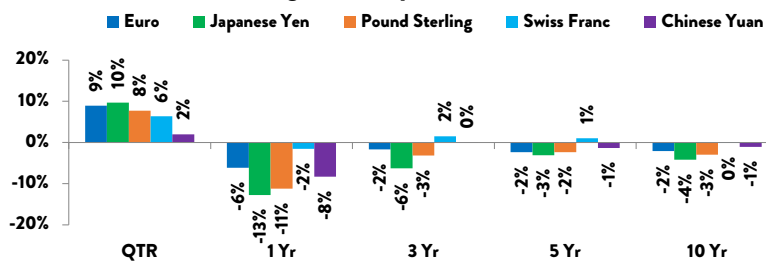
MSCI EAFE Index Return



MSCI Emerging Index Return



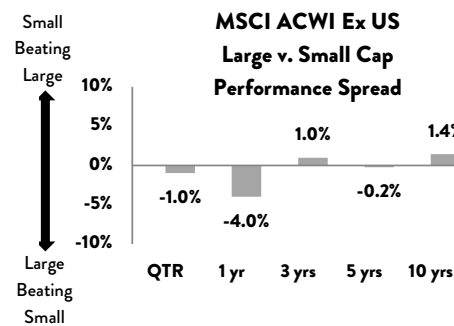
Foreign Currency v. US\$ Returns



Exchange Rates	QTR	3Q22	2Q22	1Q22	4Q21	3Q21
Japanese Yen	131.81	144.71	135.69	121.44	115.17	111.50
Euro	0.93	1.02	0.96	0.90	0.88	0.86
British Pound	0.83	0.90	0.82	0.76	0.74	0.74
Swiss Franc	0.92	0.98	0.96	0.92	0.91	0.93
Chinese Yuan	6.90	7.11	6.70	6.34	6.37	6.44

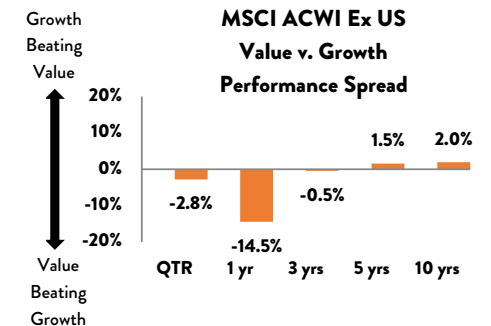
Source: Federal Reserve Bank of St. Louis

MSCI ACWI Ex US Large v. Small Cap Performance Spread



Performance Source: Morningstar

MSCI ACWI Ex US Value v. Growth Performance Spread



Historical Market Returns

Ranked by Performance

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	4Q22
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%	Large Cap 31.49%	Small Cap 19.96%	Large Cap 28.71%	Commod. 16.09%	Intl 14.28%
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%	Mid Cap 30.54%	Large Cap 18.40%	Commod. 27.11%	Core Real Estate 6.59%	Emerging Markets 9.70%
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 25.52%	Emerging Markets 18.31%	Mid Cap 22.58%	Cash 2.05%	Mid Cap 9.18%
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%	Intl 21.51%	Mid Cap 17.10%	Core Real Estate 21.06%	High Yield -11.19%	Large Cap 7.56%
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%	Global Balanced 18.86%	Global Balanced 13.93%	Small Cap 14.82%	TIPS -11.85%	Global Balanced 7.50%
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%	Emerging Markets 18.42%	TIPS 10.99%	Global Balanced 10.94%	US Bonds -13.01%	Small Cap 6.23%
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%	High Yield 14.32%	Intl 10.65%	Intl 7.82%	Intl -16.00%	Global Bonds 4.55%
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%	US Bonds 8.72%	Global Bonds 9.20%	TIPS 5.96%	Global Bonds -16.25%	High Yield 4.17%
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%	TIPS 8.43%	US Bonds 7.51%	High Yield 5.28%	Global Balanced -16.40%	Commod. 2.22%
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%	Commod. 7.69%	High Yield 7.11%	Cash 0.05%	Mid Cap -17.32%	TIPS 2.04%
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%	Global Bonds 6.84%	Cash 0.37%	US Bonds -1.54%	Large Cap -18.11%	US Bonds 1.87%
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 4.41%	Core Real Estate 0.35%	Emerging Markets -2.54%	Emerging Markets -20.09%	Cash 1.02%
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 2.30%	Commod. -3.12%	Global Bonds -4.71%	Small Cap -20.44%	Core Real Estate -5.13%

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

Source: Morningstar; Core Real Estate Source: NCREIF

Section 2

LANE COUNTY

457 Deferred Compensation Plans

PLAN ASSET ALLOCATION

Fourth Quarter 2022

Fixed Income	Ticker	Assets	%
MissionSquare PLUS Fund R10	-	\$25,932,753	20.1%
Western Asset Core Plus Bond I	WACPX	\$2,994,292	2.3%
Vanguard Total Bond Market Index Adm	VBTLX	\$3,449,798	2.7%
PIMCO Real Return Instl	PRRIX	\$1,445,295	1.1%
American Beacon SiM High Yield Opps R5	SHOIX	\$1,295,415	1.0%
Total		\$35,117,554	27.2%

Large Cap	Ticker	Assets	%
American Beacon Large Cap Value R6	AALRX	\$3,465,461	2.7%
Parnassus Core Equity Instl	PRILX	\$2,585,814	2.0%
Vanguard Institutional Index Instl	VINIX	\$12,597,551	9.8%
T. Rowe Price Large Cap Growth I	TRLGX	\$8,991,424	7.0%
Total		\$27,640,250	21.4%

Mid Cap	Ticker	Assets	%
Allspring Special Mid Cap Value Fund	WFPRX	\$1,950,501	1.5%
Vanguard Mid Cap Index Adm	VIMAX	\$3,154,612	2.4%
JPMorgan Mid Cap Growth R6	JMGMX	\$654,508	0.5%
Total		\$5,759,621	4.5%

Small Cap	Ticker	Assets	%
Westwood SmallCap Instl	WHGSX	\$959,865	0.7%
Vanguard Small Cap Index Adm	VSMAX	\$3,237,725	2.5%
Artisan Small Cap Instl	APHSX	\$1,167,332	0.9%
Total		\$5,364,922	4.2%

International	Ticker	Assets	%
Dodge & Cox International Stock X	DOAFX	\$1,910,656	1.5%
Vanguard Total Intl Stock Index Adm	VTIAX	\$2,901,694	2.3%
American Funds EuroPacific Growth R6	REGRX	\$2,428,303	1.9%
Invesco Global Opports R6	OGIIX	\$1,230,362	1.0%
Total		\$8,471,015	6.6%

Asset Allocation	Ticker	Assets	%
Vanguard Target Retirement Income	VTINX	\$3,175,826	2.5%
Vanguard Target Retirement 2020	VTWNX	\$6,076,486	4.7%
Vanguard Target Retirement 2025	VTTVX	\$4,762,052	3.7%
Vanguard Target Retirement 2030	VTHRXX	\$8,158,069	6.3%
Vanguard Target Retirement 2035	VTHHX	\$1,734,357	1.3%
Vanguard Target Retirement 2040	VFORX	\$10,318,782	8.0%
Vanguard Target Retirement 2045	VTIVX	\$3,219,305	2.5%
Vanguard Target Retirement 2050	VFIXX	\$5,062,672	3.9%
Vanguard Target Retirement 2055	VFFVX	\$1,185,813	0.9%
Vanguard Target Retirement 2060	VTTSX	\$461,762	0.4%
Vanguard Target Retirement 2065	VLXVX	\$108,743	0.1%
Vanguard Target Retirement 2070	VSVNX	\$0	0.0%
Total		\$44,263,868	34.3%

Miscellaneous	Ticker	Assets	%
Self-Directed Brokerage	-	\$1,124,582	0.9%
Participant Loans	-	\$1,180,301	0.9%
Total		\$2,304,883	1.8%

TOTAL PLAN ASSETS

\$128,922,113

Administrative Account Balance

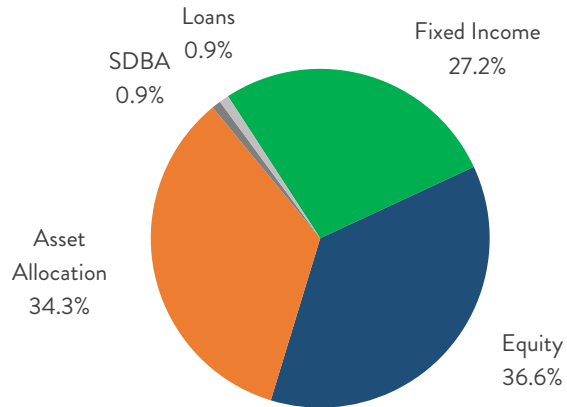
\$75,088

LANE COUNTY

457 Deferred Compensation Plans

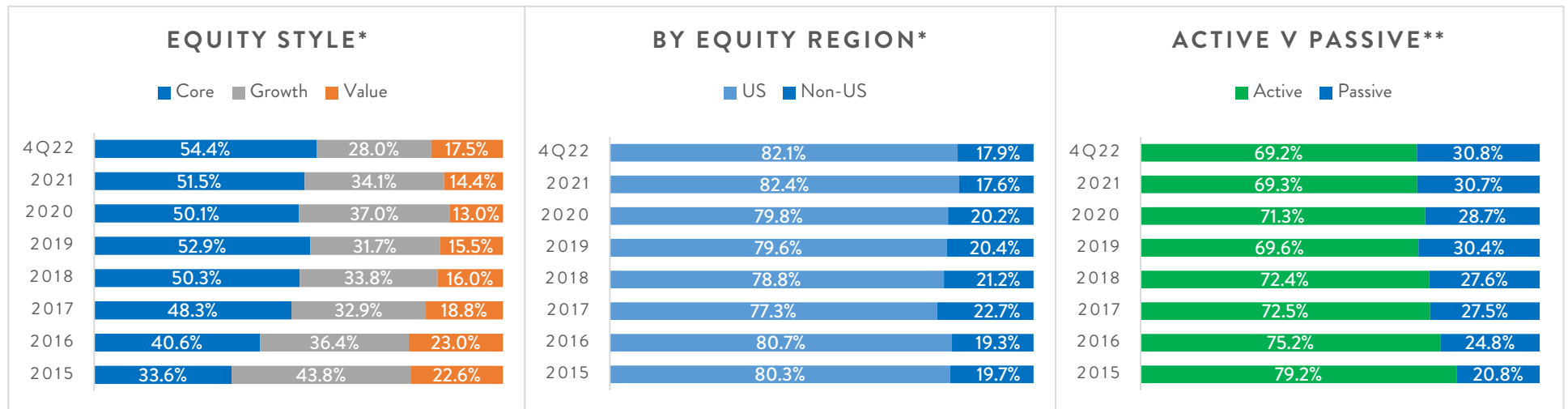
PLAN ASSET ALLOCATION

Fourth Quarter 2022



HISTORICAL PLAN ALLOCATION

Asset Class	4Q22	2021	2020	2019	2018	2017	2016	2015
Fixed Income	27.2%	25.0%	27.9%	29.5%	31.1%	28.9%	32.3%	32.3%
Large Cap	21.4%	24.9%	22.7%	22.8%	22.4%	22.8%	21.6%	22.7%
Mid Cap	4.5%	4.7%	4.1%	4.4%	4.4%	5.1%	5.6%	5.2%
Small Cap	4.2%	4.5%	5.2%	5.1%	4.9%	5.2%	4.9%	4.3%
International	6.6%	7.3%	8.1%	8.3%	8.5%	9.8%	7.6%	7.9%
Asset Allocation	34.3%	31.9%	30.2%	28.2%	26.8%	26.3%	26.2%	25.4%
SDDBA	0.9%	0.9%	0.8%	0.6%	0.7%	0.7%	0.5%	0.8%
Loans	0.9%	0.8%	1.0%	1.1%	1.3%	1.2%	1.3%	1.3%



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

**Excludes Asset Allocation, Brokerage, and Loan assets

LANE COUNTY

457 Deferred Compensation Plans

PLAN ASSET ALLOCATION

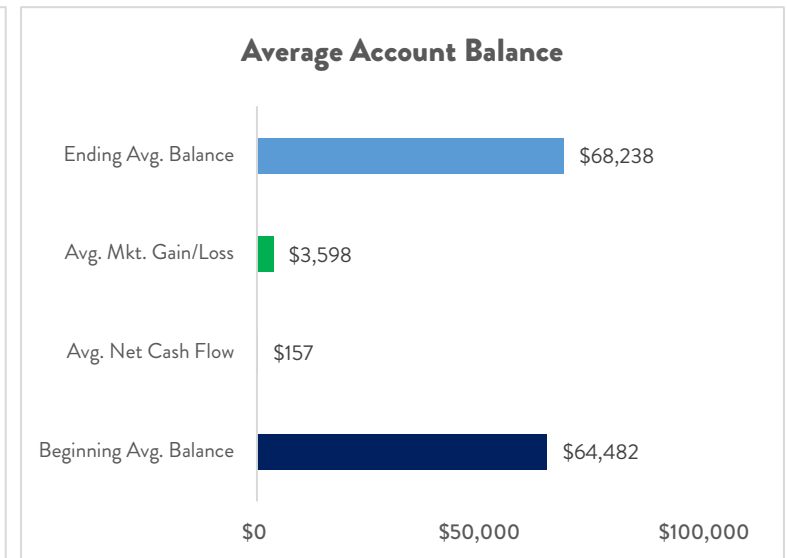
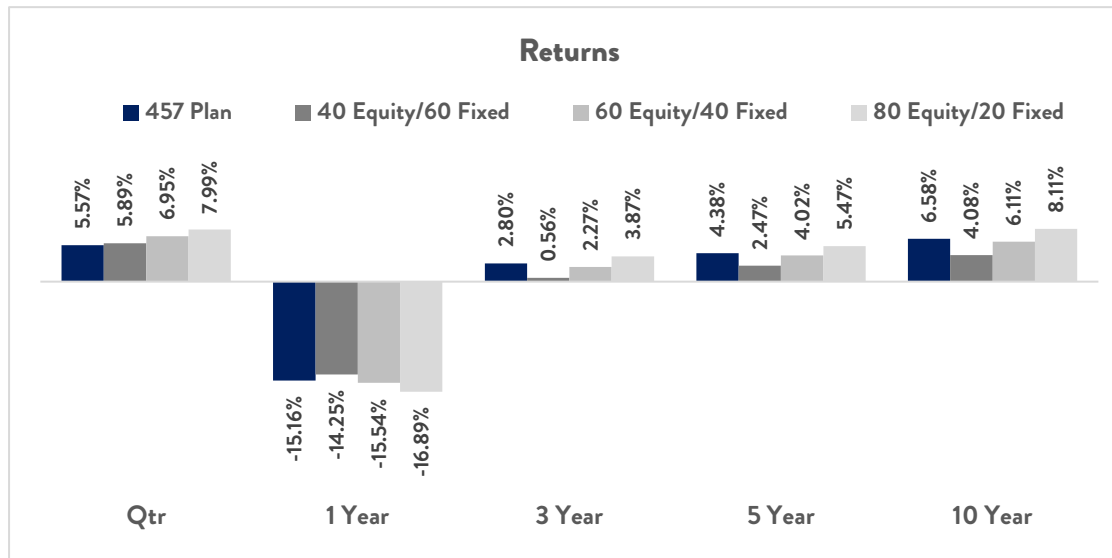
Fourth Quarter 2022

PLAN LEVEL CASH FLOWS

	Beginning Value	Cash Flow* (+)	Cash Flow (-)	Transfer	Market Gain/Loss	Ending Value
Fixed Income	\$35,369,825	\$593,617	(\$1,105,349)	(\$129,533)	\$388,993	\$35,117,554
Large Cap	\$26,332,653	\$255,950	(\$491,776)	(\$5,377)	\$1,548,800	\$27,640,250
Mid Cap	\$5,286,498	\$73,967	(\$132,759)	(\$17,940)	\$549,854	\$5,759,621
Small Cap	\$4,962,730	\$74,013	(\$115,066)	\$14,161	\$429,085	\$5,364,922
International	\$7,488,580	\$127,983	(\$123,026)	(\$66,038)	\$1,043,517	\$8,471,015
Asset Allocation	\$40,062,581	\$1,408,951	(\$271,832)	\$203,112	\$2,861,056	\$44,263,868
SDBA	\$1,207,910	\$0	\$0	\$1,688	(\$85,016)	\$1,124,582
Total	\$120,710,778	\$2,534,481	(\$2,239,809)	\$74	\$6,736,288	\$127,741,812

HISTORICAL PLAN CASH FLOWS

	Beginning Value	Net Cash Flow	Market Gain/Loss	Ending Value
4Q22	\$120,710,778	\$294,746	\$6,736,288	\$127,741,812
YTD	\$148,997,927	\$1,441,440	(\$22,697,555)	\$127,741,812
2021	\$130,848,666	\$2,416,928	\$15,732,332	\$148,997,927
2020	\$115,885,968	(\$1,480,506)	\$16,443,204	\$130,848,666
2019	\$98,065,476	(\$658,084)	\$18,478,577	\$115,885,968
2018	\$102,941,529	(\$670,032)	(\$4,206,021)	\$98,065,476
2017	\$93,044,537	(\$4,427,384)	\$14,324,375	\$102,941,529



Equity Indices: Russell 3000, MSCI ACWI ex USA; Fixed Indices: US Treasury 3 Mo T-Bill, Bloomberg Global

Aggregate Bond (rebalanced quarterly)

Section 3

LANE COUNTY

401(a) Defined Contribution Plan

PLAN ASSET ALLOCATION

Fourth Quarter 2022

Fixed Income	Ticker	Assets	%
MissionSquare PLUS Fund R10	-	\$316,596	4.0%
Western Asset Core Plus Bond I	WACPX	\$71,757	0.9%
Vanguard Total Bond Market Index Adm	VBTLX	\$148,221	1.9%
PIMCO Real Return Instl	PRRIX	\$49,816	0.6%
American Beacon SiM High Yield Opps R5	SHOIX	\$40,002	0.5%
Total		\$626,392	7.8%

Large Cap	Ticker	Assets	%
American Beacon Large Cap Value R6	AALRX	\$87,477	1.1%
Parnassus Core Equity Instl	PRILX	\$44,695	0.6%
Vanguard Institutional Index Instl	VINIX	\$479,056	6.0%
T. Rowe Price Large Cap Growth I	TRLGX	\$47,281	0.6%
Total		\$658,509	8.2%

Mid Cap	Ticker	Assets	%
Allspring Special Mid Cap Value Fund	WFPRX	\$87,281	1.1%
Vanguard Mid Cap Index Adm	VIMAX	\$50,689	0.6%
JPMorgan Mid Cap Growth R6	JMGMX	\$7,960	0.1%
Total		\$145,930	1.8%

Small Cap	Ticker	Assets	%
Westwood SmallCap Instl	WHGSX	\$16,529	0.2%
Vanguard Small Cap Index Adm	VSMAX	\$177,570	2.2%
Artisan Small Cap Instl	APHSX	\$34,580	0.4%
Total		\$228,680	2.9%

International	Ticker	Assets	%
Dodge & Cox International Stock X	DOAFX	\$80,962	1.0%
Vanguard Total Intl Stock Index Adm	VTIAX	\$183,498	2.3%
American Funds EuroPacific Growth R6	REGRX	\$142,922	1.8%
Invesco Global Opports R6	OIGIX	\$17,773	0.2%
Total		\$425,155	5.3%

Asset Allocation	Ticker	Assets	%
Vanguard Target Retirement Income	VTINX	\$98,528	1.2%
Vanguard Target Retirement 2020	VTWNX	\$428,187	5.4%
Vanguard Target Retirement 2025	VTTVX	\$733,318	9.2%
Vanguard Target Retirement 2030	VTHRXX	\$798,298	10.0%
Vanguard Target Retirement 2035	VTTHX	\$912,942	11.4%
Vanguard Target Retirement 2040	VFORX	\$1,209,261	15.1%
Vanguard Target Retirement 2045	VTIVX	\$772,792	9.7%
Vanguard Target Retirement 2050	VFIFX	\$410,258	5.1%
Vanguard Target Retirement 2055	VFFVX	\$322,682	4.0%
Vanguard Target Retirement 2060	VTTSX	\$141,450	1.8%
Vanguard Target Retirement 2065	VLXVX	\$80,795	1.0%
Vanguard Target Retirement 2070	VSVNX	\$482	0.0%
Total		\$5,908,993	73.9%

Miscellaneous	Ticker	Assets	%
Self-Directed Brokerage	-	\$22	0.0%
Total		\$22	0.0%

TOTAL PLAN ASSETS

\$7,993,680

Administrative Account Balance

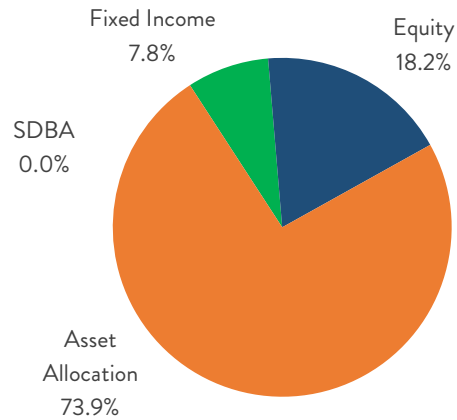
\$12,768

LANE COUNTY

401(a) Defined Contribution Plan

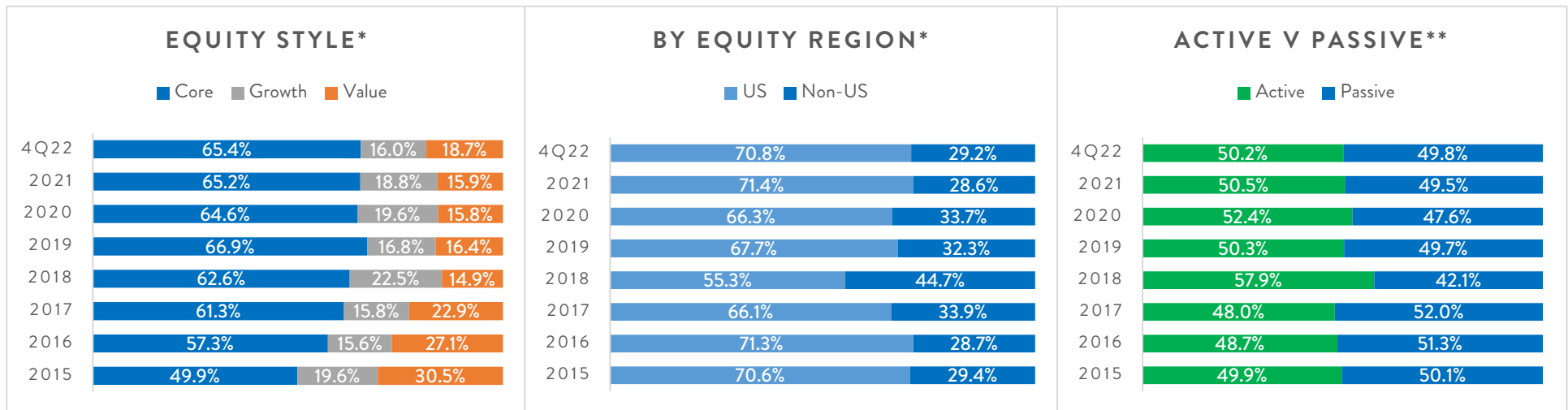
PLAN ASSET ALLOCATION

Fourth Quarter 2022



HISTORICAL PLAN ALLOCATION

Asset Class	4Q22	2021	2020	2019	2018	2017	2016	2015
Fixed Income	7.8%	7.4%	8.8%	12.0%	10.0%	7.1%	5.9%	4.6%
Large Cap	8.2%	9.3%	7.8%	8.3%	7.4%	8.4%	6.7%	5.6%
Mid Cap	1.8%	1.8%	1.7%	1.7%	2.0%	2.0%	2.0%	1.4%
Small Cap	2.9%	3.4%	3.1%	3.3%	2.9%	3.5%	2.7%	1.9%
International	5.3%	5.8%	6.4%	6.3%	10.0%	7.1%	4.6%	3.7%
Asset Allocation	73.9%	72.2%	72.1%	68.5%	67.6%	71.9%	78.1%	82.8%



*Excludes Fixed Income, SDBA and Asset Allocation assets

**Excludes Asset Allocation assets

LANE COUNTY

401(a) Defined Contribution Plan

PLAN ASSET ALLOCATION

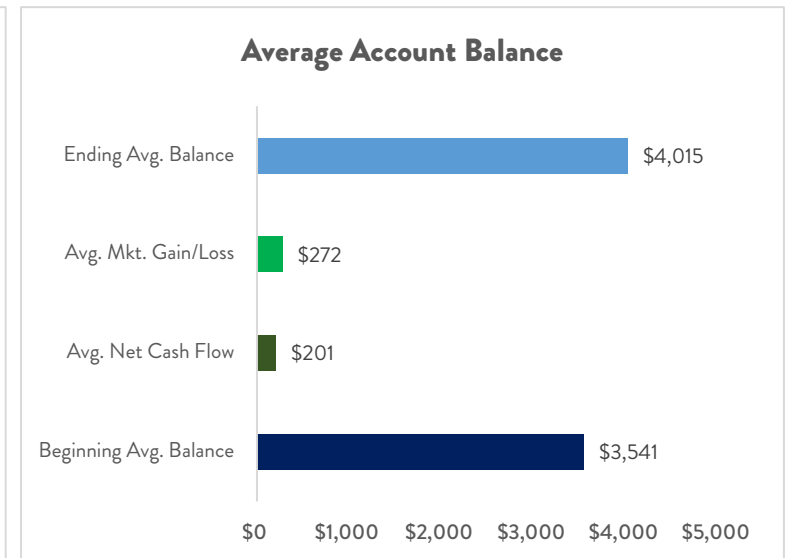
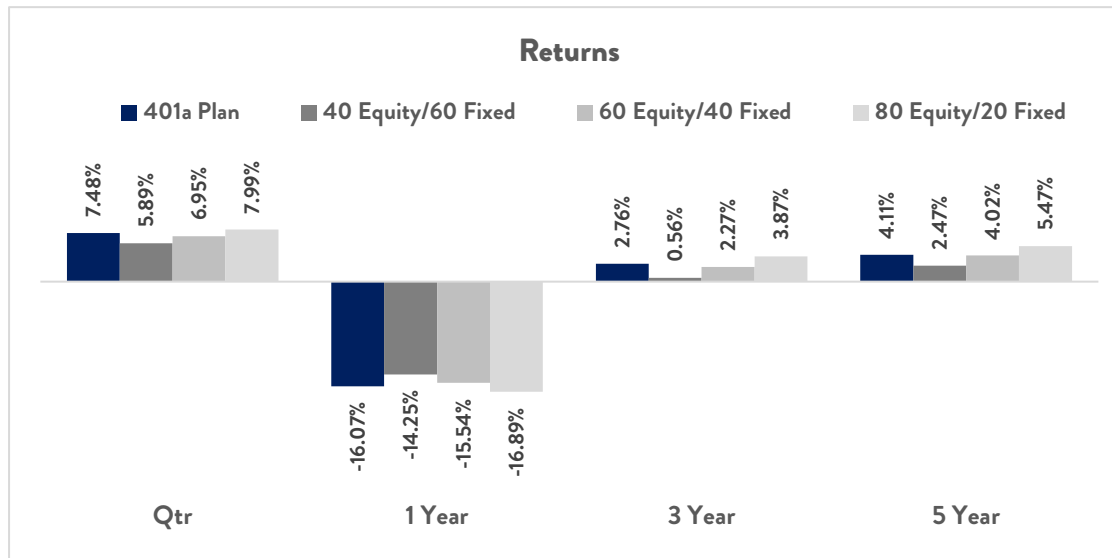
Fourth Quarter 2022

PLAN LEVEL CASH FLOWS

	Beginning Value	Cash Flow (+)	Cash Flow (-)	Transfer	Market Gain/Loss	Ending Value
Fixed Income	\$623,255	\$15,517	(\$24,949)	\$3,248	\$9,321	\$626,392
Large Cap	\$601,493	\$20,547	(\$7,329)	(\$5,042)	\$48,839	\$658,509
Mid Cap	\$127,627	\$4,208	(\$1,195)	\$19	\$15,270	\$145,930
Small Cap	\$207,630	\$6,781	(\$2,784)	(\$3)	\$17,056	\$228,680
International	\$361,817	\$13,008	(\$4,536)	\$2,367	\$52,500	\$425,155
Asset Allocation	\$5,129,190	\$393,678	(\$12,302)	(\$590)	\$399,017	\$5,908,993
SDBA	\$22	\$0	\$0	\$0	\$0	\$22
Total	\$7,051,033	\$453,739	(\$53,095)	\$0	\$542,003	\$7,993,680

HISTORICAL PLAN CASH FLOWS

	Beginning Value	Net Cash Flow	Market Gain/Loss	Ending Value
4Q22	\$7,051,033	\$400,644	\$542,003	\$7,993,680
YTD	\$7,802,346	\$1,485,253	(\$1,293,918)	\$7,993,680
2021	\$6,002,996	\$982,404	\$816,945	\$7,802,346
2020	\$4,517,343	\$703,216	\$782,438	\$6,002,996
2019	\$3,040,232	\$762,590	\$714,521	\$4,517,343
2018	\$2,291,281	\$980,867	(\$231,916)	\$3,040,232
2017	\$1,243,007	\$773,259	\$275,015	\$2,291,281



Equity Indices: Russell 3000, MSCI ACWI ex USA; Fixed Indices: US Treasury 3 Mo T-Bill, Bloomberg Global

Aggregate Bond (rebalanced quarterly)

Section 4

Key: Ⓟ Pass / ● Fail

Investment Policy Status

	Performance Factors	Qualitative Factors	On-Watch Information	Notes
MissionSquare PLUS Fund R10	Ⓟ	Ⓟ	-	
Western Asset Core Plus Bond I	●	Ⓟ	2Q22 (Performance)	Trailing Benchmark and Peer Group for 5 year period.
Vanguard Total Bond Market Index Adm	Ⓟ	Ⓟ	-	
PIMCO Real Return Instl	Ⓟ	Ⓟ	-	
American Beacon SiM High Yield Opps R5	Ⓟ	Ⓟ	-	
American Beacon Large Cap Value R6	Ⓟ	Ⓟ	-	
Parnassus Core Equity Instl	Ⓟ	Ⓟ	-	
Vanguard Institutional Index Instl	Ⓟ	Ⓟ	-	
T. Rowe Price Large Cap Growth I	Ⓟ	Ⓟ	-	
Allspring Special Mid Cap Value Fund	Ⓟ	Ⓟ	-	
Vanguard Mid Cap Index Adm	Ⓟ	Ⓟ	-	
JPMorgan Mid Cap Growth R6	Ⓟ	Ⓟ	-	
Westwood SmallCap Instl	Ⓟ	Ⓟ	-	
Vanguard Small Cap Index Adm	Ⓟ	Ⓟ	-	
Artisan Small Cap Instl	Ⓟ	Ⓟ	-	
Dodge & Cox International Stock X	Ⓟ	Ⓟ	-	
Vanguard Total Intl Stock Index Adm	Ⓟ	Ⓟ	-	
American Funds EuroPacific Growth R6	Ⓟ	Ⓟ	1Q22 (Performance)	On watch for trailing Benchmark and Peer Group for 5 year period.
Invesco Global Opports R6	●	Ⓟ	1Q22 (Performance)	Trailing Benchmark and Peer Group for 5 year period.
Vanguard Target Retirement Income	Ⓟ	Ⓟ	-	
Vanguard Target Retirement 2020	Ⓟ	Ⓟ	-	
Vanguard Target Retirement 2025	Ⓟ	Ⓟ	-	
Vanguard Target Retirement 2030	Ⓟ	Ⓟ	-	
Vanguard Target Retirement 2035	Ⓟ	Ⓟ	-	

Key: Ⓟ Pass / ● Fail

	Performance Factors	Qualitative Factors
Vanguard Target Retirement 2040	Ⓟ	Ⓟ
Vanguard Target Retirement 2045	Ⓟ	Ⓟ
Vanguard Target Retirement 2050	Ⓟ	Ⓟ
Vanguard Target Retirement 2055	Ⓟ	Ⓟ
Vanguard Target Retirement 2060	Ⓟ	Ⓟ
Vanguard Target Retirement 2065	Ⓟ	Ⓟ
Vanguard Target Retirement 2070	Ⓟ	Ⓟ

Investment Policy Status

On-Watch Information	Notes
-	
-	
-	
-	
-	
-	
-	

LANE COUNTY

457 Deferred Compensation and 401(a) Defined Contribution Plans

PERFORMANCE REVIEW

Fourth Quarter 2022

	QTR	YTD	1Yr	<i>Annualized</i>			2021	2020	2019	2018	2017	2016
				3Yr	5Yr	10Yr						
MissionSquare PLUS Fund R10	0.55	1.97	1.97	2.03	2.16	2.06	1.89	2.22	2.45	2.27	2.12	1.98
US 90 Day T-Bill	0.99	2.01	2.01	0.80	1.28	0.78	0.04	0.36	2.06	1.94	0.93	0.32
+/- Index	(0.44)	(0.04)	(0.04)	1.23	0.88	1.28	1.85	1.86	0.39	0.33	1.19	1.66
US Stable Value	24	17	17	12	10	13	10	12	16	13	8	7
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2021	2020	2019	2018	2017	2016
Western Asset Core Plus Bond I	3.24	-18.77	-18.77	-4.47	-0.73	1.55	-1.90	9.39	12.28	-1.49	6.96	4.79
Bloomberg US Aggregate Bond Index	1.87	-13.01	-13.01	-2.71	0.02	1.06	-1.54	7.51	8.72	0.01	3.54	2.65
+/- Index	1.37	(5.76)	(5.76)	(1.76)	(0.75)	0.49	(0.36)	1.88	3.57	(1.50)	3.41	2.14
US Fund Intermediate Core-Plus Bond	4	99	99	97	88	26	89	24	2	76	2	23
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2021	2020	2019	2018	2017	2016
Vanguard Total Bond Market Index Adm	1.67	-13.16	-13.16	-2.75	-0.01	1.00	-1.67	7.72	8.71	-0.03	3.57	2.60
Bloomberg US Aggregate Bond Index	1.87	-13.01	-13.01	-2.71	0.02	1.06	-1.54	7.51	8.72	0.01	3.54	2.65
+/- Index	(0.20)	(0.15)	(0.15)	(0.04)	(0.03)	(0.06)	(0.13)	0.21	0.00	(0.04)	0.02	(0.05)
US Fund Intermediate Core Bond	45	35	35	49	38	44	57	54	35	29	39	49
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2021	2020	2019	2018	2017	2016
PIMCO Real Return Instl	2.69	-11.86	-11.86	1.44	2.12	1.04	5.67	12.09	8.52	-1.97	3.92	5.04
Bloomberg US TIPS Index	2.04	-11.85	-11.85	1.21	2.11	1.12	5.96	10.99	8.43	-1.26	3.01	4.68
+/- Index	0.65	(0.01)	(0.01)	0.23	0.01	(0.08)	(0.29)	1.09	0.09	(0.71)	0.91	0.36
US Fund Inflation-Protected Bond	9	55	55	44	37	36	35	15	16	67	9	19
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2021	2020	2019	2018	2017	2016
American Beacon SiM High Yield Opps R5	4.26	-6.97	-6.97	2.54	3.67	4.92	8.81	6.52	12.35	-1.14	7.35	16.30
Bloomberg US Corp High Yield Index	4.17	-11.19	-11.19	0.05	2.31	4.03	5.28	7.11	14.32	-2.08	7.50	17.13
+/- Index	0.09	4.22	4.22	2.49	1.36	0.89	3.53	(0.59)	(1.96)	0.95	(0.16)	(0.83)
US Fund High Yield Bond	33	12	12	5	3	2	4	25	71	13	31	15

LANE COUNTY

457 Deferred Compensation and 401(a) Defined Contribution Plans

PERFORMANCE REVIEW

Fourth Quarter 2022

	QTR	YTD	1Yr	Annualized			2021	2020	2019	2018	2017	2016
				3Yr	5Yr	10Yr						
American Beacon Large Cap Value R6	14.47	-5.24	-5.24	7.83	7.43	10.54	27.98	3.38	29.67	-11.96	17.07	15.98
Russell 1000 Value Index	12.42	-7.54	-7.54	5.96	6.67	10.29	25.16	2.80	26.54	-8.27	13.66	17.34
+/- Index	2.05	2.30	2.30	1.87	0.76	0.25	2.82	0.58	3.13	(3.69)	3.41	(1.36)
US Fund Large Value	16	47	47	33	41	36	28	42	9	83	39	30
Parnassus Core Equity Instl	9.64	-18.45	-18.45	8.19	10.66	12.64	27.82	21.47	30.96	0.05	16.81	10.60
S&P 500 Index	7.56	-18.11	-18.11	7.66	9.42	12.56	28.71	18.40	31.49	-4.38	21.83	11.96
+/- Index	2.08	(0.34)	(0.34)	0.53	1.24	0.08	(0.89)	3.07	(0.53)	4.44	(5.02)	(1.36)
US Fund Large Blend	30	56	56	18	3	10	35	12	35	1	88	51
Vanguard Institutional Index Instl	7.55	-18.14	-18.14	7.64	9.40	12.53	28.67	18.39	31.46	-4.42	21.79	11.93
S&P 500 Index	7.56	-18.11	-18.11	7.66	9.42	12.56	28.71	18.40	31.49	-4.38	21.83	11.96
+/- Index	(0.01)	(0.03)	(0.03)	(0.02)	(0.02)	(0.03)	(0.04)	(0.01)	(0.02)	(0.04)	(0.04)	(0.03)
US Fund Large Blend	56	49	49	30	20	12	21	33	23	23	33	28
T. Rowe Price Large Cap Growth I	-0.18	-35.18	-35.18	3.67	8.35	13.85	23.18	39.56	28.49	4.32	37.82	2.85
Russell 1000 Growth Index	2.20	-29.14	-29.14	7.79	10.96	14.10	27.60	38.49	36.39	-1.51	30.21	7.08
+/- Index	(2.38)	(6.04)	(6.04)	(4.12)	(2.61)	(0.25)	(4.42)	1.07	(7.90)	5.83	7.61	(4.22)
US Fund Large Growth	81	77	77	65	50	10	39	31	82	7	4	52
Allspring Special Mid Cap Value Fund	14.08	-4.50	-4.50	8.33	8.45	11.93	28.80	3.36	35.68	-13.02	11.27	21.68
Russell Mid Cap Value Index	10.45	-12.03	-12.03	5.82	5.72	10.11	28.34	4.96	27.06	-12.29	13.34	20.00
+/- Index	3.63	7.53	7.53	2.51	2.73	1.82	0.46	(1.60)	8.62	(0.74)	(2.07)	1.69
US Fund Mid-Cap Value	8	18	18	21	5	3	47	43	2	42	80	20

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	QTR	YTD	1Yr	Annualized			2021	2020	2019	2018	2017	2016
				3Yr	5Yr	10Yr						
Vanguard Mid Cap Index Adm	9.02	-18.71	-18.71	6.17	7.32	11.10	24.51	18.24	31.03	-9.23	19.25	11.22
Vanguard US Mid Cap Index	9.03	-18.68	-18.68	6.19	7.34	11.13	24.52	18.24	31.09	-9.22	19.30	11.25
+/- Index	(0.01)	(0.03)	(0.03)	(0.02)	(0.02)	(0.03)	(0.01)	0.00	(0.06)	(0.01)	(0.04)	(0.02)
US Fund Mid-Cap Blend	56	79	79	47	25	12	45	21	20	27	20	73
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2021	2020	2019	2018	2017	2016
JPMorgan Mid Cap Growth R6	6.05	-26.96	-26.96	6.38	9.87	13.04	10.99	48.51	39.96	-4.97	29.72	0.37
Russell Mid Cap Growth Index	6.90	-26.72	-26.72	3.85	7.64	11.41	12.73	35.59	35.47	-4.75	25.27	7.33
+/- Index	(0.85)	(0.24)	(0.24)	2.53	2.23	1.63	(1.74)	12.92	4.49	(0.22)	4.46	(6.96)
US Fund Mid-Cap Growth	41	41	41	17	10	9	61	24	9	46	17	91
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2021	2020	2019	2018	2017	2016
Westwood SmallCap Instl	13.55	-12.46	-12.46	4.59	4.54	10.37	27.93	2.16	27.13	-14.16	12.36	28.33
Russell 2000 Value Index	8.42	-14.48	-14.48	4.70	4.13	8.48	28.27	4.63	22.39	-12.86	7.84	31.74
+/- Index	5.13	2.02	2.02	(0.11)	0.41	1.89	(0.34)	(2.48)	4.73	(1.30)	4.52	(3.41)
US Fund Small Value	15	60	60	77	54	12	68	60	14	38	19	29
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2021	2020	2019	2018	2017	2016
Vanguard Small Cap Index Adm	7.97	-17.61	-17.61	4.93	5.94	10.11	17.73	19.11	27.37	-9.31	16.24	18.30
Vanguard US Small Cap Index	7.95	-17.64	-17.64	4.90	5.92	10.09	17.71	19.07	27.35	-9.33	16.24	18.26
+/- Index	0.02	0.03	0.03	0.03	0.02	0.02	0.02	0.03	0.02	0.01	0.00	0.04
US Fund Small Blend	70	59	59	50	21	24	81	18	20	20	15	76
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2021	2020	2019	2018	2017	2016
Artisan Small Cap Instl	6.38	-29.28	-29.28	1.38	8.44	11.17	-8.68	61.31	40.48	2.45	27.09	5.76
Russell 2000 Growth Index	4.13	-26.36	-26.36	0.65	3.51	9.20	2.83	34.63	28.48	-9.31	22.17	11.32
+/- Index	2.25	(2.92)	(2.92)	0.73	4.93	1.97	(11.51)	26.68	12.00	11.76	4.93	(5.56)
US Fund Small Growth	23	61	61	70	19	25	97	12	5	12	26	83

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	QTR	YTD	1Yr	Annualized			2021	2020	2019	2018	2017	2016
				3Yr	5Yr	10Yr						
Dodge & Cox International Stock X	16.03	-6.72	-6.72	1.88	1.26	4.82	11.03	2.10	22.78	-17.98	23.94	8.26
MSCI ACWI Ex-USA Value (Net) Index	15.70	-8.59	-8.59	0.06	-0.05	2.72	10.46	-0.77	15.71	-13.97	22.66	8.92
+/- Index	0.33	1.87	1.87	1.82	1.31	2.10	0.57	2.87	7.07	(4.01)	1.28	(0.66)
US Fund Foreign Large Value	83	23	23	33	24	16	57	52	8	73	40	17
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2021	2020	2019	2018	2017	2016
Vanguard Total Intl Stock Index Adm	14.67	-16.01	-16.01	0.51	1.09	4.06	8.62	11.28	21.51	-14.43	27.55	4.67
Vanguard Total International Stock Index	14.14	-16.10	-16.10	0.52	1.10	4.20	8.84	11.24	21.81	-14.62	27.41	4.72
+/- Index	0.53	0.09	0.09	(0.01)	(0.01)	(0.14)	(0.22)	0.04	(0.30)	0.18	0.14	(0.05)
US Fund Foreign Large Blend	80	52	52	53	53	59	64	40	61	40	29	12
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2021	2020	2019	2018	2017	2016
American Funds EuroPacific Growth R6	13.78	-22.72	-22.72	-0.15	1.54	5.30	2.84	25.27	27.40	-14.91	31.17	1.01
MSCI ACWI Ex-USA Growth (Net) Index	12.89	-23.05	-23.05	-0.40	1.49	4.68	5.09	22.20	27.34	-14.43	32.01	0.12
+/- Index	0.89	0.33	0.33	0.25	0.05	0.62	(2.25)	3.06	0.06	(0.48)	(0.84)	0.89
US Fund Foreign Large Growth	50	30	30	54	56	37	77	34	63	56	48	24
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2021	2020	2019	2018	2017	2016
Invesco Global Opports R6	8.91	-41.39	-41.39	-6.21	-2.74	8.80	0.47	40.12	28.31	-17.77	53.18	11.16
MSCI World (Net) Index	9.77	-18.14	-18.14	4.94	6.14	8.85	21.82	15.90	27.67	-8.71	22.40	7.51
+/- Index	(0.86)	(23.25)	(23.25)	(11.15)	(8.88)	(0.05)	(21.35)	24.22	0.64	(9.06)	30.78	3.65
US Fund World Small/Mid Stock	55	92	92	92	94	18	93	26	50	71	2	17
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2021	2020	2019	2018	2017	2016
Vanguard Target Retirement Income	3.74	-12.74	-12.74	0.34	2.30	3.62	5.25	10.02	13.16	-1.99	8.47	5.25
Vanguard Retirement Income Index	3.95	-12.44	-12.44	0.72	2.58	3.86	5.43	10.70	13.40	-1.98	8.67	5.35
+/- Index	(0.21)	(0.30)	(0.30)	(0.38)	(0.28)	(0.24)	(0.18)	(0.68)	(0.24)	(0.01)	(0.19)	(0.10)
US Fund Target-Date Retirement	62	49	49	32	32	30	64	30	48	18	50	30

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	QTR	YTD	1Yr	<i>Annualized</i>			2021	2020	2019	2018	2017	2016
				3Yr	5Yr	10Yr						
Vanguard Target Retirement 2020	4.97	-14.15	-14.15	1.33	3.22	5.83	8.17	12.04	17.63	-4.24	14.08	6.95
Vanguard Retirement 2020 Index	5.12	-13.77	-13.77	1.81	3.58	6.13	8.43	12.86	17.87	-4.14	14.22	7.17
+/- Index	(0.15)	(0.38)	(0.38)	(0.48)	(0.36)	(0.30)	(0.26)	(0.82)	(0.24)	(0.10)	(0.14)	(0.22)
US Fund Target-Date 2020	69	40	40	48	37	26	62	41	32	47	23	30
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2021	2020	2019	2018	2017	2016
Vanguard Target Retirement 2025	6.03	-15.55	-15.55	1.66	3.58	6.43	9.80	13.30	19.63	-5.15	15.94	7.48
Vanguard Retirement 2025 Index	6.16	-15.02	-15.02	2.23	4.01	6.77	10.10	14.19	19.93	-5.01	16.08	7.66
+/- Index	(0.13)	(0.53)	(0.53)	(0.57)	(0.43)	(0.34)	(0.30)	(0.89)	(0.30)	(0.14)	(0.14)	(0.18)
US Fund Target-Date 2025	40	52	52	39	31	18	47	34	20	48	22	21
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2021	2020	2019	2018	2017	2016
Vanguard Target Retirement 2030	6.81	-16.27	-16.27	2.09	3.94	6.99	11.38	14.10	21.07	-5.86	17.52	7.85
Vanguard Retirement 2030 Index	6.92	-15.71	-15.71	2.66	4.35	7.33	11.65	14.96	21.33	-5.74	17.65	8.11
+/- Index	(0.11)	(0.56)	(0.56)	(0.57)	(0.41)	(0.34)	(0.27)	(0.86)	(0.26)	(0.12)	(0.13)	(0.26)
US Fund Target-Date 2030	39	47	47	46	39	26	54	35	37	39	37	27
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2021	2020	2019	2018	2017	2016
Vanguard Target Retirement 2035	7.45	-16.62	-16.62	2.64	4.34	7.57	12.96	14.79	22.44	-6.58	19.12	8.26
Vanguard Retirement 2035 Index	7.41	-16.22	-16.22	3.14	4.73	7.91	13.24	15.67	22.76	-6.48	19.24	8.55
+/- Index	0.04	(0.40)	(0.40)	(0.50)	(0.39)	(0.34)	(0.28)	(0.87)	(0.33)	(0.10)	(0.12)	(0.29)
US Fund Target-Date 2035	62	38	38	52	42	30	78	38	49	31	40	32
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2021	2020	2019	2018	2017	2016
Vanguard Target Retirement 2040	8.20	-16.98	-16.98	3.17	4.74	8.06	14.56	15.47	23.86	-7.32	20.71	8.73
Vanguard Retirement 2040 Index	8.23	-16.51	-16.51	3.70	5.14	8.42	14.85	16.31	24.19	-7.22	20.87	8.98
+/- Index	(0.03)	(0.47)	(0.47)	(0.53)	(0.40)	(0.36)	(0.29)	(0.83)	(0.33)	(0.11)	(0.16)	(0.25)
US Fund Target-Date 2040	63	34	34	49	40	23	80	39	49	35	30	23

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	QTR	YTD	1Yr	<i>Annualized</i>			2021	2020	2019	2018	2017	2016
				3Yr	5Yr	10Yr						
Vanguard Target Retirement 2045	8.89	-17.36	-17.36	3.74	5.14	8.34	16.16	16.30	24.94	-7.90	21.42	8.87
Vanguard Retirement 2045 Index	8.99	-16.84	-16.84	4.26	5.55	8.71	16.45	17.03	25.36	-7.77	21.54	9.13
+/- Index	(0.10)	(0.52)	(0.52)	(0.52)	(0.41)	(0.37)	(0.29)	(0.73)	(0.42)	(0.13)	(0.11)	(0.26)
US Fund Target-Date 2045	53	31	31	32	27	19	65	34	40	41	24	26
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2021	2020	2019	2018	2017	2016
Vanguard Target Retirement 2050	9.23	-17.46	-17.46	3.80	5.18	8.36	16.41	16.39	24.98	-7.90	21.39	8.85
Vanguard Retirement 2050 Index	9.18	-17.07	-17.07	4.30	5.58	8.72	16.77	17.18	25.36	-7.77	21.54	9.13
+/- Index	0.05	(0.39)	(0.39)	(0.50)	(0.40)	(0.36)	(0.36)	(0.79)	(0.38)	(0.13)	(0.14)	(0.28)
US Fund Target-Date 2050	44	29	29	32	28	20	70	35	45	37	31	27
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2021	2020	2019	2018	2017	2016
Vanguard Target Retirement 2055	9.23	-17.46	-17.46	3.79	5.18	8.34	16.44	16.32	24.98	-7.89	21.38	8.88
Vanguard Retirement 2055 Index	9.18	-17.07	-17.07	4.30	5.58	8.72	16.77	17.18	25.36	-7.77	21.54	9.13
+/- Index	0.05	(0.39)	(0.39)	(0.51)	(0.40)	(0.38)	(0.33)	(0.86)	(0.38)	(0.12)	(0.16)	(0.25)
US Fund Target-Date 2055	48	26	26	36	29	26	75	40	47	35	39	26
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2021	2020	2019	2018	2017	2016
Vanguard Target Retirement 2060	9.23	-17.46	-17.46	3.79	5.18	8.34	16.44	16.32	24.96	-7.87	21.36	8.84
Vanguard Retirement 2060 Index	9.18	-17.07	-17.07	4.30	5.58	8.72	16.77	17.18	25.36	-7.77	21.54	9.13
+/- Index	0.05	(0.39)	(0.39)	(0.51)	(0.40)	(0.38)	(0.33)	(0.85)	(0.40)	(0.10)	(0.18)	(0.28)
US Fund Target-Date 2060	53	25	25	38	32	50	77	41	56	30	43	23
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	2021	2020	2019	2018	2017	2016
Vanguard Target Retirement 2065	9.24	-17.39	-17.39	3.78	5.15	-	16.46	16.17	24.96	-7.95	-	-
Vanguard Retirement 2065 Index	9.18	-17.07	-17.07	4.30	5.58	-	16.77	17.18	25.36	-7.77	-	-
+/- Index	0.06	(0.32)	(0.32)	(0.52)	(0.43)	-	(0.31)	(1.00)	(0.39)	(0.18)	-	-
US Fund Target-Date 2065+	51	18	18	31	31	-	67	56	59	12	-	-

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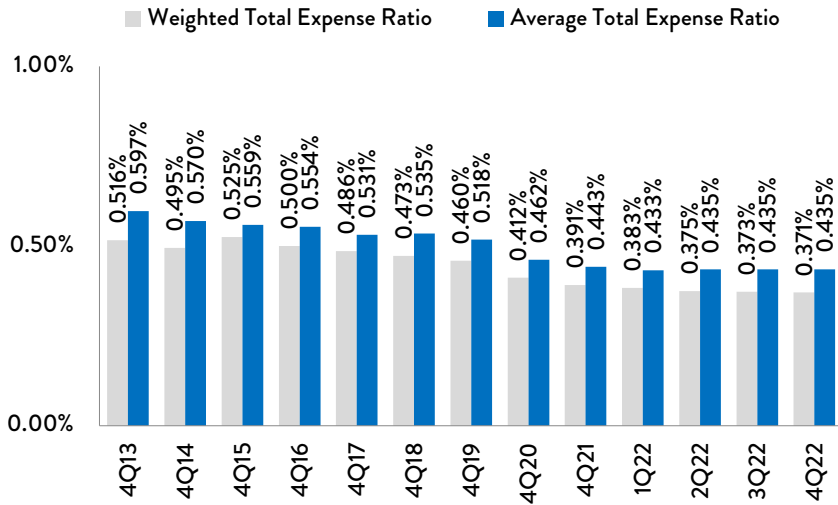
PERFORMANCE REVIEW

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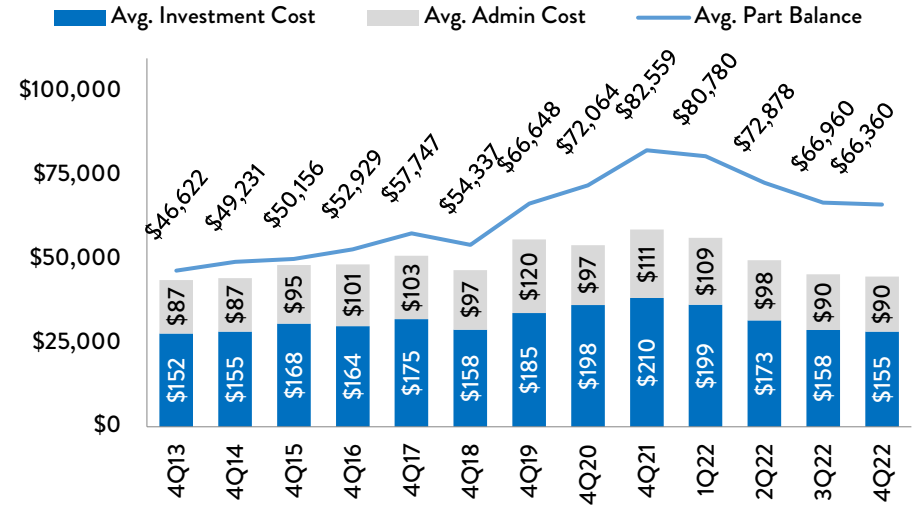
	QTR	YTD	1Yr	<i>Annualized</i>			2021	2020	2019	2018	2017	2016
				3Yr	5Yr	10Yr						
Vanguard Target Retirement 2070	9.21	-	-	-	-	-	-	-	-	-	-	-
Vanguard Retirement 2070 Index	9.18	-	-	-	-	-	-	-	-	-	-	-
+/- Index	0.03	-	-	-	-	-	-	-	-	-	-	-
US Fund Target-Date 2065+	54	-	-	-	-	-	-	-	-	-	-	-

Section 5

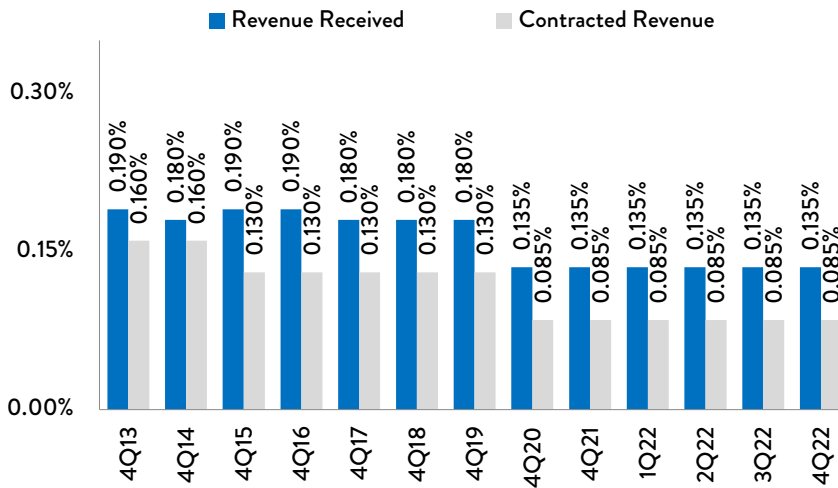
Annualized Plan Cost (%)



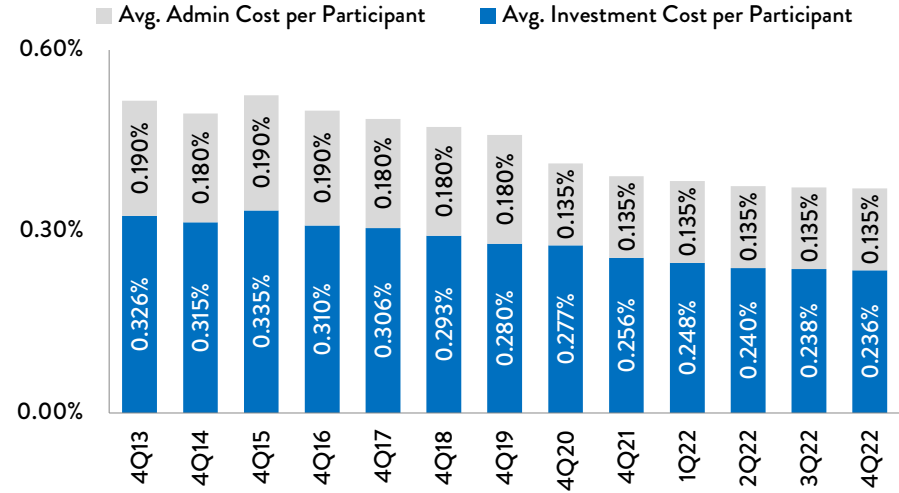
Average Participant Balance and Cost (\$)



Annualized Contracted Revenue v. Revenue Received (as a % of total assets)



Annualized Investment Cost Summary (as a % of total assets)



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PLAN FEE ANALYSIS

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Annualized

Fund	Ticker	Quarter Average Assets	Net Expense Ratio	Admin Fee	Est. Total Invest. Cost	Est. Total Admin. Cost
MissionSquare PLUS Fund R10*	-	\$26,113,266	0.31%	0.135%	\$80,951	\$35,253
Western Asset Core Plus Bond I**	WACPX	\$2,966,233	0.10%	0.135%	\$2,966	\$4,004
Vanguard Total Bond Market Index Adm	VBTLX	\$3,443,894	0.05%	0.135%	\$1,722	\$4,649
PIMCO Real Return Instl	PRRIX	\$1,441,542	0.45%	0.135%	\$6,487	\$1,946
American Beacon SiM High Yield Opps R5	SHOIX	\$1,278,755	0.75%	0.135%	\$9,591	\$1,726
American Beacon Large Cap Value R6	AALRX	\$3,251,656	0.60%	0.135%	\$19,510	\$4,390
Parnassus Core Equity Instl**	PRILX	\$2,471,987	0.51%	0.135%	\$12,607	\$3,337
Vanguard Institutional Index Instl	VINIX	\$12,228,503	0.04%	0.135%	\$4,280	\$16,508
T. Rowe Price Large Cap Growth I	TRLGX	\$9,034,306	0.55%	0.135%	\$49,689	\$12,196
Allspring Special Mid Cap Value Fund	WFPRX	\$1,825,091	0.70%	0.135%	\$12,776	\$2,464
Vanguard Mid Cap Index Adm	VIMAX	\$3,066,997	0.05%	0.135%	\$1,533	\$4,140
JPMorgan Mid Cap Growth R6	JMGMX	\$630,972	0.70%	0.135%	\$4,417	\$852
Westwood SmallCap Instl**	WHGSX	\$895,524	0.77%	0.135%	\$6,896	\$1,209
Vanguard Small Cap Index Adm	VSMAX	\$3,141,292	0.05%	0.135%	\$1,571	\$4,241
Artisan Small Cap Instl	APHSX	\$1,127,009	0.96%	0.135%	\$10,819	\$1,521
Dodge & Cox International Stock X	DOAFX	\$955,328	0.52%	0.135%	\$4,968	\$1,290
Dodge & Cox International Stock**	DODFX	\$814,423	0.52%	0.135%	\$4,235	\$1,099
Vanguard Total Intl Stock Index Adm	VTIAX	\$2,714,522	0.11%	0.135%	\$2,986	\$3,665
American Funds EuroPacific Growth R6	REGX	\$2,272,405	0.46%	0.135%	\$10,453	\$3,068
Invesco Global Opports R6	OGLIX	\$1,223,120	0.68%	0.135%	\$8,317	\$1,651
Vanguard Target Retirement Income	VTINX	\$3,128,688	0.08%	0.135%	\$2,503	\$4,224
Vanguard Target Retirement 2020	VTWNX	\$5,873,343	0.08%	0.135%	\$4,699	\$7,929
Vanguard Target Retirement 2025	VTTVX	\$4,542,640	0.08%	0.135%	\$3,634	\$6,133
Vanguard Target Retirement 2030	VTHRX	\$7,815,006	0.08%	0.135%	\$6,252	\$10,550
Vanguard Target Retirement 2035	VTHX	\$1,648,591	0.08%	0.135%	\$1,319	\$2,226
Vanguard Target Retirement 2040	VFORX	\$9,767,294	0.08%	0.135%	\$7,814	\$13,186
Vanguard Target Retirement 2045	VTIVX	\$3,011,969	0.08%	0.135%	\$2,410	\$4,066
Vanguard Target Retirement 2050	VFIFX	\$4,762,959	0.08%	0.135%	\$3,810	\$6,430
Vanguard Target Retirement 2055	VFFVX	\$1,094,991	0.08%	0.135%	\$876	\$1,478
Vanguard Target Retirement 2060	VTTX	\$421,259	0.08%	0.135%	\$337	\$569
Vanguard Target Retirement 2065	VLXVX	\$96,484	0.08%	0.135%	\$77	\$130

LANE COUNTY

457 Deferred Compensation Plans

PLAN FEE ANALYSIS

Fourth Quarter 2022

Annualized

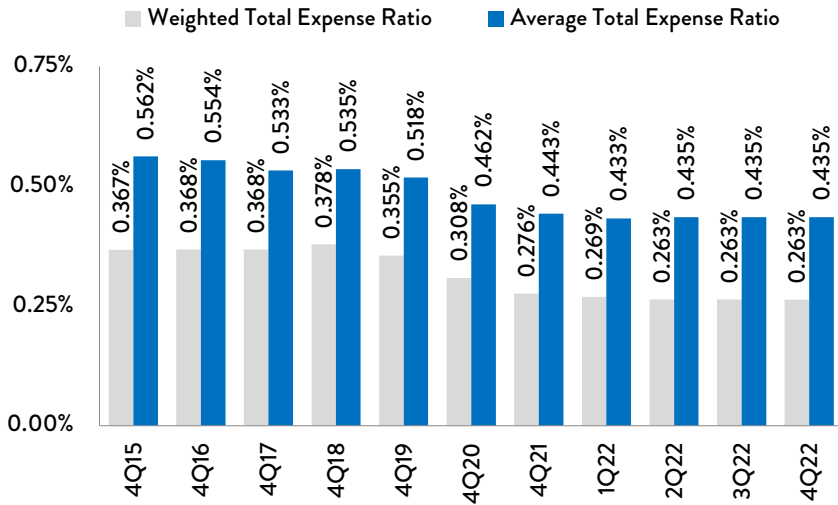
Fund	Ticker	Quarter Average Assets	Net Expense Ratio	Admin Fee	Est. Total Invest. Cost	Est. Total Admin. Cost
Vanguard Target Retirement 2070	VSVNX	\$0	0.08%	0.135%	\$0	\$0
Self-Directed Brokerage**	-	\$1,166,246	-	0.135%	-	\$1,574
TOTAL		\$124,226,295			\$290,504	\$167,705

Plan Administration Cost	Quarter	Annualized
Plan Generated Revenue (est):	\$42,271	\$167,705
Contracted Revenue (est):	\$26,615	\$105,592
Net Excess/(Deficit) (est):	\$15,656	\$62,113

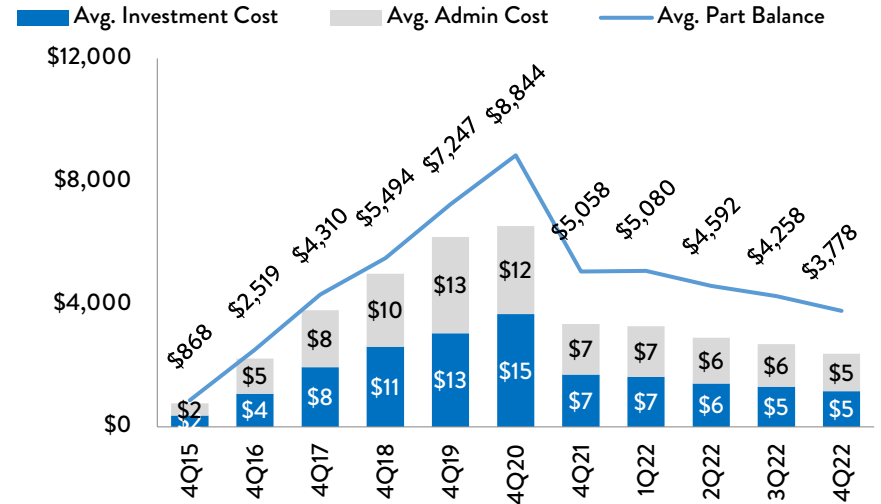
*For reporting purposes, fund level fees have been excluded from the fund expense ratio calculations.

**Revenue generated by investment options is credited back to the participants invested in those funds. This is reflected in the Net Expense Ratios.

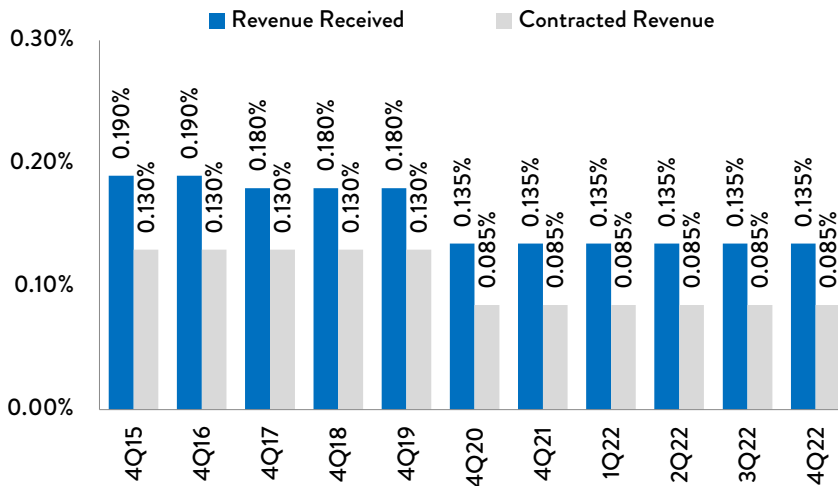
Annualized Plan Cost (%)



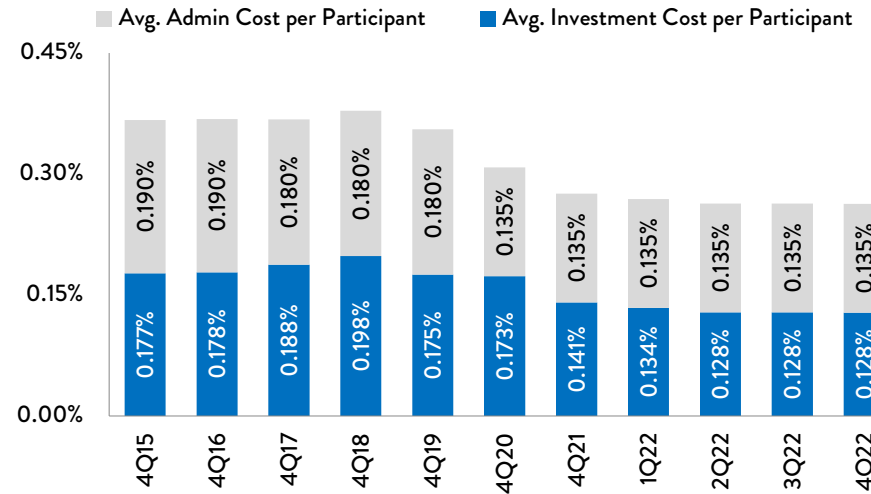
Average Participant Balance and Cost (\$)*



Annualized Contracted Revenue v. Revenue Received (as a % of total assets)



Annualized Investment Cost Summary (as a % of total assets)



*Average participant balance drop in 4Q21 due to increase in number of participants with a balance as a result of AFSCME contract negotiations.

LANE COUNTY

401(a) Defined Contribution Plan

PLAN FEE ANALYSIS

Fourth Quarter 2022

Annualized

Fund	Ticker	Quarter Average	Net Expense	Admin Fee	Est. Total Invest.	Est. Total Admin.
		Assets	Ratio		Cost	Cost
MissionSquare PLUS Fund R10*	-	\$320,704	0.31%	0.135%	\$994	\$433
Western Asset Core Plus Bond I**	WACPX	\$70,390	0.10%	0.135%	\$70	\$95
Vanguard Total Bond Market Index Adm	VBTLX	\$145,706	0.05%	0.135%	\$73	\$197
PIMCO Real Return Instl	PRRIX	\$48,987	0.45%	0.135%	\$220	\$66
American Beacon SiM High Yield Opps R5	SHOIX	\$39,036	0.75%	0.135%	\$293	\$53
American Beacon Large Cap Value R6	AALRX	\$81,539	0.60%	0.135%	\$489	\$110
Parnassus Core Equity Instl**	PRILX	\$41,699	0.51%	0.135%	\$213	\$56
Vanguard Institutional Index Instl	VINIX	\$461,258	0.04%	0.135%	\$161	\$623
T. Rowe Price Large Cap Growth I	TRLGX	\$45,505	0.55%	0.135%	\$250	\$61
Allspring Special Mid Cap Value Fund	WFPRX	\$81,166	0.70%	0.135%	\$568	\$110
Vanguard Mid Cap Index Adm	VIMAX	\$48,059	0.05%	0.135%	\$24	\$65
JPMorgan Mid Cap Growth R6	JMGMX	\$7,553	0.70%	0.135%	\$53	\$10
Westwood SmallCap Instl**	WHGSX	\$15,278	0.77%	0.135%	\$118	\$21
Vanguard Small Cap Index Adm	VSMAX	\$169,959	0.05%	0.135%	\$85	\$229
Artisan Small Cap Instl	APHSX	\$32,918	0.96%	0.135%	\$316	\$44
Dodge & Cox International Stock X	DOAFX	\$40,481	0.52%	0.135%	\$211	\$55
Dodge & Cox International Stock**	DODFX	\$31,367	0.52%	0.135%	\$163	\$42
Vanguard Total Intl Stock Index Adm	VTIAX	\$171,208	0.11%	0.135%	\$188	\$231
American Funds EuroPacific Growth R6	RERGX	\$133,343	0.46%	0.135%	\$613	\$180
Invesco Global Opports R6	OGIIX	\$17,088	0.68%	0.135%	\$116	\$23
Vanguard Target Retirement Income	VTINX	\$94,861	0.08%	0.135%	\$76	\$128
Vanguard Target Retirement 2020	VTWNX	\$412,427	0.08%	0.135%	\$330	\$557
Vanguard Target Retirement 2025	VTTVX	\$697,418	0.08%	0.135%	\$558	\$942
Vanguard Target Retirement 2030	VTHRXX	\$757,107	0.08%	0.135%	\$606	\$1,022
Vanguard Target Retirement 2035	VTTHX	\$853,571	0.08%	0.135%	\$683	\$1,152
Vanguard Target Retirement 2040	VFORX	\$1,132,694	0.08%	0.135%	\$906	\$1,529
Vanguard Target Retirement 2045	VTIVX	\$716,419	0.08%	0.135%	\$573	\$967
Vanguard Target Retirement 2050	VFIFX	\$371,570	0.08%	0.135%	\$297	\$502
Vanguard Target Retirement 2055	VFFVX	\$289,429	0.08%	0.135%	\$232	\$391
Vanguard Target Retirement 2060	VTTSX	\$122,112	0.08%	0.135%	\$98	\$165
Vanguard Target Retirement 2065	VLXVX	\$71,172	0.08%	0.135%	\$57	\$96

LANE COUNTY

401(a) Defined Contribution Plan

PLAN FEE ANALYSIS

Fourth Quarter 2022

Annualized

Fund	Ticker	Quarter Average Assets	Net Expense Ratio	Admin Fee	Est. Total Invest. Cost	Est. Total Admin. Cost
Vanguard Target Retirement 2070	VSVNX	\$310	0.08%	0.135%	\$0	\$0
Self-Directed Brokerage	-	\$22	-	0.135%	-	\$0
TOTAL		\$7,522,356			\$9,635	\$10,155

Plan Administration Cost	Quarter	Annualized
Plan Generated Revenue (est):	\$2,560	\$10,155
Contracted Revenue (est):	\$1,612	\$6,394
Net Excess/(Deficit) (est):	\$948	\$3,761

*For reporting purposes, fund level fees have been excluded from the fund expense ratio calculations.

**Revenue generated by investment options is credited back to the participants invested in those funds. This is reflected in the Net Expense Ratios.

Section 6

Allspring Special Mid Cap Value R6 (USD)

Morningstar Quantitative Rating™
Bronze ^o
 12-31-2022

Overall Morningstar Rating™
 ★★★★★
 393 US Fund Mid-Cap Value

Standard Index
 S&P 500 TR USD

Category Index
 Russell Mid Cap Value TR USD

Morningstar Cat
 US Fund Mid-Cap Value

Performance 01-31-2023					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2021	11.20	6.08	-0.72	9.98	28.80
2022	-2.27	-10.19	-4.62	14.08	-4.50
2023	—	—	—	—	6.58

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly Std 12-31-2022	5.10	11.53	9.17	—	11.35
Total Return	-4.50	—	8.45	—	10.72
	5.10	11.53	9.17	11.91	11.35
+/- Std Index	13.32	1.64	-0.37	-0.77	—
+/- Cat Index	5.79	2.21	2.28	1.73	—
% Rank Cat	24	34	11	4	—
No. in Cat	404	393	372	273	—

7-day Yield — Subsidized
 30-day SEC Yield — Unsubsidized

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 future 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.

Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-222-9222 or visit www.allspringglobal.com.

Fees and Expenses

Sales Charges
Front-End Load % NA
Deferred Load % NA

Fund Expenses

Management Fees % 0.66
 12bt Expense % 0.00
Net Expense Ratio % 0.69
Gross Expense Ratio % 0.69
Risk and Return Profile

	3 Yr	5 Yr	10 Yr
Morningstar Rating™	393 funds	372 funds	273 funds
	4★	4★	5★
Morningstar Risk	Avg	Avg	-Avg
Morningstar Return	Avg	+Avg	High

	3 Yr	5 Yr	10 Yr
Standard Deviation	24.04	20.79	16.20
Mean	11.53	9.17	11.91
Sharpe Ratio	0.54	0.46	0.73

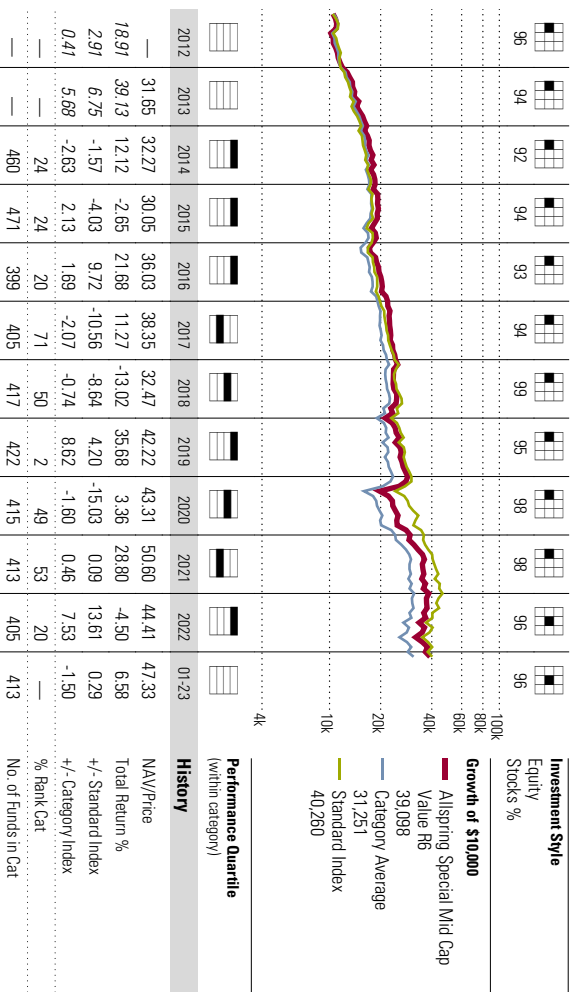
MPI Statistics	Standard Index	Best Fit Index	Russell Mid Cap Value TR USD
Alpha	2.05	2.38	2.38
Beta	1.02	0.95	0.95
R-Squared	81.84	97.64	97.64
12-Month Yield	—	—	—
Potential Cap Gains Exp	6.57%	—	—

Operations

Family: Allspring Global Investments
 Manager: Multiple
 Tenure: 14.1 Years
 Objective: Growth

Base Currency: USD
 Ticker: WFPX
 ISIN: US94987WM132
 Minimum Initial Purchase: \$0

Purchase Constraints: A
 Incept: 06-28-2013
 Type: MF
 Total Assets: \$12,308.61 mil



Portfolio Analysis 01-31-2023

Asset Allocation %	Net %	Long %	Short %
Cash	4.09	4.09	0.00
US Stocks	91.90	91.90	0.00
Non-US Stocks	4.01	4.01	0.00
Bonds	0.00	0.00	0.00
Other/Not Cstfd	0.00	0.00	0.00
Total	100.00	100.00	0.00

Top Holdings 12-31-2022

Share Cng	Share	Holdings:	NAV/Price	Total Return %	+/- Standard Index	+/- Category Index	% Rank Cat	No. of Funds in Cat
12-2022	59	Total Stocks - 112 Total Fixed-Income, 24% Turnover Ratio	47.33	6.58	0.29	-1.50	—	413
429 mil	7 mil	AerCap Government MMKT Select	44.41	-4.50	13.61	7.53	20	413
7 mil	7 mil	AerCap Holdings NV	44.41	-4.50	13.61	7.53	20	413
6 mil	7 mil	Arch Capital Group Ltd	44.41	-4.50	13.61	7.53	20	413
7 mil	7 mil	LKQ Corp	44.41	-4.50	13.61	7.53	20	413
4 mil	4 mil	Andros Ltd	44.41	-4.50	13.61	7.53	20	413
3 mil	3 mil	Republic Services Inc	44.41	-4.50	13.61	7.53	20	413
3 mil	3 mil	Jacobs Solutions Inc	44.41	-4.50	13.61	7.53	20	413
4 mil	4 mil	D.R. Horton Inc	44.41	-4.50	13.61	7.53	20	413
2 mil	2 mil	Vulcan Materials Co	44.41	-4.50	13.61	7.53	20	413
10 mil	10 mil	Reynolds Consumer Products Inc Ord	44.41	-4.50	13.61	7.53	20	413
4 mil	4 mil	CBRE Group Inc Class A	44.41	-4.50	13.61	7.53	20	413
3 mil	3 mil	American Electric Power Co Inc	44.41	-4.50	13.61	7.53	20	413
1 mil	1 mil	Carlife.com Inc	44.41	-4.50	13.61	7.53	20	413
7 mil	7 mil	FirstEnergy Corp	44.41	-4.50	13.61	7.53	20	413
4 mil	4 mil	Church & Dwight Co Inc	44.41	-4.50	13.61	7.53	20	413

Fixed-Income Style			Avg Eff Maturity	Avg Eff Duration	Avg Wtd Coupon	Avg Wtd Price
Value	Brand	Geom	—	—	—	—
Large	Med	Ext	—	—	—	—
High	Med	Low	—	—	—	—

Credit Quality Breakdown

	AAA	AA	A	BBB	BB	B	Below B	Bond %
AAA	—	—	—	—	—	—	—	—
AA	—	—	—	—	—	—	—	—
A	—	—	—	—	—	—	—	—
BBB	—	—	—	—	—	—	—	—
BB	—	—	—	—	—	—	—	—
B	—	—	—	—	—	—	—	—
Below B	—	—	—	—	—	—	—	—

Regional Exposure	Stocks %	Rel Std Index
Americas	95.8	0.97
Greater Europe	2.5	2.37
Greater Asia	1.6	43.00

Sector Weightings	Stocks %	Rel Std Index
Cyclical	43.5	1.46
Basic Materials	5.0	2.00
Consumer Cyclical	13.3	1.28
Financial Services	16.0	1.14
Real Estate	9.1	3.17
Sensitive	35.8	0.79
Communication Services	1.0	0.13
Energy	6.8	1.35
Industrials	19.3	2.20
Technology	8.6	0.36
Defensive	20.7	0.83
Consumer Defensive	5.2	0.72
Healthcare	8.6	0.58
Utilities	7.0	2.38

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American Beacon Large Cap Value R6 (USD)

Morningstar Analyst Rating™
Bronze
12-09-2022

Overall Morningstar Rating™
★★★★
1,156 US Fund Large Value

Standard Index
S&P 500 TR USD

Category Index Russell 1000 Value
Morningstar Cat US Fund Large Value TR USD

Performance 01-31-2023					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2021	13.71	5.83	-1.12	7.55	27.98
2022	-0.64	-11.95	-5.39	14.47	-5.24
2023	—	—	—	—	6.11

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	1.34	11.34	7.59	—	9.49
Std 12-31-2022	-5.24	—	7.43	—	8.53
Total Return	1.34	11.34	7.59	10.60	9.49
+/- Std Index	9.56	1.46	-1.95	-2.08	—
+/- Cat Index	1.77	2.80	0.65	0.45	—
% Rank Cat	36	26	43	36	—
No. in Cat	1234	1156	1102	824	—

7-day Yield — Subsidized
30-day SEC Yield — Unsubsidized

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.

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Fees and Expenses

Sales Charges
Front-End Load % NA
Deferred Load % NA

Fund Expenses

Management Fees % 0.55
12b1 Expense % 0.00
Net Expense Ratio % 0.60
Gross Expense Ratio % 0.60

Risk and Return Profile

	3 Yr	5 Yr	10 Yr
Morningstar Rating™	1,156 funds	1,102 funds	824 funds
	3★	3★	3★
Morningstar Risk	+Avg	+Avg	+Avg
Morningstar Return	+Avg	+Avg	+Avg

Standard Deviation 24.07 21.35 16.94
Mean 11.34 7.59 10.60
Sharpe Ratio 0.53 0.39 0.63

MPI Statistics

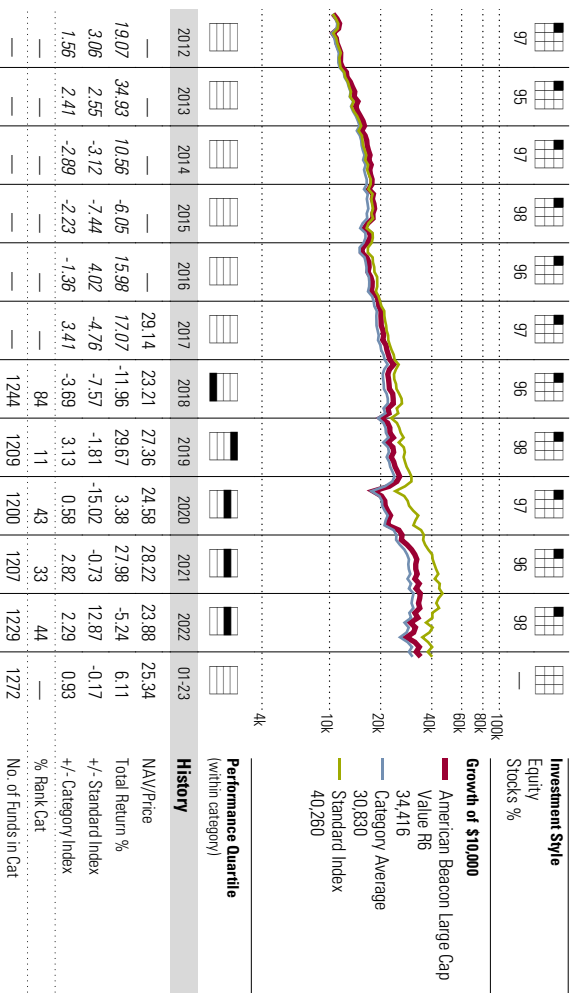
	Standard Index	Best Fit Index
Alpha	1.58	2.12
Beta	1.04	1.10
R-Squared	85.05	98.64
12-Month Yield	—	—
Potential Cap Gains Exp	31.27%	—

Operations

Family: American Beacon
Manager: Multiple
Tenure: 33.2 Years
Objective: Growth and Income

Base Currency: USD
Ticker: AABRX
SIN: US0245267903
Minimum Initial Purchase: \$0

Purchase Constraints: —
Incept: 02-28-2017
Type: MF
Total Assets: \$3,361.53 mil



Portfolio Analysis 11-30-2022

Asset Allocation %	Net %	Long %	Short %	Share Clng since 10-2022	Share Amount	Holdings: 161 Total Stocks, 29 Total Fixed-Income, 25% Turnover Ratio	Net Assets %
Cash	1.69	1.69	0.01	—	—	—	—
US Stocks	91.92	91.92	0.00	—	—	—	—
Non-US Stocks	6.40	6.40	0.00	—	—	—	—
Bonds	0.00	0.00	0.00	—	—	—	—
Other/Not Clsfd	0.00	0.00	0.00	—	—	—	—
Total	100.00	100.01	0.01	—	—	—	—

Equity Style	Value	Brand	Geom	Port Avg	Rel Index	Rel Cat
	Large	Med	Ext	P/E Ratio TTM	14.3	0.70
	Large	Med	Ext	P/C Ratio TTM	11.1	0.74
	Large	Med	Ext	P/B Ratio TTM	2.2	0.60
	Large	Med	Ext	Geo Avg Mkt Cap \$mil	64945	0.38

Fixed-Income Style	Value	Brand	Geom	Port Avg	Rel Index	Rel Cat
	High	Med	Ext	Avg Eff Maturity	—	—
	High	Med	Ext	Avg Eff Duration	—	—
	High	Med	Ext	Avg Wtd Duration	—	—
	High	Med	Ext	Avg Wtd Coupon	—	—
	High	Med	Ext	Avg Wtd Price	—	—

Credit Quality Breakdown

	AAA	AA	A	BBB	BB	B	Below B	Bond %
AAA	—	—	—	—	—	—	—	—
AA	—	—	—	—	—	—	—	—
A	—	—	—	—	—	—	—	—
BBB	—	—	—	—	—	—	—	—
BB	—	—	—	—	—	—	—	—
B	—	—	—	—	—	—	—	—
Below B	—	—	—	—	—	—	—	—

Regional Exposure	Stocks %	Rel Std Index
Americas	94.4	0.95
Greater Europe	5.6	5.19
Greater Asia	0.0	0.00

Sector Weightings	Stocks %	Rel Std Index
Cyclical	34.4	1.16
Basic Materials	4.9	1.95
Consumer Cyclical	5.8	0.56
Financial Services	22.1	1.57
Real Estate	1.7	0.57
Sensitive	42.4	0.93
Communication Services	5.9	0.76
Energy	10.1	2.00
Industrials	15.4	1.76
Technology	11.0	0.46
Defensive	23.1	0.93
Consumer Defensive	4.8	0.67
Healthcare	14.8	1.01
Utilities	3.5	1.21

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American Beacon SIM High Yld Opps R5 (USD)

Morningstar Analyst Rating™ Overall Morningstar Rating™ Standard Index Category Index Morningstar Cat
 Neutral 03-15-2022 ***** Bloomberg US ICE BofA US High US Fund High Yield
 626 US Fund High Yield Bond Agg Bond TR USD Yield TR USD Bond

Performance 01-31-2023					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2021	3.96	3.66	1.13	-0.16	8.81
2022	-3.16	-7.30	-0.62	4.26	-6.97
2023	—	—	—	—	3.60
Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-1.73	3.91	4.21	5.04	5.99
Std 12-31-2022	-6.97	—	3.67	4.92	5.71
Total Return	-1.73	3.91	4.21	5.04	5.99
+/- Std Index	6.63	6.26	3.34	3.61	—
+/- Cat Index	3.41	2.86	1.43	0.84	—
% Rank Cat	12	3	4	3	—
No. in Cat	683	626	582	414	—

7-day Yield — Subsidized Unsubsidized
 30-day SEC Yield 01-31-23 7.43 1 7.38
 1. Contractual yielder. Expires 12-31-2023

Performance Disclosure
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Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-658-5811 or visit www.americanbeaconfunds.com.

Fees and Expenses

Sales Charges
Front-End Load % NA
Deferred Load % NA

Fund Expenses

Management Fees % 0.72
 1201 Expense % 0.00
Net Expense Ratio % 0.75
Gross Expense Ratio % 0.82
Risk and Return Profile

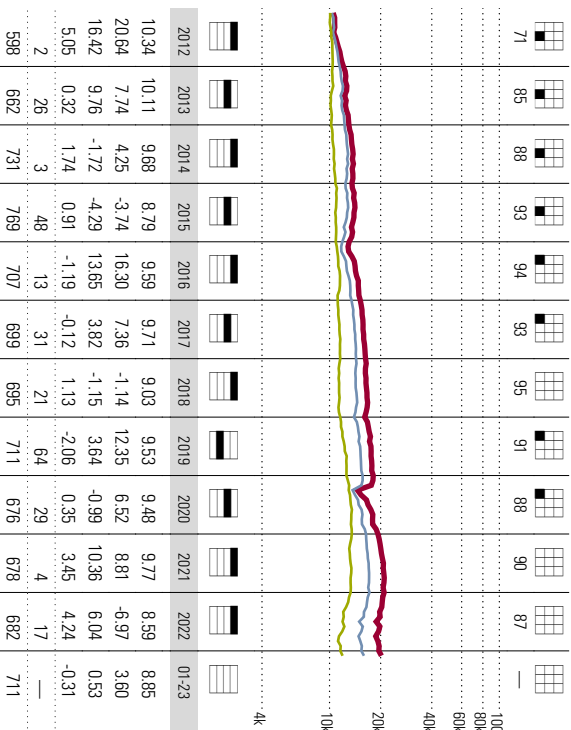
	3 Yr	5 Yr	10 Yr
Morningstar Rating™	5★	5★	5★
Morningstar Risk	High	High	High
Morningstar Return	High	High	High

	3 Yr	5 Yr	10 Yr
Standard Deviation	13.76	10.96	8.43
Mean	3.91	4.21	5.04
Shapre Ratio	0.28	0.31	0.53

MF Statistics	Standard Index	Best Fit Index ICE BofA US High	Yield TR USD
Alpha	6.89	3.00	—
Beta	0.96	1.15	—
R-Squared	17.46	91.72	—
12-Month Yield	5.76%	-10.14%	—

Operations

Family: American Beacon
Manager: Multiple
Tenure: 12.0 Years
Objective: Corporate Bond - High Yield



Investment Style	Performance Quartile (within category)
Fixed-Income Bond %	—
Growth of \$10,000	—
American Beacon SIM High	—
Yld Opps R5	—
20/207	—
Category Average	—
15,946	—
Standard Index	—
11,932	—

Portfolio Analysis 11-30-2022					
Asset Allocation %	Net %	Long %	Short %	Share Clng since 10-2022	Share Holdings:
Cash	-8.44	1.81	10.25	5 Total Stocks: 83 Total Fixed-Income.	Amount
US Stocks	4.32	4.32	0.00	77% Turnover Ratio	21 mil Scorpio Tankers Inc 3%
Non-US Stocks	0.00	0.00	0.00		28 mil Baytex Energy Corp 8.75%
Bonds	96.27	96.27	0.00		30 mil Navios South American Logistics In
Other/Not Clsfd	7.85	7.85	0.00		33 mil Strathcona Resources Limited 6.875%
Total	100.00	110.25	10.25		30 mil Victrias Secret and Co 4.625%

Equity Style	Portfolio Statistics	Port Avg Index	Rel Index	Rel Cat
Value Brand Growth	P/E Ratio TTM	11.6	—	—
Large	P/C Ratio TTM	3.3	—	—
Med	P/B Ratio TTM	1.7	—	—
Small	Geo Avg Mkt Cap	9802	—	—

Fixed-Income Style	Avg Eff Maturity	Avg Eff Duration	Avg Wtd Coupon	Avg Wtd Price
High	—	—	—	5.49
Med	—	—	—	89.92
Low	—	—	—	—

Sector Weightings	Stocks %	Rel Std Index
Cyclical	0.0	—
Basic Materials	0.0	—
Consumer Cyclical	0.0	—
Financial Services	0.0	—
Real Estate	0.0	—
Sensitive	100.0	—
Communication Services	0.0	—
Energy	100.0	—
Industrials	0.0	—
Technology	0.0	—
Defensive	0.0	—
Consumer Defensive	0.0	—
Healthcare	0.0	—
Utilities	0.0	—

Credit Quality Breakdown 12-31-2022	Bond %
AAA	0.00
AA	0.00
A	0.00
BBB	7.13
BB	38.09
B	32.86
Below B	1.59
NR	20.33

Regional Exposure	Stocks %	Rel Std Index
Americas	100.0	—
Greater Europe	0.0	—
Greater Asia	0.0	—

Base Currency: USD
Ticker: SH10X
SIN: US0245242823
Minimum Initial Purchase: \$250,000
Purchase Constraints: —
Incept: 02-14-2011
Type: MF
Total Assets: \$1,560.02 mil

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American Funds Europacific Growth R6 (USD)

Morningstar Analyst Rating™ Overall **Morningstar Rating™** Standard Index
Gold 07-29-2022

★★★★★
 401 US Fund Foreign Large Growth

MSCI ACWI EX USA NR USD
 MSCI ACWI EX USA Growth NR USD
Morningstar Cat US Fund Foreign Large Growth

Performance 01-31-2023					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2021	-0.43	6.97	-2.35	-1.13	2.94
2022	-12.24	-14.65	-9.33	13.78	-22.72
2023	—	—	—	—	9.08

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-9.01	3.85	2.09	5.83	7.88
Std 12-31-2022	-22.72	—	1.54	5.30	7.25
Total Return	-9.01	3.85	2.09	5.83	7.88
+/- Std Index	-3.29	0.20	0.73	1.63	—
+/- Cat Index	0.22	1.18	-0.02	0.66	—
% Rank Cat	38	49	61	39	—
No. in Cat	444	401	348	230	—

7-day Yield	Subsidized	Unsubsidized
30-day SEC Yield 01-31-23	0.73	0.73

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.

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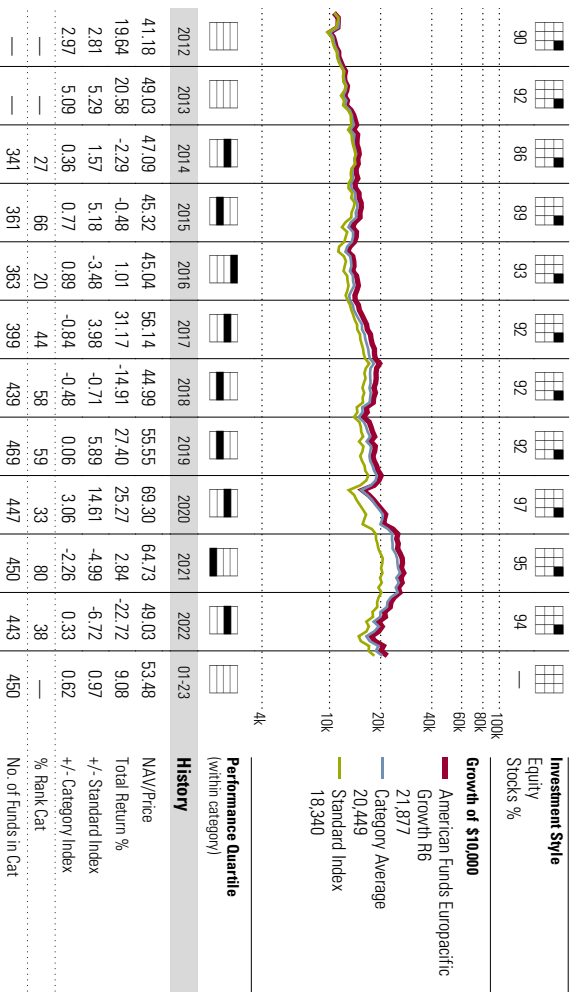
Fees and Expenses	
Sales Charges	NA
Front-End Load %	NA
Deferred Load %	NA
Fund Expenses	0.41
Management Fees %	NA
12B1 Expense %	NA
Net Expense Ratio %	0.46
Gross Expense Ratio %	0.46
Risk and Return Profile	

	3 Yr	5 Yr	10 Yr
Morningstar Rating™	401 funds	348 funds	230 funds
Morningstar Risk	3★	3★	3★
Morningstar Return	Avg	Avg	Avg

	3 Yr	5 Yr	10 Yr
Standard Deviation	21.97	18.98	15.37
Mean	3.85	2.09	5.83
Sharpe Ratio	0.24	0.13	0.39

MPT Statistics	Standard Index	Best Fit Index
Morningstar Gbl	Morningstar Gbl	Morningstar Gbl
XS Growth TME	XS Growth TME	NR USD

Operations	
Family:	American Funds
Manager:	Multiple
Tenure:	21.7 Years
Objective:	Foreign Stock
Base Currency:	USD



Portfolio Analysis 12-31-2022			
Asset Allocation %	Net %	Long %	Short %
Cash	5.30	5.79	0.49
US Stocks	2.08	2.08	0.00
Non-US Stocks	91.93	91.93	0.00
Bonds	0.30	0.30	0.00
Other/Not Cstfd	0.39	0.39	0.00
Total	100.00	100.49	0.49

Equity Style		Portfolio Statistics	
Value	Brand Growth	Port Avg	Rel Index
Large	Mid	16.9	1.34
Mid	Small	11.7	1.30
High	Low	2.8	1.66
Low	High	53735	1.24
Low	High	1.24	1.11

Fixed-Income Style		Credit Quality Breakdown	
Lat	Med	Ext	Bond %
High	Med	Low	—
High	Med	Low	2.13

Regional Exposure		Sector Weightings	
Americas	14.2	Basic Materials	8.6
Greater Europe	46.2	Consumer Cyclical	12.9
Greater Asia	39.7	Financial Services	13.1
		Real Estate	0.6
		Sensitive	41.9
		Communication Services	3.2
		Energy	10.3
		Industrials	13.8
		Technology	14.6
		Defensive	22.8
		Consumer Defensive	7.4
		Healthcare	14.3
		Utilities	1.2

Operations	
Ticker:	REGX
ISIN:	US2987068218
Minimum Initial Purchase:	\$250
Min Auto Investment Plan:	\$250
Minimum IRA Purchase:	\$25

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Artisan Small Cap Institutional (USD)

Morningstar Analyst Rating™ Overall Morningstar Rating™ Standard Index Category Index Morningstar Cat
Silver **★★★★** **S&P 500 TR USD** **Russell 2000** **US Fund Small Growth**
 09-15-2022 576 US Fund Small Growth Growth TR USD

Performance 01-31-2023					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2021	-4.95	4.41	-1.13	-6.93	-8.88
2022	-18.02	-21.47	3.27	6.38	-29.28
2023	—	—	—	—	8.38

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-8.31	3.37	9.07	11.34	11.78
Std 12-31-2022	-29.28	—	8.44	11.17	11.04
Total Return	-8.31	3.37	9.07	11.34	11.78

+/- Std Index		+/- Cat Index	
-	-0.10	-6.51	-0.47
+	-1.81	-0.89	4.38

% Rank Cat	49	86	29	26
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No. in Cat	608	576	529	399
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7-day Yield — Subsidized
 30-day SEC Yield — Unsubsidized

Performance Disclosure
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Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 866-773-7233 or visit www.artisanfunds.com.

Category	NA	NA
Front-End Load %	NA	NA
Deferred Load %	NA	NA
Fund Expenses	0.95	0.95
Management Fees %	NA	NA
12bt Expense %	NA	NA
Net Expense Ratio %	0.98	0.98
Gross Expense Ratio %	0.98	0.98
Risk and Return Profile		

	3 Yr	5 Yr	10 Yr
Morningstar Rating™	2★	3★	3★
Morningstar Risk	Avg	+Avg	+Avg
Morningstar Return	-Avg	+Avg	+Avg

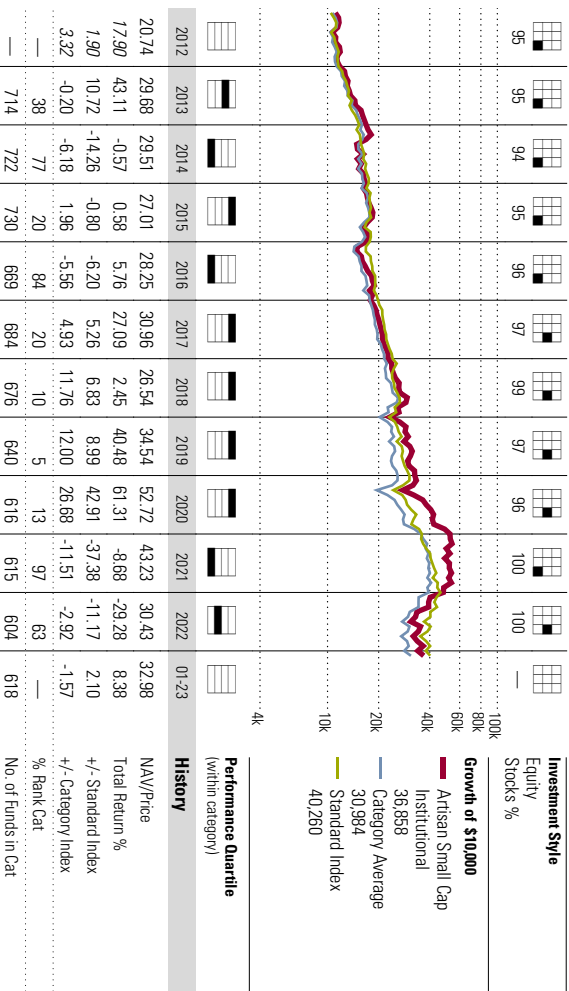
	3 Yr	5 Yr	10 Yr
Standard Deviation	28.17	25.46	20.65
Mean	3.37	9.07	11.34
Sharpe Ratio	0.22	0.41	0.59

MPI Statistics	Standard Index	Best Fit Index
Alpha	-5.40	-2.74
Beta	1.08	1.06
R-Squared	67.95	91.48
12-Month Yield	—	-2.57%
Potential Cap Gains Exp	—	-2.57%

Operations
 Family: Artisan Partners Funds
 Manager: Multiple
 Tenure: 18.4 Years
 Objective: Small Company

Base Currency: USD
 Ticker: APHSX
 ISIN: US04314H7585
 Minimum Initial Purchase: \$1 mil

Purchase Constraints: A
 Incept: 05-07-2012
 Type: MF
 Total Assets: \$1,868.28 mil



Portfolio Analysis 12-31-2022

Asset Allocation %	Net %	Long %	Short %
Cash	0.03	0.03	0.00
US Stocks	94.14	94.14	0.00
Non-US Stocks	5.84	5.84	0.00
Bonds	0.00	0.00	0.00
Other/Not Cstfd	0.00	0.00	0.00
Total	100.00	100.00	0.00

Equity Style

Value	Brand	Geom	Port	Rel	Rel
Avg	Index	Cat	Avg	Index	Cat
P/E Ratio TTM	27.0	1.33	1.28		
P/C Ratio TTM	34.3	2.27	2.03		
P/B Ratio TTM	5.4	1.44	1.52		
Geo Avg Mkt Cap	6295	0.04	1.39		

Fixed-Income Style

Value	Brand	Geom	Port	Rel	Rel
Avg Eff Maturity	Avg Eff Duration	Avg Wtd Coupon	Avg Wtd Price	High	Med
—	—	—	—	—	—

Credit Quality Breakdown

AAA	AA	A	BBB	BB	B	Below B	Bond %
—	—	—	—	—	—	—	—

Regional Exposure

Region	Stocks %	Rel Std Index
Americas	94.2	0.95
Greater Europe	0.5	0.51
Greater Asia	5.3	139.24

Share Cng Holdings:

Share Cng	Share Amount	Holdings %	Net Assets %
09-2022	58 Total Stocks, 34% Turnover Ratio	34%	34%
3 mil	Halozyme Therapeutics Inc	9.86	9.86
2 mil	Lattice Semiconductor Corp	6.45	6.45
295,378	Valmont Industries Inc	5.28	5.28
252,838	argenx SE ADR	5.17	5.17
703,479	Ascendis Pharma A/S ADR	4.64	4.64
390,643	ShookWave Medical Inc	4.23	4.23
971,066	Blackline Inc	3.33	3.33
176,197	Monolithic Power Systems Inc	3.37	3.37
413,951	Novanta Inc	3.04	3.04
387,865	Wingstop Inc	2.88	2.88
2 mil	Veracyte Inc	2.68	2.68
539,379	Workiva Inc Class A	2.45	2.45
128,323	Tyler Technologies Inc	2.23	2.23
637,961	Guidewire Software Inc	2.15	2.15
438,085	Papa John's International Inc	1.95	1.95

Sector Weightings

Sector	Stocks %	Rel Std Index
Cyclical	13.5	0.45
Basic Materials	0.0	0.00
Consumer Cyclical	9.7	0.94
Financial Services	3.8	0.27
Real Estate	0.0	0.00
Sensitive	46.6	1.03
Communication Services	0.0	0.00
Energy	0.0	0.00
Industrials	7.1	0.81
Technology	39.5	1.66
Defensive	39.9	1.61
Consumer Defensive	2.5	0.35
Healthcare	37.4	2.54
Utilities	0.0	0.00

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Dodge & Cox International Stock X (USD)

Morningstar Analyst Rating™ Overall **Morningstar Rating™** **Standard Index** **Category Index** **Morningstar Cat**
Gold **☆☆☆☆** **☆☆☆☆** **☆☆☆☆** **☆☆☆☆** **☆☆☆☆**
 06-10-2022 327 US Fund Foreign Large USA NR USD MSCI ACWI EX USA Value NR USD MSCI ACWI EX US Fund Foreign Large

Performance 01-31-2023					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2021	7.16	4.66	-3.33	2.40	11.03
2022	-0.59	-9.47	-10.67	16.03	-6.72
2023	—	—	—	—	8.54

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	—	—	—	—	7.50
Std 12-31-2022	—	—	—	—	-0.96
Total Return	-1.71	6.48	1.67	5.17	7.50
+/- Std Index	4.01	2.83	0.31	0.97	—
+/- Cat Index	0.65	2.33	1.38	2.13	—
% Rank Cat	45	24	35	11	—
No. in Cat	365	327	306	180	—

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.

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Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-621-3979 or visit www.dodgeandcox.com

Fees and Expenses

Sales Charges
Front-End Load % **NA**
Deferred Load % **NA**

Fund Expenses

Management Fees % 0.55
 12B1 Expense % NA
Net Expense Ratio % **0.52**
Gross Expense Ratio % **0.57**
Risk and Return Profile

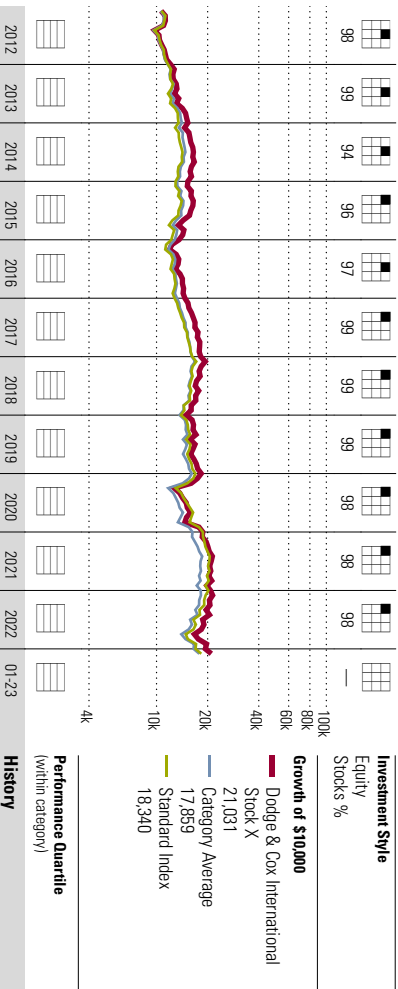
	3 Yr	5 Yr	10 Yr
Morningstar Rating™	327 funds	306 funds	180 funds
Morningstar Risk	3★	3★	4★
Morningstar Return	+Avg	+Avg	+Avg

	3 Yr	5 Yr	10 Yr
Standard Deviation	24.49	21.41	17.82
Mean	6.48	1.67	5.17
Sharpe Ratio	0.34	0.12	0.32

MPI Statistics	Standard Index	Best Fit Index
Alpha	2.96	—
Beta	1.16	—
R-Squared	89.44	—

	12-Month Yield	Potential Cap Gains Exp
	—	—

Operations
 Family: Dodge & Cox
 Manager: Multiple
 Tenure: 19.1 Years
 Objective: Foreign Stock
 Base Currency: USD



Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	01-23
NAV/Price	—	—	—	—	—	—	—	—	—	—	—	43.11
Total Return %	21.03	26.31	0.08	-11.35	8.26	23.94	-17.98	22.78	2.10	11.03	-6.72	8.54
+/- Standard Index	4.20	11.03	3.94	-5.69	3.77	-3.25	-3.79	1.27	-8.55	3.20	9.29	0.43
+/- Category Index	4.06	11.27	5.18	-1.29	-0.66	1.28	-4.01	7.06	2.87	0.57	1.87	0.77
% Rank Cat	—	—	—	—	—	—	—	—	—	—	—	—
No. of Funds in Cat	—	—	—	—	—	—	—	—	—	—	—	380

Portfolio Analysis 12-31-2022

Asset Allocation %	Net %	Long %	Short %
Cash	1.67	1.73	0.06
US Stocks	5.73	5.80	0.07
Non-US Stocks	92.60	92.60	0.00
Bonds	0.00	0.00	0.00
Other/Not Cstfd	0.00	0.00	0.00
Total	100.00	100.13	0.13

Equity Style	Portfolio Statistics	Port	Rel Index	Rel Cat
Value	P/E Ratio TTM	9.9	0.79	1.07
Brand	P/C Ratio TTM	6.7	0.74	1.09
Green	P/B Ratio TTM	1.1	0.69	1.00
Large	Geo Avg Mkt Cap	46775	1.08	1.43
Mid				
Small				

Fixed-Income Style	Ang Eff Maturity	Ang Eff Duration	Ang Wtd Coupon	Ang Wtd Price
Ltd	—	—	—	—
Med	—	—	—	—
Ext	—	—	—	—
High	—	—	—	—
Med	—	—	—	—
Low	—	—	—	—

Credit Quality Breakdown	Bond %
AAA	—
AA	—
AA-	—
A	—
BBB	—
BB	—
B	—
Below B	—
NR	—

Regional Exposure	Stocks %	Rel Std Index
Americas	16.5	1.52
Greater Europe	58.2	1.30
Greater Asia	25.3	0.57

Sector Weightings	Stocks %	Rel Std Index
Cyclical	49.2	1.14
Basic Materials	11.4	1.33
Consumer Cyclical	8.0	0.71
Financial Services	27.6	1.32
Real Estate	2.1	0.89
Sensitive	21.3	0.76
Communication Services	7.3	1.13
Energy	7.9	1.36
Industrials	6.6	0.55
Technology	5.5	0.47
Defensive	23.5	1.13
Consumer Defensive	5.8	0.70
Healthcare	17.6	1.85
Utilities	0.1	0.03

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Incept: 05-02-2022
 Type: M/F
 Total Assets: \$41,276.99 mil

Invesco Global Opportunities R6 (USD)

Morningstar Analyst Rating™ Neutral
Overall Morningstar Rating™ Standard Index
Category Index MSCI ACWI NR
Morningstar Cat US Fund Global
Small/Mid Stock 130 US Fund Global
USD MSCI ACWI SMID
NR USD US Fund Global
Small/Mid Stock

Performance 01-31-2023					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2021	0.92	4.74	-4.00	-0.99	0.47
2022	-20.30	-25.18	-9.76	8.91	-41.39
2023	—	—	—	—	9.89

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-24.50	-2.28	-2.89	9.36	8.96
Std 12-31-2022	-41.39	—	-2.74	8.80	8.09
Total Return	-24.50	-2.28	-2.89	9.36	8.96

+/- Std Index	-16.50	-9.11	-8.42	1.12	—
+/- Cat Index	-19.30	-8.86	-7.07	1.52	—
% Rank Cat	97	91	92	16	—
No. in Cat	158	130	110	71	—

7-day Yield 02-07-23	Subsidized	Unsubsidized
30-day SEC Yield	0.00	—

Performance Disclosure
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Fees and Expenses

Sales Charges	
Front-End Load %	NA
Deferred Load %	NA

Fund Expenses

Management Fees %	0.65
12b1 Expense %	NA
Net Expense Ratio %	0.68
Gross Expense Ratio %	0.68

Risk and Return Profile

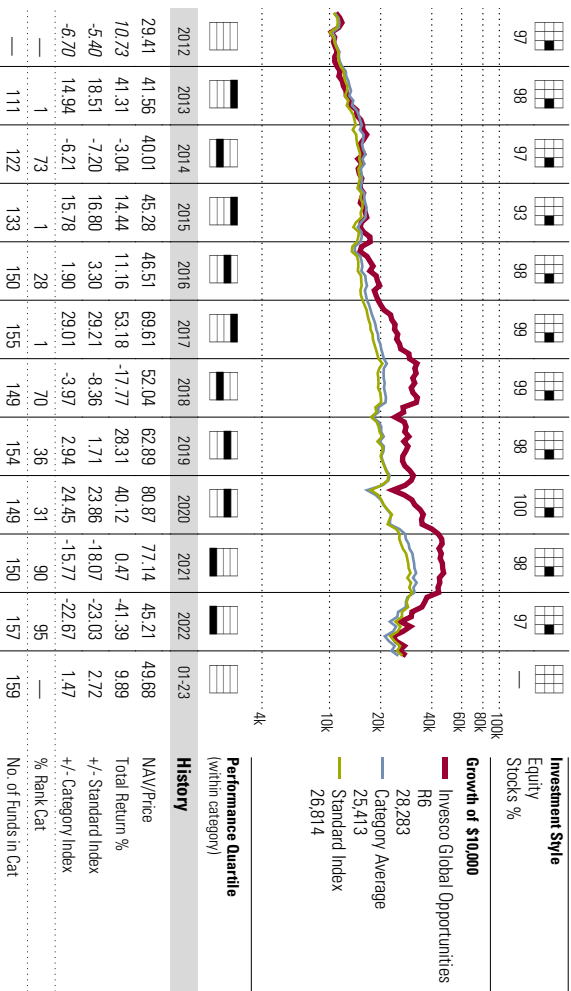
	3 Yr	5 Yr	10 Yr
Morningstar Rating™	1★	1★	3★
Morningstar Risk	+Avg	+Avg	+Avg
Morningstar Return	Low	Low	+Avg

	3 Yr	5 Yr	10 Yr
Standard Deviation	29.50	26.49	22.12
Mean	-2.28	-2.89	9.36
Shapero Ratio	0.04	-0.03	0.48

MPT Statistics	Standard Index	Best Fit Index Morningstar US Mid
Alpha	-9.15	-10.79
Beta	1.31	1.14
R-Squared	83.13	90.46
12-Month Yield	—	—
Potential Cap Gains Exp	-13.29%	—

Operations

Family:	Invesco
Manager:	Multiple
Tenure:	27.3 Years
Objective:	World Stock



Portfolio Analysis 12-31-2022				Net %	Long %	Short %	Share Clng	Share Holdings:	93 Total Stocks, .39 Total Fixed-Income, 11-2022	Net Assets %
Asset Allocation %				2.78	2.78	0.00	Amount	9% Turnover Ratio		
Cash				40.98	40.98	0.00	4 mil	Advanced Micro Devices Inc	6.19	
US Stocks				56.24	56.24	0.00	1 mil	PTC Inc	3.44	
Non-US Stocks				0.00	0.00	0.00	70 mil	Aston Martin Lagon	3.13	
Bonds				0.00	0.00	0.00	4 mil	Aixtron SE	2.76	
Other/Not Clsfd				0.00	0.00	0.00	2 mil	Brunello Cucinelli SPA	2.66	
Total				100.00	100.00	0.00	550,000	Shift Inc	2.34	

Value	Brand	Geom	Port	Rel	Rel	
Large	Mid	Small	Avg	Index	Cat	
█	█	█	P/E Ratio TTM	265	1.63	2.03
█	█	█	P/C Ratio TTM	20.1	1.66	1.94
█	█	█	P/B Ratio TTM	3.0	1.22	1.72
█	█	█	Geo Avg Mkt Cap \$mil	4102	0.04	0.79

Fixed-Income Style			Avg Eff Maturity	Avg Eff Duration	Avg Wtd Coupon	Avg Wtd Price
Lat	Med	Ext	High	Med	Low	—
█	█	█	AAA	AAA	AAA	—
█	█	█	AA	AA	AA	—
█	█	█	A	A	A	—
█	█	█	BBB	BBB	BBB	—
█	█	█	BB	BB	BB	—
█	█	█	B	B	B	—
█	█	█	Below B	Below B	Below B	—
█	█	█	NR	NR	NR	—

Credit Quality Breakdown

AAA	AA	A	BBB	BB	B	Below B	NR
—	—	—	—	—	—	—	—

Regional Exposure	Stocks %	Rel Std Index
Americas	40.9	0.64
Greater Europe	43.9	2.37
Greater Asia	15.2	0.85

Base Currency:	USD	Purchase Constraints:	A
Ticker:	OGIX	Incept:	01-27-2012
ISIN:	US00900W7535	Type:	MF
Minimum Initial Purchase:	\$1 mil	Total Assets:	\$4,664.76 mil

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JPMorgan Mid Cap Growth R6 (USD)

Morningstar Analyst Rating™ Overall Morningstar Rating™ **Standard Index** **Category Index** **Morningstar Cat**
Bronze **★★★★★** S&P 500 TR USD **Russell Mid Cap** **US Fund Mid-Cap**
 08-12-2022 524 US Fund Mid-Cap Growth **Growth TR USD** **Growth**

Performance 01-31-2023					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2021	1.34	7.25	-1.50	3.66	10.99
2022	-11.75	-20.60	-1.70	6.05	-26.96
2023	—	—	—	—	7.81

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-9.52	8.11	10.21	13.17	13.73
Std 12-31-2022	-26.96	—	9.87	13.04	13.08
Total Return	-9.52	8.11	10.21	13.17	13.73
+/- Std Index	-1.31	-1.77	0.67	0.49	—
+/- Cat Index	-1.00	1.66	1.95	1.50	—
% Rank Cat	48	34	14	10	—
No. in Cat	576	524	492	383	—

7-day Yield — Subsidized
 30-day SEC Yield — Unsubsidized

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 future 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.

Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-480-4111 or visit www.jpmorganfunds.com.

Fees and Expenses

Sales Charges
Front-End Load % NA
Deferred Load % NA

Fund Expenses

Management Fees % 0.65
 12B1 Expense % NA
Net Expense Ratio % 0.70
Gross Expense Ratio % 0.75
Risk and Return Profile

	3 Yr	5 Yr	10 Yr
Morningstar Rating™	524 funds	492 funds	383 funds
Morningstar Risk	4★	4★	5★
Morningstar Return	-Avg	Avg	High

	3 Yr	5 Yr	10 Yr
Standard Deviation	24.44	21.75	17.71
Mean	8.11	10.21	13.17
Sharpe Ratio	0.40	0.49	0.74

MPI Statistics	Standard Index	Best Fit Index
Alpha	-1.41	Russell Mid Cap Growth TR USD 1.69
Beta	1.04	0.96
R-Squared	83.04	98.24

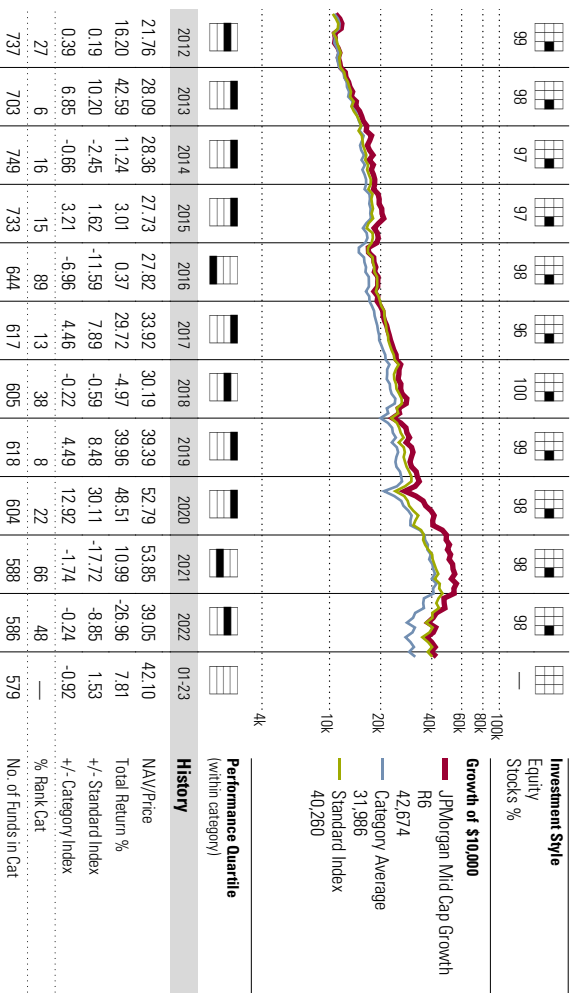
12-Month Yield —
 Potential Cap Gains Exp 4.61%

Operations

Family: JPMorgan
 Manager: Multiple
 Tenure: 18.4 Years
 Objective: Growth

Base Currency: USD
 Ticker: JMGGMX
 SIN: US4812C22886
 Minimum Initial Purchase: \$15 mil

Purchase Constraints: A
 Incept: 11-01-2011
 Type: MF
 Total Assets: \$8,488.65 mil



Portfolio Analysis 12-31-2022		
Asset Allocation %	Net %	Long %
Cash	2.50	2.50
US Stocks	97.05	97.05
Non-US Stocks	0.46	0.46
Bonds	0.00	0.00
Other/Not Cstfd	0.00	0.00
Total	100.00	100.00

Equity Style		Portfolio Statistics	
Value	Brand Growth	Avg Index	Rel Cat
Large	High	P/E Ratio TTM	29.4
Mid	Med	P/C Ratio TTM	17.5
Small	Low	P/B Ratio TTM	4.4
		Geo Avg Mkt Cap	20883
		Geo Avg Mkt Cap \$mil	0.12

Fixed-Income Style		
Ltd	Med	Ext
High	Med	Low

Credit Quality Breakdown

	Avg Eff Maturity	Avg Eff Duration	Avg Wtd Coupon	Avg Wtd Price	Bond %
AAA	—	—	—	—	—
AA	—	—	—	—	—
AAA	—	—	—	—	—
BBB	—	—	—	—	—
BB	—	—	—	—	—
B	—	—	—	—	—
Below B	—	—	—	—	—

Regional Exposure		Stocks %	Rel Std Index
Americas	99.5	1.01	
Greater Europe	0.5	0.43	
Greater Asia	0.0	0.00	

Share Cng	Share	Holdings	Net Assets
since	Amount	106 Total Stocks : 3 Total Fixed-Income, 45% Turnover Ratio	%
11-2022	189 mil	JPMorgan Prime Money Market Inst	2.50
⊖	2 mil	Horizon Therapeutics PLC	2.29
⊖	1 mil	Trane Technologies PLC Class A	2.23
⊕	1 mil	Quanta Services Inc	2.19
⊕	1 mil	DexCom Inc	2.07
⊕	1 mil	Agilent Technologies Inc	1.98
⊕	466,911	Synopsys Inc	1.97
⊕	931,161	Cheniere Energy Inc	1.85
⊕	2 mil	Copart Inc	1.83
⊕	1 mil	Hilton Worldwide Holdings Inc	1.79
⊕	794,646	Cadence Design Systems Inc	1.69
⊕	90,743	Chipotle Mexican Grill Inc	1.66
⊕	50,845	AutoZone Inc	1.66
⊕	81,394	Wetter-Toledo International Inc	1.56
⊖	504,990	LPL Financial Holdings Inc	1.44

Sector Weightings		Stocks %	Rel Std Index
🔄 Cyclical	25.1	0.84	
🏠 Basic Materials	0.6	0.25	
🔄 Consumer Cyclical	13.9	1.34	
🏢 Financial Services	10.5	0.75	
🏠 Real Estate	0.0	0.00	
🏠 Sensitive	47.5	1.05	
🏢 Communication Services	1.0	0.13	
⚡ Energy	4.3	0.86	
🏢 Industrials	17.9	2.04	
🏢 Technology	24.2	1.02	
🏠 Defensive	27.5	1.11	
🏠 Consumer Defensive	1.5	0.22	
🏠 Healthcare	26.0	1.76	
🏠 Utilities	0.0	0.00	

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MissionsSquare PLUS Fund

Fund profile & characteristics

Fund Net Assets	\$11.6 Billion
Inception Date	January 2, 1991
Credit Quality ¹	A3/AA-/AA
Effective Duration ²	3.07
Market/Book Value Ratio	93.04%
# of Holdings	over 4,000
# of Investment Managers	12
# of Synthetic & Separate Account GIC Issuers	8
# of Traditional GIC providers	9

Sector allocation

Agencies	0.81%
Asset-Backed	6.71%
Cash & Cash Equivalents	3.59%
Credits	25.44%
Maturing GICs	22.51%
Mortgage-Backed	21.34%
Municipals	0.63%
Other	0.11%
Treasuries	11.91%
Wrap Providers	6.96%

Structure

Tier 1 - Cash Buffer	5.6%
Tier 2 - Shorter Duration Focus	8.7%
Tier 3 - Laddered Maturity Focus	22.5%
Tier 4 - Total Return Focus	63.2%

Maturity allocation

0-1 Yrs	16.1%
1-2 Yrs	11.6%
2-3 Yrs	11.2%
3-4 Yrs	8.8%
4-5 Yrs	12.8%
5+ Yrs	39.6%

Portfolio management

Investment Adviser:

MissionSquare Investments

Portfolio Managers:

Karen Chiong-Wulff, CFA, CAIA, Managing Vice President,

Managed Fund Since 2007

Oliver Meng, CFA, CAIA, FRM, Director, Senior Fund Manager,

Managed Fund Since 2021

Wayne Wicker, CFA, Senior Vice President and Chief Investment

Officer, Managed Fund Since 2004

Investment objective

The PLUS Fund's investment objective is to seek to offer a competitive level of income consistent with providing capital preservation and meeting liquidity needs.

Fund goals

Key goals are to seek to preserve capital, by limiting risk of loss of principal and delivering stable returns, and to meet liquidity needs of those who invest in the PLUS Fund.

Investment strategy

MissionSquare Investments employs a structured, multi-product, multi-manager approach in managing the Fund. The Fund invests primarily in a diversified and tiered portfolio of stable value investment contracts and in fixed income securities, fixed income mutual funds, and fixed income commingled trust funds ("fixed income assets") that back certain stable value investment contracts. In addition, the Fund invests in money market mutual funds, as well as cash and cash equivalents. The Fund's portfolio may include different types of investments with a variety of negotiated terms and maturities and is diversified across sectors and issuers. The composition of the Fund's portfolio and its allocations to various stable value investments and fixed income investment sectors, across the fund's multiple tiers, is determined based on prevailing economic and capital market conditions, relative value analysis, liquidity needs, and other factors. The Fund invests in stable value investment contracts to seek to achieve, over the long run, returns higher than those of money market funds and short-term bank rates and relatively stable returns compared to short-to-intermediate term fixed income funds. The Fund generally will not track shorter-term interest rates as closely as money market mutual funds, because of its longer maturity, potential adverse market changes, and provisions in stable value contracts held by the Fund. In addition, while the Fund's returns are generally expected to follow interest rate trends over time, they typically will do so on a lagged basis.

Performance as of 12/31/2022

Share Class/CUSIP	Creditting Rate ³	Performance					Total estimated expenses
		YTD	1 Year	3 Year	5 Year	10 Year	
PLUS Fund (Gross) / -	2.64%	2.28%	2.28%	2.34%	2.47%	2.44%	0.21%
Morningstar US CIT Stable Value Peer Percentile ⁴	-	-	7%	7%	7%	1%	-
Morningstar US CIT Stable Value Number of Funds ⁴	-	-	16	16	16	16	-
R10 ⁵ /922081J709	2.32%	1.97%	1.97%	2.03%	2.16%	2.13%	0.52%
R9 ⁵ /922081J600	2.27%	1.92%	1.92%	1.98%	2.11%	2.08%	0.57%
R8 ⁵ /922081J501	2.22%	1.87%	1.87%	1.93%	2.06%	2.03%	0.62%
R7 ⁵ /922081J402	2.17%	1.82%	1.82%	1.88%	2.01%	1.98%	0.67%
R5 ⁵ /922081J303	2.06%	1.72%	1.72%	1.78%	1.91%	1.87%	0.77%
R3 ⁵ /922081J204	1.77%	1.43%	1.43%	1.48%	1.61%	1.58%	1.06%
R1 ⁵ /922081J105	1.50%	1.16%	1.16%	1.22%	1.35%	1.32%	1.32%
ICE BofA US 3 Month Treasury Bill Index	-	1.46%	1.46%	0.72%	1.26%	0.76%	-
Morningstar US CIT Stable Value Index ^{6,7}	-	1.88%	1.88%	1.96%	2.12%	1.96%	-
Standard Deviation (Gross)	-	-	0.06	0.06	0.07	0.06	-

PLUS Fund Gross total fee is 0.21% of assets. The fees included in the gross return consist of: (i) third-party manager fees of 0.08% of assets; (ii) third-party wrap provider fees of 0.11% of assets; (iii) third-party custody fees of 0.01% of assets; and (iv) third-party acquired fund fees of 0.01% of assets. The gross return is reported in a manner consistent with stable value industry reporting practices. Fees are subject to change due to fixed income manager, wrap, allocation, or other changes. Periods greater than one year represent annualized performance and past performance, as shown, is no guarantee of future results. Current performance may be lower or higher than the performance shown. For current performance, contact MissionSquare Retirement by calling 800-669-7400 or by visiting www.missionsq.org if you are a plan administration client, or www.investments.missionsq.org for institutions.

* The PLUS Fund includes additional share classes that are made available to clients based on asset size. For additional information, please contact the MissionSquare Investment Only team by calling us at 833-747-5601 or emailing us at io@missionsq.org.

When Funds are marketed to institutional clients, the Funds are offered by MissionSquare Investment Services, an SEC registered broker-dealer and FINRA member firm. MissionSquare Investment Services is a wholly-owned subsidiary of MissionSquare Retirement and is an affiliate of AdvantageTrust Company, LLC and MissionSquare Investments.

Fund information

The Fund is an investment option of VantageTrust, a group trust established and maintained by VantageTrust Company, LLC, a wholly owned subsidiary of MissionsSquare Retirement. VantageTrust provides for the commingling of assets of certain trusts and plans as described in its Declaration of Trust, and is only available for investment by such eligible trusts and plans. The Fund is not a mutual fund. Its units are not deposits of VantageTrust Company and are not insured by the Federal Deposit Insurance Corporation or any other agency. The Fund is a security that has not been registered under the Securities Act of 1933 and is exempt from investment company registration under the Investment Company Act of 1940. For additional information regarding the Fund, including a description of the principal risks, please consult the Funds Disclosure Memorandum, which is available when plan administration clients log in at www.missionsq.org, at www.investments.missionsq.org for institutions, or upon request by calling 800-669-7400.

Before investing in the Fund you should carefully consider your investment goals, tolerance for risk, investment time horizon, and personal circumstances. There is no guarantee that the Fund will meet its investment objective and you can lose money.

Investment risks

Stable Value Risk, Interest Rate Risk, Credit Risk, Stable Value Issuer Risk, Liquidity Risk, Reinvestment Risk, Call Risk, Mortgage-Backed Securities Risk, Asset-Backed Securities Risk, Securities Lending Risk, Derivative Instruments Risk, Large Investor Risk.

Restrictions related to employer withdrawals

In the event an Employer initiates withdrawal of all or part of its Plan's assets from the PLUS Fund, the payout of such assets may be deferred for a period of up to twelve months. In the case of a total withdrawal, participant transfers of PLUS Fund assets to other investment options will be restricted and participants will not be able to make additional investments in the PLUS Fund during this twelve-month period.

Transfer restrictions

Direct transfers from the PLUS Fund to competing funds are restricted. Competing funds include, but are not limited to, the following types of investment options: (1) cash management funds, money market mutual funds, bank collective short-term investment funds, bank accounts or certificates of deposit, stable value funds or substantially similar investment options that offer guarantees of principal or income, such as guaranteed annuity contracts or similar arrangements with financial institutions; (2) short-term bond funds that invest in fixed income securities and seek to maintain or have an average portfolio duration of less than two years; and (3) any investment option that invests 80% or more of its assets in (i) fixed income securities or funds with a duration of less than two years, or (ii) instruments that seek to provide capital preservation such as stable value funds, bank certificates of deposit or bank accounts, and cash or cash equivalents. To transfer money from the PLUS Fund to a competing fund, you must first transfer the amount to a non-competing fund for a period of at least 90 days. For example, if you want to transfer money from the PLUS Fund to a money market fund, you will first need to transfer the money to a non-competing fund and then, 90 days later or any time thereafter, transfer that amount of money to the money market fund.

Contact information

Investment Only

Andrew Whiting
202-731-2143
AWWhiting@missionsq.org

1. Credit Quality is calculated by MissionsSquare Investments (MSOI) and is only one factor that may be considered in assessing the risks of a fixed income portfolio, and it does not provide a complete picture of the credit risks or the dispersion of those risks within a portfolio. MSOI calculates the average based on the Moody's, S&P, Fitch (MS&S/P/F) or a combination of the three credit ratings of the underlying securities or wrap providers. Moody's, S&P, and Fitch are Nationally Recognized Statistical Rating Organizations and are not affiliated with MSOI.
2. Effective duration measures the interest rate sensitivity of the underlying portfolio. For the portion of the Fund invested in Maturing GICs, effective duration is not applicable and a duration of zero is assigned since their current values are not impacted by interest rate changes. If a duration based on weighted average maturity or cash flows is assigned to the Maturing GICs, the Fund's overall December 31, 2022 duration would be 3.73.
3. Annualized crediting rate for the last day of the month.
4. The Morningstar US CIT Stable Value universe represents the majority of the U.S. collective investment trust stable-value fund pooled universe and was named the Huebel Analytics Stable Value Pooled Fund Comparative Universe prior to January 31, 2021. The percentile ranks shown are derived by MissionsSquare Investments (MSOI) using gross returns from Morningstar. MSOI does not independently verify Morningstar data. Gross returns do not include plan administration fees, advisor expenses, or other stable value fund costs. Actual performance experienced by participants would be commensurately lower. The highest (or most favorable) percentile rank is 1 and the lowest (or least favorable) percentile rank is 100. The top-performing fund in a universe will always receive a rank of 1. Past performance is no guarantee of future results.
5. Performance information for this class prior to its inception date is the performance of the Fund adjusted to reflect the estimated fees and expenses of this class.
6. The Morningstar US CIT Stable Value Index measures the performance of approximately 75% of the U.S. collective investment trust stable-value fund pooled universe and is the stable value industry benchmark used by many institutional investors, consultants, advisers, and plan sponsors for monitoring stable value pooled funds.
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Parnassus Core Equity Institutional (USD)

Morningstar Analyst Rating™ Overall Morningstar Rating™ Standard Index Category Index Morningstar Cat
Gold **★★★★★** S&P 500 TR USD Russell 1000 TR US Fund Large Blend
 08-10-2022 1,227 US Fund Large Blend

Performance 01-31-2023					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2021	7.18	7.44	0.18	10.79	27.82
2022	-5.70	-15.29	-6.88	9.64	-18.45
2023	—	—	—	—	5.51

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-9.41	10.10	10.79	12.56	10.75
Std 12-31-2022	-18.45	—	10.66	12.64	10.46
Total Return	-9.41	10.10	10.79	12.56	10.75
+/- Std Index	-1.19	0.21	1.25	-0.12	—
+/- Cat Index	-0.86	0.44	1.41	0.05	—
% Rank Cat	79	27	4	17	—
No. in Cat	1354	1227	1119	822	—

7-day Yield — Subsidized
 30-day SEC Yield — Unsubsidized

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 future 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.

Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-999-3505 or visit www.parnassus.com.

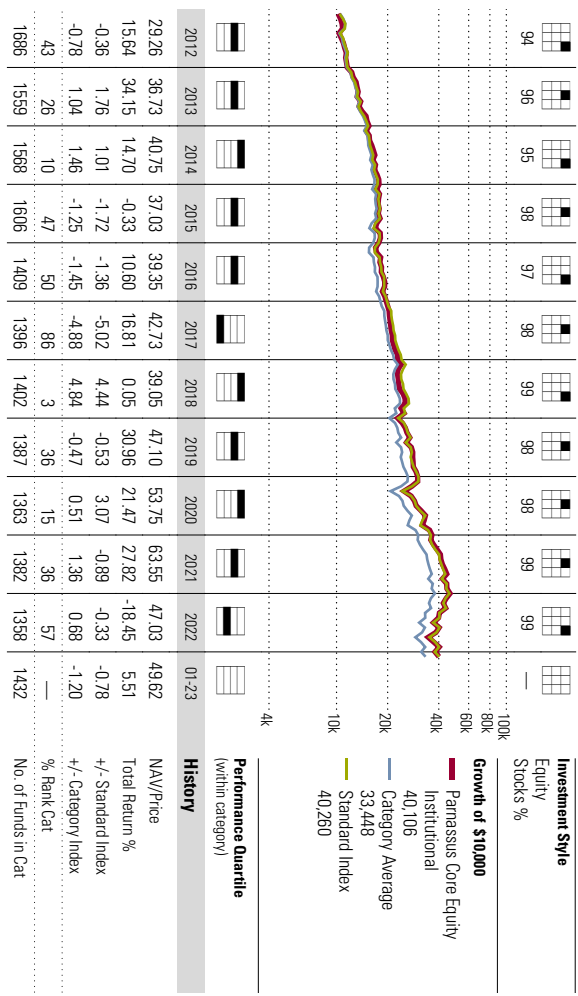
Fees and Expenses	
Sales Charges	NA
Front-End Load %	NA
Deferred Load %	NA
Fund Expenses	0.57
Management Fees %	NA
12B1 Expense %	NA
Net Expense Ratio %	0.61
Gross Expense Ratio %	0.61
Risk and Return Profile	

	3 Yr	5 Yr	10 Yr
Morningstar Rating™	4★	5★	5★
Morningstar Risk	-Avg	-Avg	-Avg
Morningstar Return	+Avg	High	+Avg
Standard Deviation	19.96	17.31	13.72
Mean	10.10	10.79	12.56
Sharpe Ratio	0.53	0.60	0.87
MPI Statistics	Standard Index	Best Fit Index	S&P 500 TR USD
Alpha	0.76	0.76	0.76
Beta	0.92	0.92	0.92
R-Squared	97.33	97.33	97.33
12-Month Yield	—	—	—
Potential Cap Gains Exp	—	—	37.47%

Operations
 Family: Parnassus
 Manager: Multiple
 Tenure: 21.8 Years
 Objective: Equity-Income
 Base Currency: USD

Ticker: PRLX
 ISIN: US7017694081
 Minimum Initial Purchase: \$100,000
 Min Auto Investment Plan: \$100,000
 Purchase Constraints: —

Incept: 04-28-2006
 Type: M/F
 Total Assets: \$25,557.64 mil



Portfolio Analysis 12-31-2022

Asset Allocation %	Net %	Long %	Short %	Share Clng since 11-2022	Share Holdings: Amount, 25% Turnover Ratio	Net Assets %
Cash	0.77	0.77	0.00	—	—	—
US Stocks	93.47	93.47	0.00	—	7 mil Microsoft Corp	6.69
Non-US Stocks	5.76	5.76	0.00	—	13 mil Alphabet Inc Class A	4.96
Bonds	0.00	0.00	0.00	—	2 mil Deere & Co	4.26
Other/Not Clsfd	0.00	0.00	0.00	—	10 mil Fiserv Inc	4.24
Total	100.00	100.00	0.00	—	3 mil Mastercard Inc Class A	3.65

Equity Style

Value	Brand	Score	Portfolio Statistics	Port Avg	Rel Index	Rel Cat
Large	Med	Ext	P/E Ratio TTM	23.3	1.14	1.27
Med	Med	Ext	P/C Ratio TTM	18.5	1.23	1.24
Small	Med	Ext	P/B Ratio TTM	4.1	1.10	1.00
			Geo Avg Mkt Cap \$mil	162918	0.95	0.77

Fixed-Income Style

Value	Brand	Score	Portfolio Statistics	Avg Eff Maturity	Avg Eff Duration	Avg Wtd Coupon	Avg Wtd Price
High	Med	Ext					
Med	Med	Ext					
Low	Med	Ext					

Credit Quality Breakdown —

	AAA	AA	A	BBB	BB	B	Below B	NR	Bond %
Regional Exposure	96.8	—	—	—	—	—	—	—	0.98
Americas	—	—	—	3.2	—	—	—	—	2.98
Greater Europe	—	—	—	—	—	—	—	—	0.00
Greater Asia	—	—	—	—	—	—	—	—	0.00

Sector Weightings

	Cyclical	Defensive	Utilities	Stocks %	Rel Std Index
Basic Materials	4.9	—	—	30.9	1.04
Consumer Cyclical	5.3	—	—	4.9	1.94
Financial Services	19.3	—	—	5.3	0.51
Real Estate	1.4	—	—	19.3	1.38
Sensitive	47.5	—	—	1.4	0.49
Communication Services	7.8	—	—	7.8	1.05
Energy	0.0	—	—	0.0	1.00
Industrials	12.1	—	—	0.0	0.00
Technology	27.6	—	—	12.1	1.38
Consumer Defensive	10.0	—	—	27.6	1.16
Healthcare	11.6	—	—	21.6	0.87
Utilities	0.0	—	—	10.0	1.40

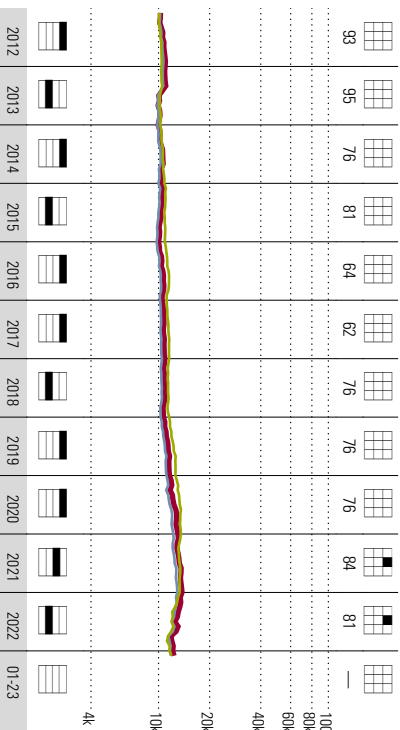
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PIMCO Real Return Instl (USD)

Morningstar Analyst Rating™ Overall Morningstar Rating™ Standard Index
Silver 12-19-2022 **★★★★** 198 US Fund Inflation-Protected Bond
Category Index Morningstar Cat
 Bloomberg US Treasury US TIPS Protected Bond
 Agg Bond TR USD TR USD

Performance 01-31-2023					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2021	-1.34	3.22	1.59	2.14	5.67
2022	-3.03	-6.42	-5.42	2.69	-11.86
2023	—	—	—	—	1.77



Investment Style	
Fixed-Income	Bond %
Growth of \$10,000	
—	PIMCO Real Return Instl
—	Category Average
—	Standard Index
—	11,932

Trailing Returns	
1 Yr	3 Yr
5 Yr	10 Yr
Incept	

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.

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Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 888-877-4626 or visit www.pimco.com.

Fees and Expenses

Sales Charges
Front-End Load % NA
Deferred Load % NA

Fund Expenses
 Management Fees % 0.45
 12b1 Expense % NA

Net Expense Ratio % 0.47
Gross Expense Ratio % 0.47

Risk and Return Profile

	3 Yr	5 Yr	10 Yr
Morningstar Rating™	3★	3★	3★
Morningstar Risk	+Avg	+Avg	+Avg
Morningstar Return	Avg	+Avg	+Avg

	3 Yr	5 Yr	10 Yr
Standard Deviation	7.29	6.02	5.61
Mean	1.30	2.65	1.27
Shapera Ratio	0.08	0.23	0.10

MPT Statistics	Standard Index	Best Fit Index
Alpha	3.69	0.18
Beta	0.98	1.04
R-Squared	64.36	98.62
12-Month Yield	8.18%	-0.77%
Potential Cap Gains Exp		

	USD	Bloomberg US Treasury US TIPS TR USD
Alpha	3.69	0.18
Beta	0.98	1.04
R-Squared	64.36	98.62
12-Month Yield	8.18%	-0.77%
Potential Cap Gains Exp		

Operations

Family: PIMCO
Manager: Multiple
Tenure: 4.1 Years
Objective: Growth and Income

Portfolio Analysis 09-30-2022

Asset Allocation %	Net %	Long %	Short %
Cash	-19.24	19.33	38.56
US Stocks	0.00	0.00	0.00
Non-US Stocks	0.00	0.00	0.00
Bonds	98.39	168.50	70.11
Other/Not Cstfd	20.85	20.85	0.00
Total	100.00	208.67	108.67

Equity Style	Value	Brand	Growth	Portfolio Statistics	Pct	Rel Index	Rel Cat
Large				P/E Ratio TTM	—	—	—
Mid				P/C Ratio TTM	—	—	—
Small				P/B Ratio TTM	—	—	—
				Geo Avg Mkt Cap \$mil	—	—	—

Fixed-Income Style	Value	Brand	Growth	Portfolio Statistics	Pct	Rel Index	Rel Cat
High				Ang Eff Maturity	6.27	6.48	1.36
Med				Ang Eff Duration	6.48	6.48	1.36
Low				Ang Wtd Coupon	1.36	1.36	93.93
				Ang Wtd Price	93.93	93.93	93.93

Credit Quality Breakdown 09-30-2022

Credit Quality	Bond %
AAA	88.31
AA	6.26
A	1.43
BBB	1.21
BB	0.87
B	0.43
Below B	1.49
NR	0.00

Regional Exposure	Stocks %	Rel Std Index
Americas	—	—
Greater Europe	—	—
Greater Asia	—	—

Base Currency: USD
Ticker: PRRIX
SIN: US6933911041
Minimum Initial Purchase: \$1 mil

Share Cng

Share Cng since	Amount	Holdings: 0 Total Stocks: 758 Total Fixed-Income, 104% Turnover Ratio	Net Assets %
06-2022	12,663	10 Year Treasury Note Future Dec 22	-14.14
	8,252	5 Year Treasury Note Future Dec 22	8.84
	8,241	Euro Schatz Future Dec 22	-8.62
	626	Fin Fut 10Yr Jgb Use 12/13/22	-6.39
	538 mil	United States Treasury Notes 0.625%	5.29
	446 mil	United States Treasury Bonds 3.625%	4.83
	3,627	US Treasury Bond Future Dec 22	-4.58
	441 mil	United States Treasury Notes 0.5%	4.08
	467 mil	United States Treasury Notes 0.125%	4.06
	380 mil	United States Treasury Notes 0.75%	3.56
	385 mil	United States Treasury Bonds 1.375%	3.42
	1,651	2 Year Treasury Note Future Dec 22	-3.38
	339 mil	United States Treasury Notes 0.625%	3.07
	308 mil	United States Treasury Bonds 1.75%	3.04
	339 mil	TRS R SOPFRATEH/791282CCOM1 NYC	3.02

Sector Weightings

Sector	Weightings	Stocks %	Rel Std Index
Cyclical			
Basic Materials	—	—	—
Consumer Cyclical	—	—	—
Financial Services	—	—	—
Real Estate	—	—	—
Sensitive			
Communication Services	—	—	—
Energy	—	—	—
Industrials	—	—	—
Technology	—	—	—
Defensive			
Consumer Defensive	—	—	—
Healthcare	—	—	—
Utilities	—	—	—

Purchase Constraints: A
Incept: 01-29-1997
Type: MF
Total Assets: \$11,389.13 mil

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T. Rowe Price Lrg Cp Gr I (USD)

Morningstar Analyst Rating™ Overall Morningstar Rating™ Standard Index Category Index Morningstar Cat
Silver **★★★★** **S&P 500 TR USD** **Russell 1000** **US Fund Large Growth**
 08-12-2022 1,126 US Fund Large Growth Growth TR USD

Performance 01-31-2023					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2021	3.66	12.53	-0.50	6.14	23.18
2022	-13.25	-22.92	-2.89	-0.18	-35.18
2023	—	—	—	—	8.23
Trailing Returns					
	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-21.58	5.65	7.96	14.22	10.24
Std 12-31-2022	-35.18	—	8.35	13.85	9.87
Total Return	-21.58	5.65	7.96	14.22	10.24
+/- Std Index	-13.37	-4.23	-1.58	1.54	—
+/- Cat Index	-5.56	-4.24	-3.26	-0.32	—
% Rank Cat	84	70	63	11	—
No. in Cat	1236	1126	1051	803	—

	Subsidized	Unsubsidized
7-day Yield 02-07-23	0.00	—
30-day SEC 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.

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Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-638-5660 or visit www.troweprice.com.

Fees and Expenses

Sales Charges	
Front-End Load %	NA
Deferred Load %	NA

Fund Expenses	0.54
Management Fees %	NA
12B1 Expense %	NA
Net Expense Ratio %	0.55
Gross Expense Ratio %	0.55
Risk and Return Profile	

	3 Yr	5 Yr	10 Yr
Morningstar Rating™	2★	3★	4★
Morningstar Risk	Avg	Avg	+Avg
Morningstar Return	-Avg	Avg	+Avg

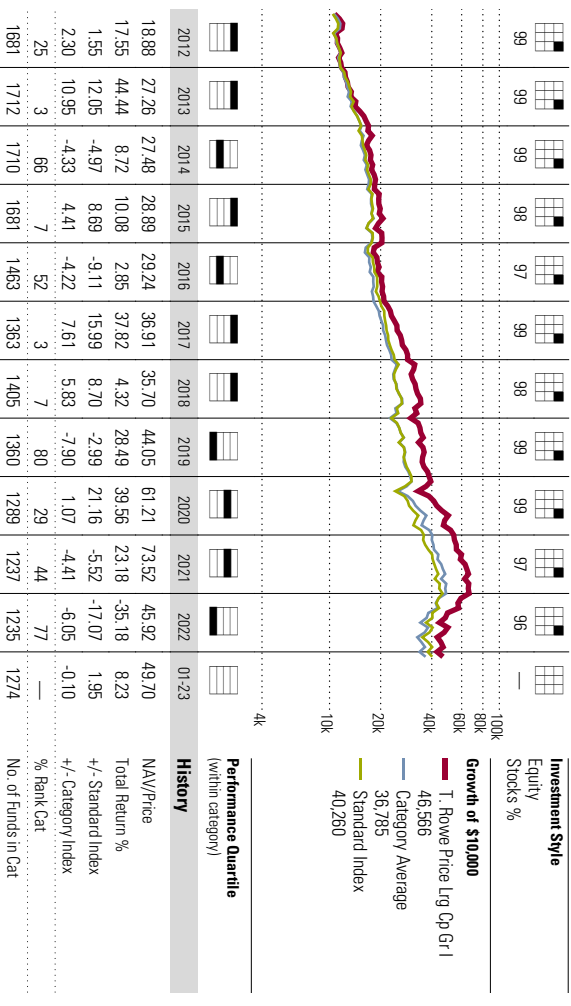
	3 Yr	5 Yr	10 Yr
Standard Deviation	24.12	20.71	17.09
Mean	5.65	7.96	14.22
Sharpe Ratio	0.31	0.41	0.82

MPI Statistics	Standard Index	Best Fit Index
Alpha	-4.02	-1.84
Beta	1.06	0.97
R-Squared	88.58	98.04
12-Month Yield	—	—
Potential Cap Gains Exp	—	59.77%

Operations
 Family: T. Rowe Price
 Manager: Taymour Tamaddon
 Tenure: 6.1 Years
 Objective: Growth

Base Currency: USD
 Ticker: TRLGX
 ISIN: US45775L4086
 Minimum Initial Purchase: \$500,000

Purchase Constraints: A
 Incept: 10-31-2001
 Type: MF
 Total Assets: \$16,041.63 mil



Portfolio Analysis 12-31-2022		Net %	Long %	Short %	NAV/Price	Total Return %	+/- Standard Index	+/- Category Index	% Rank Cat	No. of Funds in Cat
Asset Allocation %		3.52	3.52	0.00	49.70	8.23	1.95	-0.10	—	—
Cash		93.41	93.41	0.00	23.18	-35.18	-17.07	-6.05	77	—
US Stocks		3.07	3.07	0.00	2.16	-2.99	1.07	-4.41	44	—
Non-US Stocks		0.00	0.00	0.00	1.07	-7.90	1.07	-4.41	44	—
Bonds		0.00	0.00	0.00	80	29	29	44	77	—
Other/Not Cstfd		100.00	100.00	0.00	1237	1235	1237	1235	1274	1274
Total		100.00	100.00	0.00	1360	1289	1289	1237	1235	1274

Equity Style		Port	Rel	Rel	Share Clng	Share	Holdings:	Net Assets
Value	Brand	Avg	Index	Cat	since	Amount	54 Total Stocks, 0 Total Fixed-Income, 18% Turnover Ratio	%
Large	Mid	290	1.43	1.22	09-2022	1 mil	Cigna Corp	3.95
Mid	Mid	190	1.26	1.06		1 mil	Intuit Inc	3.55
Small	Mid	5.5	1.45	0.83		5 mil	Fiserv Inc	3.18
Small	Mid	230555	1.34	0.87		1 mil	Mastercard Inc Class A	2.78
Small	Mid	—	—	—		2 mil	Visa Inc Class A	2.50
Small	Mid	—	—	—		1 mil	Stryker Corp	2.42
Small	Mid	—	—	—		3 mil	Ross Stores Inc	2.34
Small	Mid	—	—	—		1 mil	Intuitive Surgical Inc	2.33
Small	Mid	—	—	—		542,082	ASML Holding NV ADR	2.07
Small	Mid	—	—	—		2 mil	NVIDIA Corp	1.92

Fixed-Income Style		Avg Eff Maturity	Avg Eff Duration	Avg Wtd Coupon	Avg Wtd Price	Bond %
High	High	—	—	—	—	—
Med	Med	—	—	—	—	—
Low	Low	—	—	—	—	—

Credit Quality Breakdown		Bond %
AAA	AAA	—
AA	AA	—
A	A	—
BBB	BBB	—
BB	BB	—
B	B	—
Below B	Below B	—
NR	NR	—

Regional Exposure		Stocks %	Rel Std Index
Americas	96.8	0.98	
Greater Europe	2.1	1.99	
Greater Asia	1.0	27.32	

Sector Weightings		Stocks %	Rel Std Index
Cyclical	20.4	0.68	
Basic Materials	0.7	0.27	
Consumer Cyclical	14.2	1.37	
Financial Services	5.5	0.39	
Real Estate	0.0	0.00	
Sensitive	55.3	1.22	
Communication Services	11.3	1.45	
Energy	0.0	0.00	
Industrials	2.8	0.32	
Technology	41.1	1.73	
Defensive	24.3	0.98	
Consumer Defensive	2.8	0.39	
Healthcare	21.6	1.46	
Utilities	0.0	0.00	

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Vanguard Institutional Index I (USD)

Morningstar Analyst Rating™ Overall Morningstar Rating™ Standard Index Category Index Morningstar Cat
 Gold★★★★ 1,227 US Fund Large Blend S&P 500 TR USD Russell 1000 TR US Fund Large Blend
 02-22-2022

Performance 01-31-2023					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2021	6.18	8.54	0.57	11.02	28.67
2022	-4.60	-16.11	-4.89	7.55	-18.14
2023	—	—	—	—	6.28
Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-8.25	9.86	9.51	12.65	10.03
Std 12-31-2022	-18.14	—	9.40	12.53	9.85
Total Return	-8.25	9.86	9.51	12.65	10.03
+/- Std Index	-0.03	-0.03	-0.03	-0.03	—
+/- Cat Index	0.30	0.20	0.13	0.14	—
% Rank Cat	56	33	24	11	—
No. in Cat	1354	1227	1119	822	—

7-day Yield — Subsidized
 30-day SEC Yield 02-07-23 1.58 1.58

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.

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Fees and Expenses

Sales Charges
Front-End Load % NA
Deferred Load % NA

Fund Expenses
 Management Fees % 0.03
 12b1 Expense % NA
Net Expense Ratio % 0.04
Gross Expense Ratio % 0.04

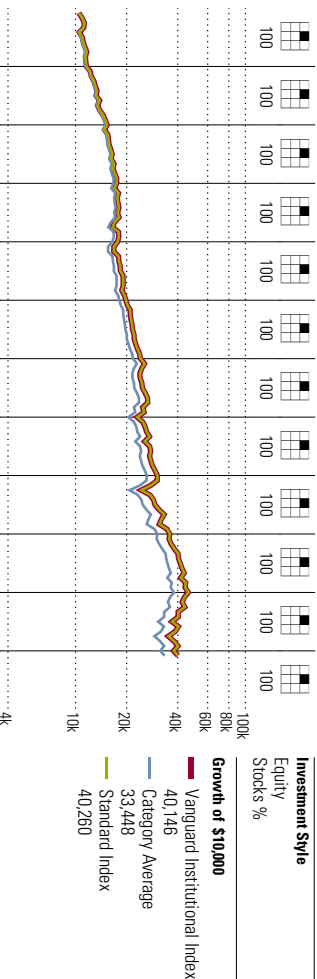
Risk and Return Profile

	3 Yr	5 Yr	10 Yr
Morningstar Rating™	4★	4★	4★
Morningstar Risk	Avg	Avg	Avg
Morningstar Return	+Avg	+Avg	+Avg
Standard Deviation	21.39	18.72	14.81
Mean	9.86	9.51	12.65
Sharpe Ratio	0.50	0.51	0.82

MPT Statistics	Standard Index	Best Fit Index
Alpha	-0.02	-0.02
Beta	1.00	1.00
R-Squared	100.00	100.00
12-Month Yield	1.61%	1.61%
Potential Cap Gains Exp	68.18%	68.18%

Operations

Family: Vanguard
 Manager: Multiple
 Tenure: 22.2 Years
 Objective: Growth and Income



Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	01-23
NAV/Price	130.52	169.28	188.67	186.62	203.83	243.46	227.55	290.23	331.47	405.79	321.63	341.83
Total Return %	15.98	32.35	13.65	1.37	11.93	21.79	-4.42	31.46	18.39	28.67	-18.14	6.28
+/- Standard Index	-0.02	-0.04	-0.04	-0.01	-0.03	-0.04	-0.04	-0.02	-0.01	-0.04	-0.03	0.00
+/- Category Index	-0.44	-0.76	0.41	0.45	-0.12	0.10	0.36	0.04	-2.57	2.21	0.99	-0.42
% Rank Cat	35	42	18	20	27	29	27	24	37	23	52	—
No. of Funds in Cat	1686	1559	1568	1606	1409	1396	1402	1387	1363	1382	1358	1432

Portfolio Analysis 01-31-2023

Asset Allocation %	Net %	Long %	Short %
Cash	0.39	0.39	0.00
US Stocks	98.51	98.51	0.00
Non-US Stocks	1.11	1.11	0.00
Bonds	0.00	0.00	0.00
Other/Not Cstfd	0.00	0.00	0.00
Total	100.00	100.00	0.00

Top Holdings 12-31-2022

Share Cng	Share	Holdings	Amount	503 Total Stocks: 0 Total Fixed-Income, 3% Turnover Ratio	Net Assets %
12-2022					
104 mil	104	Apple Inc	104 mil	6.02	
52 mil	52	Microsoft Corp	52 mil	5.54	
62 mil	62	Amazon.com Inc	62 mil	2.31	
13 mil	13	Berkshire Hathway Inc Class B	13 mil	1.73	
42 mil	42	Alphabet Inc Class A	42 mil	1.63	
7 mil	7	UnitedHealth Group Inc	7 mil	1.54	
37 mil	37	Alphabet Inc Class C	37 mil	1.46	
18 mil	18	Johnson & Johnson	18 mil	1.43	
29 mil	29	Exxon Mobil Corp	29 mil	1.41	
20 mil	20	JPMorgan Chase & Co	20 mil	1.22	
17 mil	17	NVIDIA Corp	17 mil	1.13	
17 mil	17	Procter & Gamble Co	17 mil	1.11	
11 mil	11	Visa Inc Class A	11 mil	1.05	
19 mil	19	Tesla Inc	19 mil	1.03	
7 mil	7	The Home Depot Inc	7 mil	1.00	

Fixed-Income Style

Value	Share	Gain/Loss	High	Med	Low
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—

Credit Quality Breakdown

AAA	AA	A	BBB	BB	B	Below B	NR
—	—	—	—	—	—	—	—

Regional Exposure

Americas	Greater Europe	Greater Asia
98.9	1.1	1.00
0.0	0.0	1.00

Sector Weightings

Cyclical	Stocks %	Rel Std Index
Basic Materials	2.5	1.00
Consumer Cyclical	10.4	1.00
Financial Services	14.0	1.00
Real Estate	2.9	1.00
Sensitive	45.4	1.00
Communication Services	7.8	1.00
Energy	5.1	1.00
Industrials	8.8	1.00
Technology	23.8	1.00
Defensive	24.8	1.00
Consumer Defensive	7.1	1.00
Healthcare	14.7	1.00
Utilities	2.9	1.00

Base Currency: USD
 Ticker: VNIIX
 ISIN: US9220401007
 Minimum Initial Purchase: \$5 mil
 Total Assets: \$238,371.73 mil

Purchase Constraints: —
 Incept: 07-31-1990
 Type: MIF

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Vanguard Mid Cap Index Admiral (USD)

Morningstar Analyst Rating™ Overall Morningstar Rating™ Standard Index Category Index Morningstar Cat
Gold **★★★★** S&P 500 TR USD Russell Mid Cap TR US Fund Mid-Cap Blend
 08-07-2022 381 US Fund Mid-Cap Blend USD

Performance 01-31-2023					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2021	7.18	7.58	0.00	7.97	24.51
2022	-6.32	-16.96	-4.14	9.02	-18.71
2023	—	—	—	—	7.95
Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-4.75	9.00	8.05	11.23	9.91
Std 12-31-2022	-18.71	—	7.32	11.10	9.55
Total Return	-4.75	9.00	8.05	11.23	9.91
+/- Std Index	3.46	-0.88	-1.49	-1.45	—
+/- Cat Index	-1.43	-0.02	0.03	0.12	—
% Rank Cat	83	64	31	15	—
No. in Cat	415	381	353	227	—

7-day Yield — Subsidized Unsubsidized
 30-day SEC Yield 02-06-23 1.53 1.53

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 future 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.

Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-662-7447 or visit www.vanguard.com.

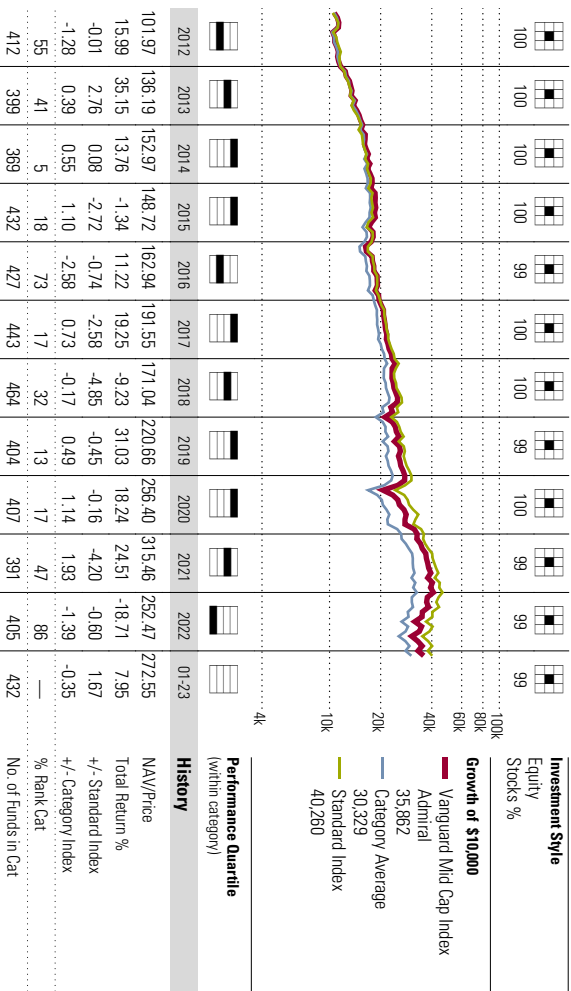
Sales Charges	NA
Front-End Load %	NA
Deferred Load %	NA
Fund Expenses	
Management Fees %	0.05
12b1 Expense %	NA
Net Expense Ratio %	0.05
Gross Expense Ratio %	0.05
Risk and Return Profile	
Morningstar Rating™	3★
Morningstar Risk	Avg
Morningstar Return	Avg

	3 Yr	5 Yr	10 Yr
381 funds	353 funds	227 funds	
Standard Deviation	23.96	20.85	16.36
Mean	9.00	8.05	11.23
Sharpe Ratio	0.44	0.41	0.68
MPT Statistics	Standard Index	Best Fit Index	Russell Mid Cap TR USD
Alpha	-1.10	0.06	0.06
Beta	1.08	0.98	0.98
R-Squared	93.89	99.82	99.82
12-Month Yield	1.47%	1.47%	1.47%
Potential Cap Gains Exp	36.84%	36.84%	36.84%

Operations
 Family: Vanguard
 Manager: Multiple
 Tenure: 24.8 Years
 Objective: Growth

Base Currency: USD
 Ticker: VIMAXX
 ISIN: US9229086452
 Minimum Initial Purchase: \$3,000

Purchase Constraints: —
 Incept: 11-12-2001
 Type: MF
 Total Assets: \$55,099.66 mil



Portfolio Analysis 01-31-2023

Asset Allocation %	Net %	Long %	Short %
Cash	1.05	1.05	0.00
US Stocks	97.53	97.53	0.00
Non-US Stocks	1.42	1.42	0.00
Bonds	0.00	0.00	0.00
Other/Not Cstfd	0.00	0.00	0.00
Total	100.00	100.00	0.00

Equity Style

Value	Brand	Geom	Port	Rel	Rel
Avg	Index	Cat	Avg	Index	Cat
P/E Ratio TTM	17.9	0.88	1.25	13 mi	Microdip Technology Inc
P/C Ratio TTM	13.8	0.91	1.24	4 mi	IQVIA Holdings Inc
P/B Ratio TTM	2.9	0.78	1.22	15 mi	Realty Income Corp
Geo Avg Mkt Cap \$mil	23966	0.14	2.49	6 mi	Hess Corp

Fixed-Income Style

Value	Brand	Geom	Port	Rel	Rel
Avg	Index	Cat	Avg	Index	Cat
Ang Eff Maturity	—	—	—	—	—
Ang Eff Duration	—	—	—	—	—
Ang Wtd Coupon	—	—	—	—	—
Ang Wtd Price	—	—	—	—	—

Credit Quality Breakdown

Credit	High	Med	Low	Bond %
AAA	—	—	—	—
AA	—	—	—	—
A	—	—	—	—
BBB	—	—	—	—
BB	—	—	—	—
B	—	—	—	—
Below B	—	—	—	—
NR	—	—	—	—

Regional Exposure

Region	Stocks %	Rel Std Index
Americas	99.1	1.00
Greater Europe	0.7	0.63
Greater Asia	0.2	5.55

Share Cng

Share Cng	Share	Holdings	Net Assets %
since 12-2022	Amount	349 Total Stocks: 0 Total Fixed-Income, 16% Turnover Ratio	%
⊕	6 mil	Cadence Design Systems Inc	0.79
⊕	14 mi	Amphenol Corp Class A	0.74
⊕	17 mi	Cortrava Inc	0.73
⊕	6 mi	Nicor Corp	0.68
⊕	13 mi	Centene Corp	0.68
⊕	4 mi	Motorola Solutions Inc	0.67
⊕	13 mi	Microdip Technology Inc	0.67
⊕	4 mi	IQVIA Holdings Inc	0.67
⊕	15 mi	Realty Income Corp	0.67
⊕	6 mi	Hess Corp	0.65
⊕	9 mi	DexCom Inc	0.65
⊕	15 mi	Devon Energy Corp	0.65
⊕	5 mi	Arthur J. Gallagher & Co	0.65
⊕	2 mi	MSD Inc	0.63
⊕	2 mi	Cintas Corp	0.60

Sector Weightings

Sector	Stocks %	Rel Std Index
Cyclical	37.3	1.25
Basic Materials	5.0	1.97
Consumer Cyclical	10.2	0.98
Financial Services	13.0	0.93
Real Estate	9.1	3.17
Sensitive	40.3	0.89
Communication Services	3.9	0.49
Energy	5.7	1.13
Industrials	13.4	1.53
Technology	17.3	0.73
Defensive	22.4	0.90
Consumer Defensive	3.9	0.55
Healthcare	11.8	0.80
Utilities	6.7	2.28

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Vanguard Small Cap Index Adm (USD)

Morningstar Analyst Rating™ Overall Morningstar Rating™ Standard Index
 **Silver**
 06-23-2022

Category Index S&P 500 TR USD
Morningstar Cat Russell 2000 TR
Investment Style US Fund Small Blend
Category Index US Fund Small Blend
Morningstar Cat US Fund Small Blend

Performance 01-31-2023					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2021	10.22	5.60	-2.62	3.87	17.73
2022	-5.74	-16.88	-2.61	7.97	-17.61
2023	—	—	—	—	10.13
Trailing Returns					
	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-1.47	9.10	7.40	10.49	9.06
Std 12-31-2022	-17.61	—	5.94	10.11	8.62
Total Return	-1.47	9.10	7.40	10.49	9.06
+/- Std Index	6.74	-0.78	-2.14	-2.19	—
+/- Cat Index	1.91	1.80	1.86	1.13	—
% Rank Cat	53	60	25	19	—
No. in Cat	613	588	543	364	—

7-day Yield	
Subsidized	—
Unsubsidized	1.43

30-day SEC Yield 02-06-23	
Subsidized	—
Unsubsidized	1.43

Performance Disclosure
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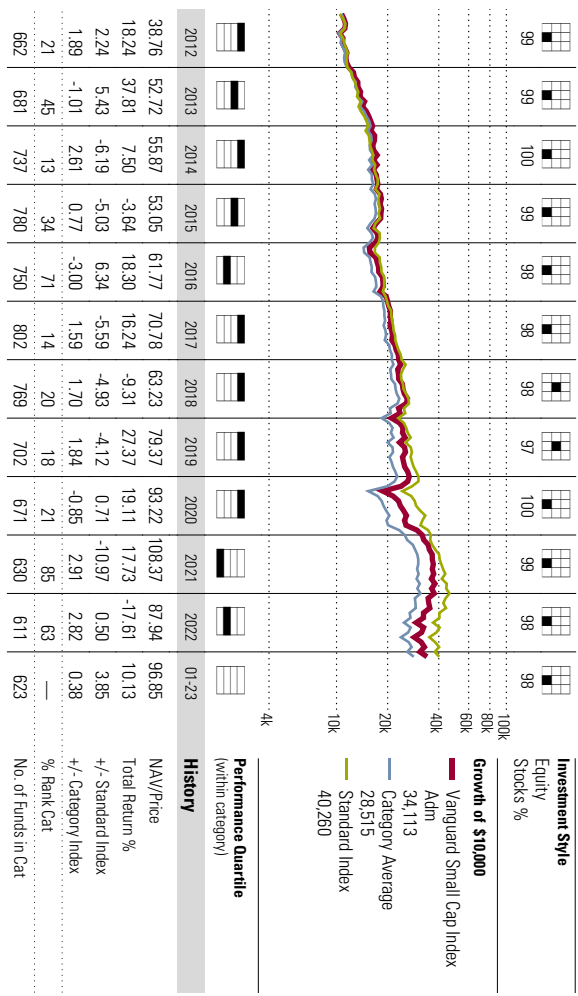
Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-662-7447 or visit www.vanguard.com.

Sales Charges	
Front-End Load %	NA
Deferred Load %	NA
Fund Expenses	
Management Fees %	0.04
12b1 Expense %	NA
Net Expense Ratio %	0.05
Gross Expense Ratio %	0.05
Risk and Return Profile	
Morningstar Rating™	3★
Morningstar Risk	Avg
Morningstar Return	Avg

Standard Deviation	
3 Yr	5.88 funds
5 Yr	5.43 funds
10 Yr	3.64 funds
Avg	3★
Avg	4★
Avg	4★
Avg	4★
Avg	4★
Avg	4★

MPT Statistics	
Alpha	-0.95
Beta	1.13
R-Squared	86.13
12-Month Yield	1.40%
Potential Cap Gains Exp	27.68%

Operations	
Family:	Vanguard
Manager:	Multiple
Tenure:	6.8 Years
Objective:	Small Company



Portfolio Analysis 01-31-2023	
Asset Allocation %	Net %
Cash	1.73
US Stocks	97.61
Non-US Stocks	0.65
Bonds	0.00
Other/Not Cstfd	0.00
Total	100.00

Equity Style	
Value	—
Brand	—
Growth	—
Large	—
Mid	—
Small	—
Geo Avg Mkt Cap	5310
Geo Avg Mkt Cap	0.03
Geo Avg Mkt Cap	1.28

Portfolio Statistics	
P/E Ratio TTM	13.3
P/C Ratio TTM	10.9
P/B Ratio TTM	2.3
Geo Avg Mkt Cap	5310
Geo Avg Mkt Cap	0.03
Geo Avg Mkt Cap	1.28

Sector Weightings	
Cyclical	40.3
Basic Materials	4.6
Consumer Cyclical	12.7
Financial Services	13.9
Real Estate	9.0
Sensitive	40.8
Communication Services	2.4
Energy	5.0
Industrials	18.4
Technology	15.0
Defensive	18.9
Consumer Defensive	4.1
Healthcare	11.9
Utilities	2.9

Credit Quality Breakdown	
AAA	—
AA	—
A	—
BBB	—
BB	—
B	—
Below B	—
NR	—

Regional Exposure	
Americas	99.6
Greater Europe	0.2
Greater Asia	0.3

Base Currency:	
Ticker:	VSMAX
ISIN:	US9229086866
Minimum Initial Purchase:	\$3,000

Purchase Constraints:	
Incept:	11-13-2000
Type:	MF
Total Assets:	\$46,401.66 mil

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Vanguard Target Retirement 2020 Fund (USD)

Morningstar Analyst Rating™ Overall Morningstar Rating™ Standard Index Category Index Morningstar Cat
Silver **★★★★** **US Fund Target-Retirement**
 02-24-2022 140 US Fund Target-Date **IGT Risk TR USD** Lifetime Mod 2020 **2020**
 2020 140 US Fund Target-Date **IGT Risk TR USD** TR USD

Performance 01-31-2023					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2021	1.28	4.20	-0.41	2.91	8.17
2022	-5.06	-9.20	-5.12	4.97	-14.15
2023	—	—	—	—	4.65
Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-7.35	2.80	3.65	6.02	5.78
Std 12-31-2022	-14.15	—	3.22	5.83	5.52
Total Return	-7.35	2.80	3.65	6.02	5.78
+/- Std Index	-0.77	-1.06	-0.63	-0.06	—
+/- Cat Index	1.51	0.43	0.03	0.63	—
% Rank Cat	52	54	49	27	—
No. in Cat	150	140	121	55	—

	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield 02-07-23	2.53	2.53

Performance Disclosure
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Fees and Expenses

Sales Charges	
Front-End Load %	NA
Deferred Load %	NA

Fund Expenses	
Management Fees %	0.00
12b1 Expense %	NA
Net Expense Ratio %	0.08
Gross Expense Ratio %	0.08

Risk and Return Profile

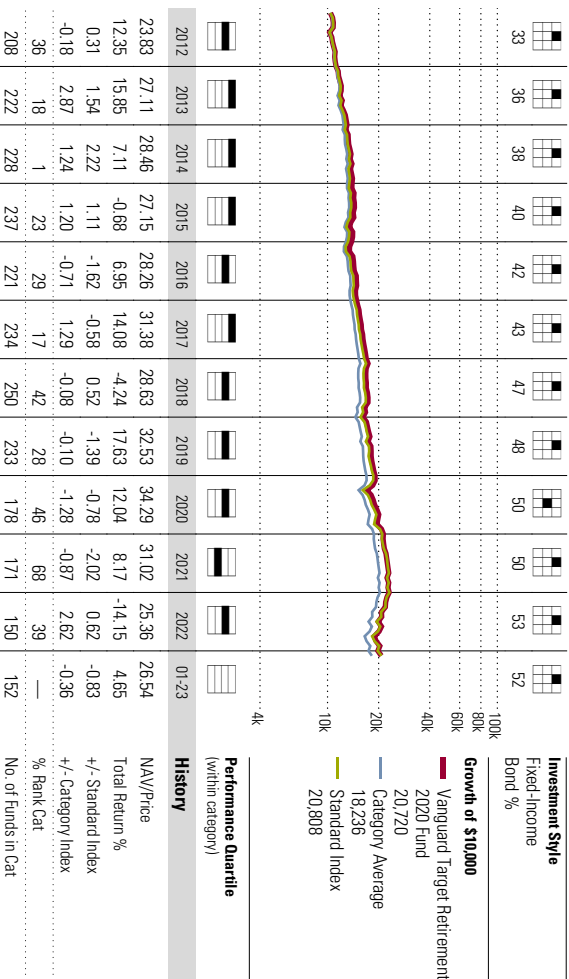
Morningstar Rating™	3★	3★	4★
Morningstar Risk	Avg	Avg	Avg
Morningstar Return	Avg	Avg	+Avg

Standard Deviation	3 Yr 11.77	5 Yr 10.09	10 Yr 8.24
Mean	2.80	3.65	6.02
Sharpe Ratio	0.21	0.27	0.65

MPT Statistics	Standard Index	Best Fit Index Morningstar Intl
Alpha	-0.68	0.18
Beta	0.83	0.80
R-Squared	98.84	98.96

12-Month Yield	2.41%
Potential Cap Gains Exp	7.18%

Operations	
Family:	Vanguard
Manager:	Multiple
Tenure:	10.0 Years
Objective:	Asset Allocation



Portfolio Analysis 01-31-2023												
Asset Allocation %			Net %	Long %	Short %	Share Clng						Share Holdings
Cash	3.94	6.42	2.47	15.6	1.04	1.00	12-2022	Amount	10,638	Total Stocks	17,466	Total Fixed-Income, %
US Stocks	25.40	25.40	0.00	11.7	1.02	1.00	1,364 mil	Vanguard Total Bond Market II Idx	14%	Turnover Ratio	—	31.64
Non-US Stocks	17.08	17.08	0.00	57 mil	Vanguard Total Bond Mkt Idx Instl	—	25.78					
Bonds	53.54	53.58	0.04	400 mil	Vanguard Total Intl Stock Index Inv	—	17.39					
Other/Not Clsfd	0.03	0.03	0.00	218 mil	Vanguard Total Intl Bnd II Idx Intl	—	13.68					
Total	100.00	102.51	2.51	186 mil	Vanguard Shrt-Term Intl-Prot Sec I	—	10.55					

Equity Style	Value	Small	Mid	Large	Port	Rel	Index	Rel
	High	Med	Ext	High	15.6	1.04	1.00	1.00
	Low	Med	Small	Low	11.7	1.02	1.00	1.00
					2.3	1.08	0.98	0.98
					60514	1.38	0.95	0.95

Fixed-Income Style

	Low	Med	Ext	High	Avg Eff Maturity	7.67
					Avg Eff Duration	5.96
					Avg Wtd Coupon	2.14
					Avg Wtd Price	92.76

Credit Quality Breakdown 12-31-2022

AAA	64.59
AA	7.96
A	14.23
BBB	12.55
BB	0.00
B	0.00
Below B	0.37
NR	0.31

Regional Exposure	Stocks %	Rel Std Index
Americas	63.8	1.08
Greater Europe	17.7	0.97
Greater Asia	18.5	0.93

Base Currency:	USD
Ticker:	VTVWXX
SIN:	US92202E8057
Minimum Initial Purchase:	\$1,000

Purchase Constraints:	—
Incept:	06-07-2006
Type:	MF
Total Assets:	\$41,566.87 mil

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Vanguard Target Retirement 2025 Fund (USD)

Morningstar Analyst Rating™
Silver
 02-24-2022

Overall Morningstar Rating™
★★★★
 195 US Fund Target-Date 2025

Standard Index
 Morningstar Mod
 Tgt Risk TR USD

Category Index
 Morningstar
 Lifetime Mod 2025 TR USD

Morningstar Cat
 US Fund Target-Date 2025

Performance 01-31-2023					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2021	1.86	4.79	-0.65	3.55	9.80
2022	-5.51	-10.72	-5.59	6.03	-15.55
2023	—	—	—	—	5.40

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-7.77	3.45	4.05	6.65	6.39
Std 12-31-2022	-15.55	—	3.58	6.43	6.13
Total Return	-7.77	3.45	4.05	6.65	6.39
+/- Std Index	-1.20	-0.41	-0.24	0.57	—
+/- Cat Index	1.32	0.76	0.25	0.65	—
% Rank Cat	54	48	37	19	—
No. in Cat	219	195	170	102	—

7-day Yield	Subsidized	Unsubsidized
30-day SEC Yield 02-07-23	2.20	2.20

Performance Disclosure
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Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-662-7447 or visit www.vanguard.com.

Sales Charges	NA
Front-End Load %	NA
Deferred Load %	NA

Fund Expenses	0.00
Management Fees %	0.00
12b1 Expense %	NA
Net Expense Ratio %	0.08
Gross Expense Ratio %	0.08

Risk and Return Profile	3 Yr	5 Yr	10 Yr
Morningstar Rating™	3★	3★	4★
Morningstar Risk	Avg	Avg	Avg
Morningstar Return	Avg	Avg	+Avg

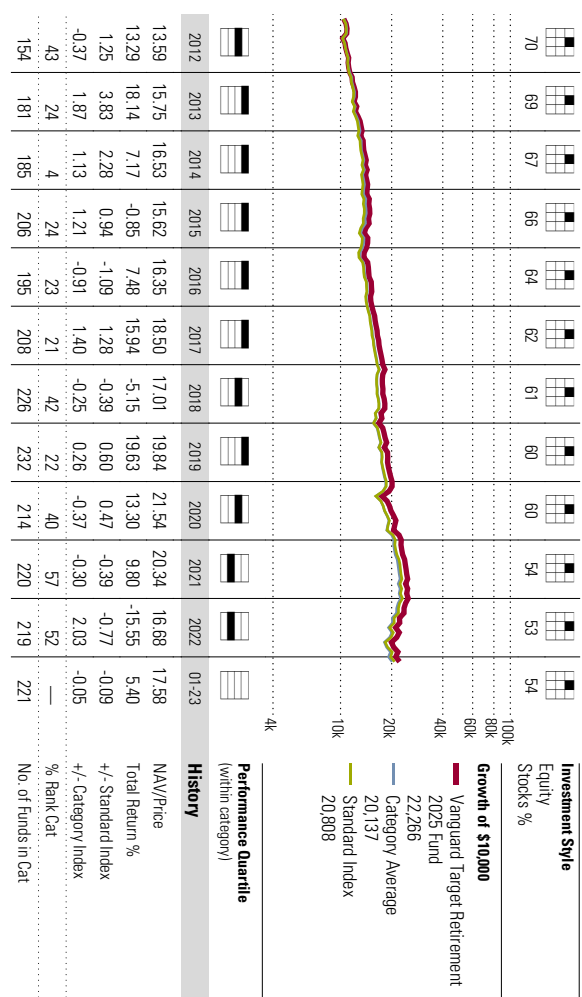
Standard Deviation	3 Yr	5 Yr	10 Yr
Mean	13.71	11.77	9.51
Beta	0.97	0.88	0.88
R-Squared	99.18	99.22	99.22
12-Month Yield Potential Cap Gains Exp	2.08%	2.08%	9.02%

MPT Statistics	Standard Index	Best Frt Index Morningstar TR USD	Lifetime Mod 2025 TR USD
Alpha	-0.33	0.28	0.28
Beta	0.97	0.88	0.88
R-Squared	99.18	99.22	99.22

Operations
 Family: Vanguard
 Manager: Multiple
 Tenure: 10.0 Years
 Objective: Asset Allocation

Base Currency: USD
 Ticker: VTTVX
 ISIN: US92202E4098
 Minimum Initial Purchase: \$1,000

Purchase Constraints: —
 Incept: 10-27-2003
 Type: MF
 Total Assets: \$75,189.92 mil



Portfolio Analysis 01-31-2023		
Asset Allocation %	Net %	Long %
Cash	3.14	5.27
US Stocks	32.45	32.45
Non-US Stocks	22.63	22.63
Bonds	41.74	41.77
Other/Not Cstfd	0.03	0.03
Total	100.00	102.16

Equity Style	Value	Brand	Growth
	Large	Mid	Small
	High	Med	Low

Portfolio Statistics	Port	Rel	Index	Rel	Index
P/E Ratio TTM	15.6	1.03	1.00	6.42	8.35
P/C Ratio TTM	11.6	1.02	1.00	2.34	2.34
P/B Ratio TTM	2.3	1.07	0.97	92.23	92.23
Geo Avg Mkt Cap \$mil	59800	1.36	0.91	8.35	6.42

Fixed-Income Style	Ltd	Med	Ext
	High <td>Med <td>Low </td></td>	Med <td>Low </td>	Low

Credit Quality Breakdown	12-31-2022
AAA	60.19
AA	8.92
A	16.00
BBB	14.15
BB	0.00
B	0.00
Below B	0.41
NR	0.34

Regional Exposure	Stocks %	Rel Std Index
Americas	63.0	1.02
Greater Europe	18.1	0.99
Greater Asia	18.9	0.95

Share Clng	Share	Holdings	Net Assets
12-2022	Amount	10,862 Total Stocks, 17,271 Total Fixed-Income, 14% Turnover Ratio	%
⊖	133 mil	Vanguard Total Stock Mkt Idx Instl	32.93
⊕	2.162 mil	Vanguard Total Bond Market II Idx	27.72
⊕	960 mil	Vanguard Total Intl Stock Index Inv	23.05
⊕	343 mil	Vanguard Total Intl Bnd II Idx Instl	11.88
⊕	108 mil	Vanguard Shrt-Term Intl-Prot Sec I	3.40

Sector Weightings	Stocks %	Rel Std Index
Cyclical	35.2	0.86
Basic Materials	5.1	0.91
Consumer Cyclical	10.3	0.89
Financial Services	16.3	0.98
Real Estate	3.5	0.49
Sensitive	41.1	1.13
Communication Services	6.4	1.17
Energy	5.4	1.04
Industrials	11.5	1.00
Technology	17.8	1.24
Defensive	23.8	1.05
Consumer Defensive	7.4	1.05
Healthcare	13.2	1.10
Utilities	3.1	0.91

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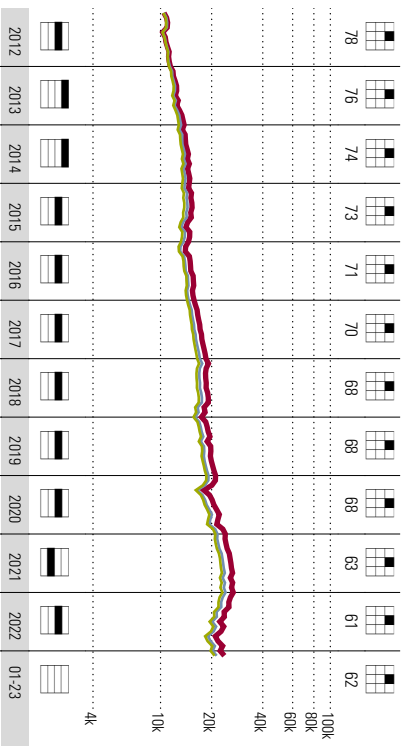


Vanguard Target Retirement 2030 Fund (USD)

Morningstar Analyst Rating™
Silver
02-24-2022

Overall Morningstar Rating™ Standard Index Category Index Morningstar Cat
 Morningstar Mod US Fund Target-Date
 195 US Fund Target-Date Tgt Risk TR USD Lifetime Mod 2030 2030
 2030 TR USD

Performance 01-31-2023					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2021	2.49	5.25	-0.78	4.06	11.98
2022	-5.65	-11.67	-5.93	6.81	-16.27
2023	—	—	—	—	5.87



Investment Style	
Equity	Stocks %
Vanguard Target Retirement 2030 Fund	23.762
Category Average	21.396
Standard Index	20.808

Trailing Returns	
	Incept
Load-adj Mthly	6.35
Std 12-31-2022	6.02
Total Return	6.35
+/- Std Index	1.13
+/- Cat Index	0.52
% Rank Cat	27
No. in Cat	195

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 future 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.
 Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-662-7447 or visit www.vanguard.com.

7-day Yield	Subsidized	Unsubsidized
30-day SEC Yield 02-07-23	2.05	2.05

Portfolio Analysis 01-31-2023											
Asset Allocation %			Net %			Long %			Short %		
Cash	23.38	27.64	29.04	27.72	29.20	33.63	30.82	36.45	40.55	38.42	33.21
US Stocks	14.24	20.49	7.17	-1.03	7.85	17.52	-5.86	21.07	14.10	11.38	-16.27
Non-US Stocks	2.20	6.18	2.28	0.76	-0.72	2.87	-1.10	2.05	1.28	1.19	-1.49
Bonds	-0.43	0.85	1.16	1.27	-1.41	0.93	-0.03	-0.17	0.41	-0.31	-0.04
Other/Not Cstfd	38	25	5	31	32	34	37	32	38	61	44
Total	208	222	228	237	221	234	239	241	224	221	224

Sales Charges
Front-End Load % NA
Deferred Load % NA
Fund Expenses 0.00
Management Fees % 0.00
12b1 Expense % NA
Net Expense Ratio % 0.08
Gross Expense Ratio % 0.08
Risk and Return Profile

Equity Style		Portfolio Statistics	
Value	Brand Growth	P/E Ratio TTM	P/C Ratio TTM
Large	Med	11.6	1.01
Med	Small	2.3	1.07
Small	Micro	2.3	1.07

Sector Weightings		Share Clng		Holdings	
	Stocks %	Amount	10,941 Total Stocks	17,126 Total Fixed-Income, 11% Turnover Ratio	Net Assets %
Basic Materials	5.1	163 mil	Vanguard Total Stock Mkt Idx Instl	37.77	0.86
Consumer Cyclical	10.3	1,198 mil	Vanguard Total Intl Stock Index Inv	26.83	0.91
Financial Services	16.3	2,024 mil	Vanguard Total Bond Market II Idx	24.19	0.89
Real Estate	3.5	318 mil	Vanguard Total Intl Bd II Idx Instl	10.27	0.99

Morningstar Rating™	
Morningstar Risk	Morningstar Return
3★	3★
Avg	Avg
Avg	+Avg

Credit Quality Breakdown 12-31-2022	
AAA	Bond %
AA	57.01
A	9.62
BBB	17.28
BB	15.28
B	0.00
Below B	0.00
NR	0.44

Defensive	
Consumer Defensive	Healthcare
23.7	7.4
1.05	1.05
1.09	1.09
0.91	0.91

MPT Statistics	
Standard Deviation	Sharpe Ratio
15.11	0.28
13.01	0.29
10.51	0.64
7.21	0.64

Regional Exposure	
Americas	Greater Europe
62.7	18.2
1.02	1.00
19.1	0.95

Performance Quartile (within category)	
NAV/Price	Total Return %
23.762	21.396
23.762	20.808

Operations
Family: Vanguard
Manager: Multiple
Tenure: 10.0 Years
Objective: Asset Allocation

Base Currency: USD
Ticker: VTHRX
ISIN: US92202E8883
Minimum Initial Purchase: \$1,000

Purchase Constraints: —
Incept: 06-07-2006
Type: MF
Total Assets: \$80,653,80 mil

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Vanguard Target Retirement 2035 Fund (USD)

Morningstar Analyst Rating™
Silver
 02-24-2022

Overall Morningstar Rating™
★★★★
 188 US Fund Target-Date
 2035

Standard Index
 Morningstar Mod
 Tgt Risk TR USD

Category Index
 Morningstar
 Lifetime Mod 2035
 TR USD

Morningstar Cat
 US Fund Target-Date
 2035

Performance 01-31-2023					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2021	3.17	5.65	-0.87	4.55	12.96
2022	-5.66	-12.41	-6.09	7.45	-16.62
2023	—	—	—	—	6.20

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-7.77	4.89	4.78	7.79	7.13
Std 12-31-2022	-16.62	—	4.34	7.57	6.83
Total Return	-7.77	4.89	4.78	7.79	7.13
+/- Std Index	-1.20	1.02	0.49	1.71	—
+/- Cat Index	0.27	0.61	0.27	0.45	—
% Rank Cat	37	55	49	31	—
No. in Cat	212	188	167	99	—

7-day Yield	Subsidized	Unsubsidized
30-day SEC Yield 02-07-23	2.06	2.06

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 future 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.

Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-662-7447 or visit www.vanguard.com.

Fees and Expenses

Sales Charges	
Front-End Load %	NA
Deferred Load %	NA

Fund Expenses	
Management Fees %	0.00
12b1 Expense %	NA
Net Expense Ratio %	0.08
Gross Expense Ratio %	0.08

Risk and Return Profile

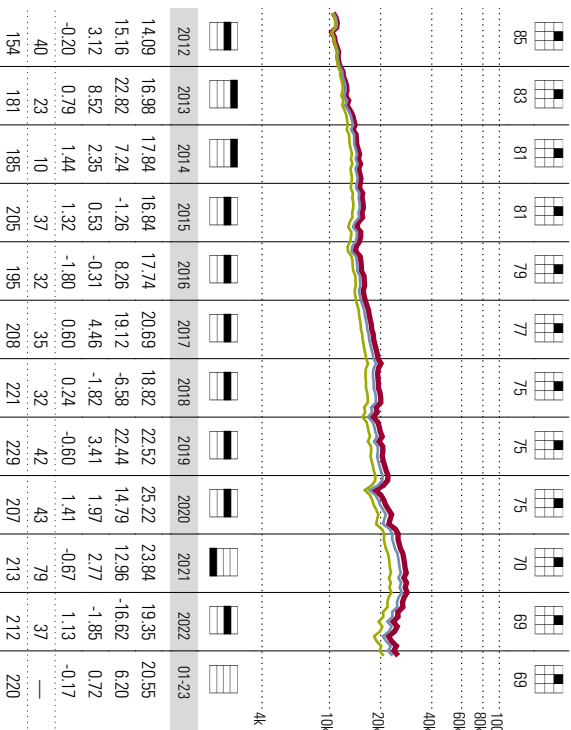
Morningstar Rating™	3★	3★	4★
Morningstar Risk	-Avg	-Avg	-Avg
Morningstar Return	Avg	Avg	+Avg

Standard Deviation	3 Yr 16.39	5 Yr 14.18	10 Yr 11.48
Mean	4.89	4.78	7.79
Sharpe Ratio	0.32	0.30	0.64

MPT Statistics	Standard Index	Best Fit Index	Morningstar
			TR USD
			Lifetime Mod 2035

Alpha	0.72	0.69	0.95
Beta	1.16	0.95	0.95
R-Squared	99.12	99.37	99.37
12-Month Yield	1.95%	1.95%	1.95%
Potential Cap Gains Exp	10.78%	10.78%	10.78%

Operations	
Family:	Vanguard
Manager:	Multiple
Tenure:	10.0 Years
Objective:	Asset Allocation



Investment Style	Equity	Stocks %
Vanguard Target Retirement 2035 Fund	25,370	23.493
Category Average	23,493	20.808
Standard Index	20,808	

Performance Quartile (within category)	NAV/Price	Total Return %	+/- Standard Index	+/- Category Index	% Rank Cat	No. of Funds in Cat						
History	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	01-23
	14.09	16.98	17.84	16.84	17.74	20.69	18.82	22.52	25.22	23.84	19.35	20.55
	15.16	22.82	7.24	-1.26	8.26	19.12	-6.58	22.44	14.79	12.96	-16.62	6.20
	3.12	8.52	2.35	0.53	-0.31	4.46	-1.82	3.41	1.97	2.77	-1.85	0.72
	-0.20	0.79	1.44	1.32	-1.80	0.60	0.24	-0.60	1.41	-0.67	1.13	-0.17
	40	23	10	37	32	35	32	42	43	79	37	—
	154	181	185	205	195	208	221	229	207	213	212	220

Portfolio Analysis 01-31-2023		
Asset Allocation %	Net %	Long %
Cash	2.87	4.33
US Stocks	41.23	41.23
Non-US Stocks	29.03	29.03
Bonds	26.84	26.86
Other/Not Cstfd	0.04	0.04
Total	100.00	101.49

Share Cng	Share	Holdings	Net Assets
since	Amount	11,017 Total Stocks	1,691.9 Total Fixed-Income,
12-2022	9% Turnover Ratio		
⊕	179 mil	Vanguard Total Stock Mkt Idx Instl	41.84
⊕	1,308 mil	Vanguard Total Intl Stock Index Inv	29.57
⊕	1,598 mil	Vanguard Total Bond Market II Idx	19.29
⊕	248 mil	Vanguard Total Intl Bd II Idx Instl	8.11

Equity Style	Value	Brand	Growth
	Large	Mid	Small
	High	Med	Low
	High	Med	Low

Portfolio Statistics	Port	Rel	Rel
	Index	Index	Cat
P/E Ratio TTM	15.6	1.03	0.99
P/C Ratio TTM	11.6	1.01	1.00
P/B Ratio TTM	2.3	1.07	0.96
Geo Avg Mkt Cap	59613	1.36	0.92

Fixed-Income Style		
Ltd	Med	Ext
High	Med	Low

Sector Weightings	Stocks %	Rel Std Index
⊖ Cyclical	35.2	0.86
Basic Materials	5.1	0.91
Consumer Cyclical	10.3	0.89
Financial Services	16.3	0.99
Real Estate	3.5	0.49
⊕ Sensitive	41.0	1.13
Communication Services	6.4	1.17
Energy	5.4	1.04
Industrials	11.5	1.00
Technology	17.8	1.24
⊖ Defensive	23.7	1.05
Consumer Defensive	7.4	1.05
Healthcare	13.2	1.10
Utilities	3.1	0.91

Credit Quality Breakdown	12-31-2022	Bond %
AAA	57.11	
AA	9.58	
A	17.24	
BBB	15.27	
BB	0.00	
B	0.00	
Below B	0.44	
NR	0.36	

Regional Exposure	Stocks %	Rel Std Index
Americas	62.8	1.02
Greater Europe	18.2	0.99
Greater Asia	19.0	0.95

Base Currency:	USD
Ticker:	VTHIX
ISIN:	US92202E9087
Minimum Initial Purchase:	\$1,000

Purchase Constraints:	—
Incept:	10-27-2003
Type:	MF
Total Assets:	\$79,867.81 mil

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Vanguard Target Retirement 2040 Fund (USD)

Morningstar Analyst Rating™
Silver
 02-24-2022

Overall Morningstar Rating™ **Standard Index** **Category Index** **Morningstar Cat**
 ★★★★★ **189 US Fund Target-Date** **Morningstar Mod** **US Fund Target-Date**
 2040 **Tgt Risk TR USD** **Lifetime Mod 2040** **2040**
TR USD

Performance 01-31-2023					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2021	3.82	6.11	-0.98	5.02	14.56
2022	-5.66	-13.17	-6.33	8.20	-16.96
2023	—	—	—	—	6.53

Trailing Returns					
	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-7.69	5.64	5.14	8.28	6.96
Std 12-31-2022	-16.98	—	4.74	8.06	6.59
Total Return	-7.69	5.64	5.14	8.28	6.96
+/- Std Index	-1.12	1.77	0.86	2.20	—
+/- Cat Index	-0.60	0.46	0.25	0.51	—
% Rank Cat	41	56	46	27	—
No. in Cat	216	189	170	96	—

7-day Yield		Subsidized	Unsubsidized
30-day SEC Yield 02-07-23	2.07	2.07	2.07

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.

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Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-662-7447 or visit www.vanguard.com.

Fees and Expenses

Sales Charges	NA
Front-End Load %	NA
Deferred Load %	NA

Fund Expenses	0.00
Management Fees %	0.00
12b1 Expense %	NA

Net Expense Ratio %	0.08
Gross Expense Ratio %	0.08

Risk and Return Profile

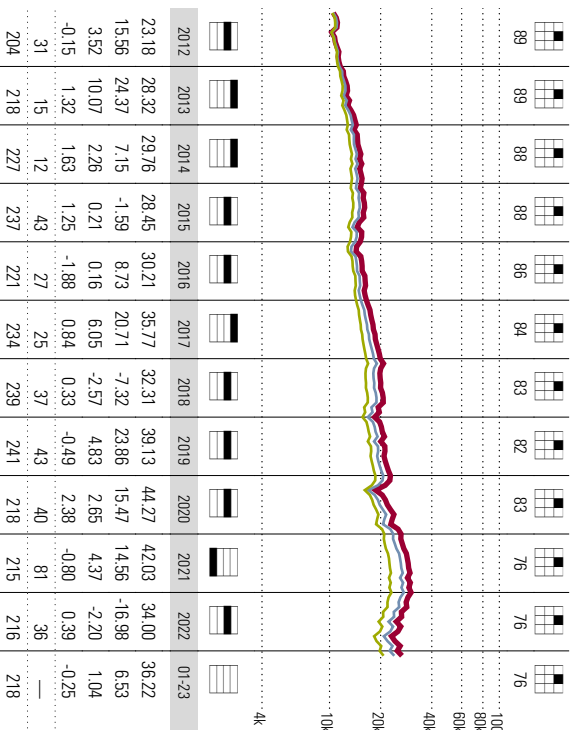
	3 Yr	5 Yr	10 Yr
Morningstar Rating™	3★	3★	4★
Morningstar Risk	-Avg	-Avg	-Avg
Morningstar Return	Avg	Avg	+Avg

	3 Yr	5 Yr	10 Yr
Standard Deviation	17.67	15.35	12.42
Mean	5.64	5.14	8.28
Sharpe Ratio	0.35	0.31	0.64

MPT Statistics	Standard Index	Best Fit Index
Alpha	1.32	-0.57
Beta	1.25	0.86
R-Squared	98.89	99.43

12-Month Yield	1.96%
Potential Cap Gains Exp	10.64%

Operations	
Family:	Vanguard
Manager:	Multiple
Tenure:	10.0 Years
Objective:	Asset Allocation



Investment Style	
Equity	Stocks %
NAV/Price	36.22
Total Return %	6.53
+/- Standard Index	1.04
+/- Category Index	-0.25
% Rank Cat	—
No. of Funds in Cat	218

History	
NAV/Price	36.22
Total Return %	6.53
+/- Standard Index	1.04
+/- Category Index	-0.25
% Rank Cat	—
No. of Funds in Cat	218

Portfolio Analysis 01-31-2023	
Asset Allocation %	Net %
Cash	2.93
US Stocks	45.58
Non-US Stocks	31.63
Bonds	19.82
Other/Not Cstfd	0.04
Total	100.00

Sector Weightings	
Share Cng	Share Holdings
12-2022	Amount
12-2022	7% Turnover Ratio
172 mil	Vanguard Total Stock Mkt Idx Instl
1,239 mil	Vanguard Total Intl Stock Index Inv
1,025 mil	Vanguard Total Bond Market II Idx
160 mil	Vanguard Total Intl Bd II Idx Instl

Equity Style	
Value	Brand Growth
Large	Mid
Mid	Small

Portfolio Statistics	
P/E Ratio TTM	15.6
P/C Ratio TTM	11.6
P/B Ratio TTM	2.3
Geo Avg Mkt Cap	59895

Fixed-Income Style	
Ltd	Med
Med	Ext
High	Low

Sector Weightings	
12-2022	Amount
172 mil	Vanguard Total Stock Mkt Idx Instl
1,239 mil	Vanguard Total Intl Stock Index Inv
1,025 mil	Vanguard Total Bond Market II Idx
160 mil	Vanguard Total Intl Bd II Idx Instl

Credit Quality Breakdown 12-31-2022

	AAA	AA	A	BBB	BB	B	Below B	NR
AAA	17.27	9.61	17.27	15.28	0.00	0.00	0.44	0.36
AA	57.05	2.48	—	—	—	—	—	—
A	2.48	—	—	—	—	—	—	—
BBB	—	—	—	—	—	—	—	—
BB	—	—	—	—	—	—	—	—
B	—	—	—	—	—	—	—	—
Below B	—	—	—	—	—	—	—	—
NR	—	—	—	—	—	—	—	—

Bond %	
Consumer Defensive	23.8
Healthcare	7.4
Utilities	13.2
Consumer Defensive	3.1
Healthcare	1.05
Utilities	1.10
Consumer Defensive	0.91

Regional Exposure	
Stocks %	63.1
Greater Europe	18.0
Greater Asia	18.9

Rel Std Index	
Stocks %	1.02
Greater Europe	0.98
Greater Asia	0.94

Base Currency:	
USD	USD
VFORX	VFORX
US92202EB701	US92202EB701
Minimum Initial Purchase:	\$1,000

Purchase Constraints:	
Incept	06-07-2006
Type:	MF
Total Assets:	\$69,412.08 mil

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Vanguard Target Retirement 2045 Fund (USD)

Morningstar Analyst Rating™
 **Silver**
 02-24-2022

Overall Morningstar Rating™ **★★★★**
 188 US Fund Target-Date
 2045

Category Index Morningstar Mod
 US Fund Target-Date
Morningstar Cat US Fund Target-Date
 Lifetime Mod 2045 2045
 TR USD TR USD

Performance 01-31-2023					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2021	4.47	6.55	-1.08	5.49	16.16
2022	-5.67	-13.93	-6.51	8.89	-17.36
2023	—	—	—	—	6.88

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-7.60	6.43	5.56	8.60	7.74
Std 12-31-2022	-17.36	—	5.14	8.34	7.40
Total Return	-7.60	6.43	5.56	8.60	7.74
+/- Std Index	-1.03	2.56	1.28	2.52	—
+/- Cat Index	-1.22	0.65	0.43	0.65	—
% Rank Cat	37	39	39	19	—
No. in Cat	212	188	167	99	—

	Subsidized	Unsubsidized
7-day Yield	—	2.07
30-day SEC Yield 02-07-23	2.07	2.07

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.

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Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-662-7447 or visit www.vanguard.com.

Sales Charges	NA
Front-End Load %	NA
Deferred Load %	NA

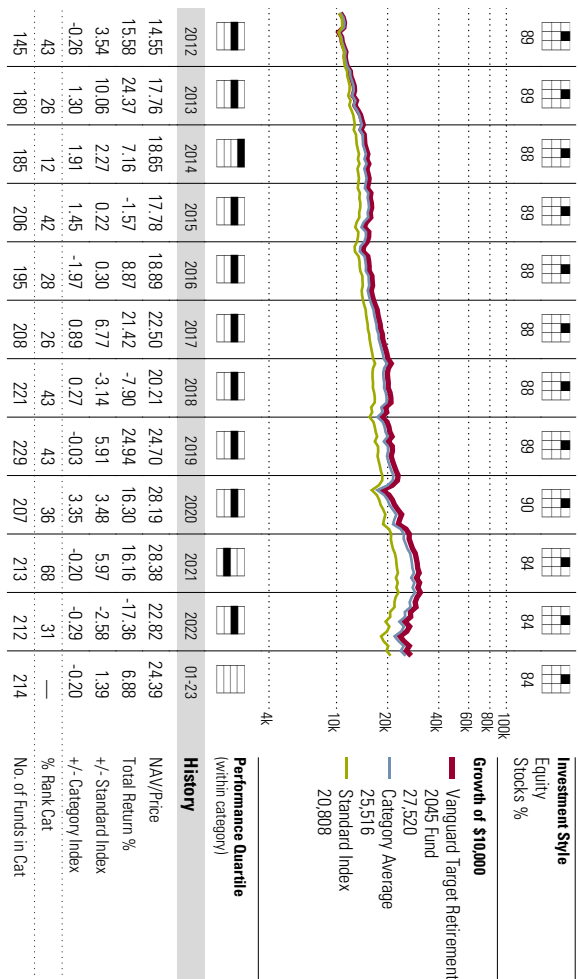
Fund Expenses	0.00
Management Fees %	0.00
12b1 Expense %	NA
Net Expense Ratio %	0.08
Gross Expense Ratio %	0.08

Risk and Return Profile	3 Yr	5 Yr	10 Yr
Morningstar Rating™	3★	3★	4★
Morningstar Risk	Avg	Avg	-Avg
Morningstar Return	Avg	Avg	+Avg

	3 Yr	5 Yr	10 Yr
Standard Deviation	18.98	16.47	13.14
Mean	6.43	5.56	8.60
Sharpe Ratio	0.37	0.33	0.63

MPT Statistics	Standard Index	Best Fit Index
Alpha	1.95	-0.09
Beta	1.34	0.93
R-Squared	98.60	99.60
12-Month Yield	1.98%	1.98%
Potential Cap Gains Exp	13.04%	13.04%

Operations	Vanguard
Family:	Vanguard
Manager:	Multiple
Tenure:	10.0 Years
Objective:	Asset Allocation



Portfolio Analysis 01-31-2023					
Asset Allocation %	Net %	Long %	Short %	Share Clng	Share Holdings:
Cash	2.86	3.57	0.71	12-2022	11,104 Total Stocks, 15,222 Total Fixed-Income, 5% Turnover Ratio
US Stocks	49.95	49.95	0.00	⊕	177 mil Vanguard Total Stock Mkt Idx Instl
Non-US Stocks	34.29	34.29	0.00	⊕	1,260 mil Vanguard Total Int'l Stock Index Inv
Bonds	12.87	12.88	0.01	⊖	625 mil Vanguard Total Bond Market II Idx
Other/Not Clsfd	0.04	0.04	0.00	⊕	97 mil Vanguard Total Intl Bnd II Idx Instl
Total	100.00	100.72	0.72		

Equity Style	Portfolio Statistics	Part Avg Index	Rel Index	Rel Cat
Value	P/E Ratio TTM	15.6	1.03	1.01
Small Growth	P/C Ratio TTM	11.6	1.02	1.01
Large	P/B Ratio TTM	2.3	1.07	0.98
Mid	Geo Avg Mkt Cap	60110	1.37	0.97
Small				

Fixed-Income Style	Portfolio Statistics	Avg Eff Maturity	Avg Eff Duration	Avg Wtd Coupon	Avg Wtd Price
Mid					
Ext					
High					
Low					

Credit Quality Breakdown	12-31-2022	Bond %
AAA	57.11	57.11
AA	9.58	9.58
A	17.24	17.24
BBB	15.27	15.27
BB	0.00	0.00
B	0.00	0.00
Below B	0.44	0.44
NR	0.36	0.36

Regional Exposure	Stocks %	Rel Std Index
Americas	63.3	1.03
Greater Europe	17.9	0.98
Greater Asia	18.8	0.94

Operations	USD
Base Currency:	USD
Ticker:	VTIVX
SIIN:	US92202E6077
Minimum Initial Purchase:	\$1,000
Purchase Constraints:	—
Incept:	10-27-2003
Type:	MF
Total Assets:	\$65,129.80 mil

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Vanguard Target Retirement 2050 Fund (USD)

Morningstar Analyst Rating™
Silver
02-24-2022

Overall Morningstar Rating™
★★★★
189 US Fund Target-Date
2050

Standard Index
Morningstar Mod
Tgt Risk TR USD

Category Index
Morningstar
US Fund Target-Date
Lifetime Mod 2050
TR USD

Morningstar Cat
US Fund Target-Date
2050

Performance 01-31-2023					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2021	4.53	6.61	-1.11	5.63	16.41
2022	-5.65	-14.21	-6.64	9.23	-17.46
2023	—	—	—	—	7.06

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-7.51	6.56	5.64	8.64	7.20
Std 12-31-2022	-17.46	—	5.18	8.36	6.79
Total Return	-7.51	6.56	5.64	8.64	7.20
+/- Std Index	-0.93	2.69	1.35	2.56	—
+/- Cat Index	-1.47	0.55	0.45	0.70	—
% Rank Cat	32	39	41	21	—
No. in Cat	213	189	170	96	—

7-day Yield	Subsidized	Unsubsidized
30-day SEC Yield 02-07-23	2.07	2.07

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 future 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.

Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-662-7447 or visit www.vanguard.com.

Fees and Expenses

Sales Charges

Front-End Load % NA

Deferred Load % NA

Fund Expenses

Management Fees % 0.00

12b1 Expense % NA

Net Expense Ratio % 0.08

Gross Expense Ratio % 0.08

Risk and Return Profile

	3 Yr	5 Yr	10 Yr
Morningstar Rating™	4★	3★	4★
Morningstar Risk	-Avg	-Avg	-Avg
Morningstar Return	Avg	Avg	+Avg

	3 Yr	5 Yr	10 Yr
Standard Deviation	19.18	16.62	13.23
Mean	6.56	5.64	8.64
Sharpe Ratio	0.38	0.33	0.63

MFT Statistics

	Standard Index	Best Fit Index
Alpha	2.05	0.00
Beta	1.35	0.94
R-Squared	98.88	99.62
12-Month Yield	—	1.98%
Potential Cap Gains Exp	—	9.24%

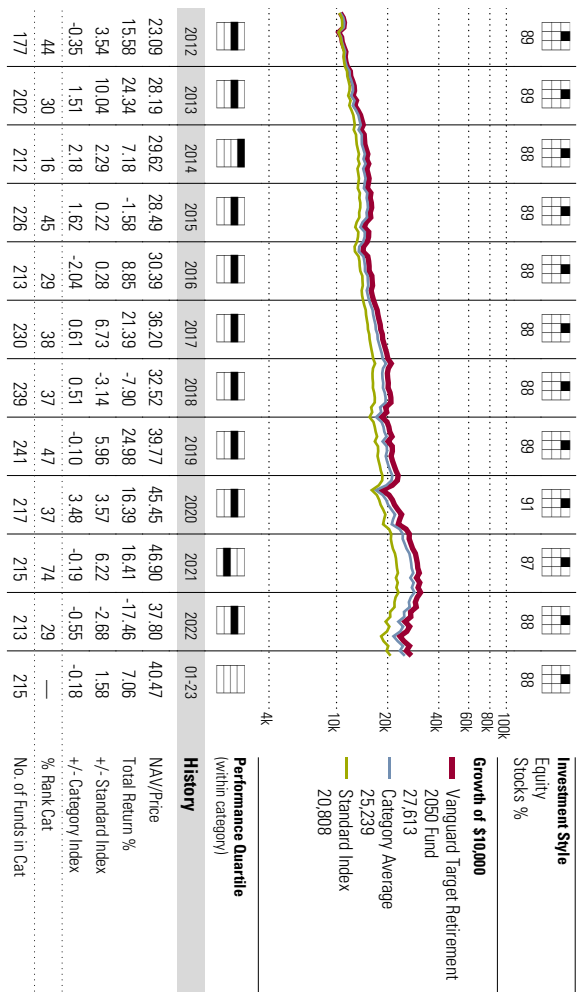
Operations

Family: Vanguard

Manager: Multiple

Tenure: 10.0 Years

Objective: Asset Allocation



Portfolio Analysis 01-31-2023

Asset Allocation %

Asset Class	Net %	Long %	Short %
Cash	2.74	3.24	0.50
US Stocks	52.35	52.35	0.00
Non-US Stocks	35.69	35.69	0.00
Bonds	9.17	9.18	0.01
Other/Not Cstfd	0.04	0.04	0.00
Total	100.00	100.51	0.51

Equity Style

Value	Brand	Growth	Port	Rel	Rel
Large	Med	Ext	Index	Index	Cat
P/E Ratio TTM	15.6	1.03	1.00	1.00	1.00
P/C Ratio TTM	11.6	1.02	1.00	1.00	1.00
P/B Ratio TTM	2.3	1.07	0.98	1.00	1.00
Geo Avg Mkt Cap	60248	1.37	0.99	1.00	1.00

Portfolio Statistics

Stat	Value
Avg Eff Maturity	8.83
Avg Eff Duration	6.74
Avg Wtd Coupon	2.49
Avg Wtd Price	—

Fixed-Income Style

Stat	Value
Credit Quality Breakdown	12-31-2022
AAA	Bond %
AA	57.60
AA	9.34
A	17.06
BBB	15.22
BB	0.00
B	0.00
Below B	0.42
NR	0.36

Regional Exposure

Region	Stocks %	Rel Std Index
Americas	63.5	1.08
Greater Europe	17.8	0.97
Greater Asia	18.7	0.93

Investment Style

Style	Equity	Stocks %
Vanguard Target Retirement 2050 Fund	27,613	25,239
Category Average	25,239	20,808
Standard Index	20,808	—

Performance Quartile
(within category)

History

Year	NAV/Price	Total Return %	+/- Standard Index	+/- Category Index	% Rank Cat	No. of Funds in Cat
2012	23.09	15.58	3.54	-0.35	44	177
2013	28.19	24.34	10.04	1.51	30	202
2014	29.62	7.18	2.29	2.18	16	212
2015	28.49	-1.58	0.22	1.62	45	226
2016	30.39	8.85	0.28	-2.04	29	213
2017	36.20	21.39	6.73	0.61	38	230
2018	32.52	-7.90	-3.14	0.51	37	239
2019	39.77	24.98	5.96	-0.10	47	241
2020	45.45	16.39	3.57	3.48	37	217
2021	46.90	16.41	6.22	-0.19	74	215
2022	37.80	-17.46	-2.68	-0.55	29	213
01-23	40.47	7.06	1.58	-0.18	—	215

Share Clng

Share Clng	Share	Holdings	Net Assets
12-2022	Amount	11,109 Total Stocks	14,178 Total Fixed-Income,
150 mil	Vanguard Total Stock Mkt Idx Instl	4%	Turnover Ratio
1,059 mil	Vanguard Total Intl Stock Index Inv	—	—
365 mil	Vanguard Total Bond Market II Idx	—	—
54 mil	Vanguard Total Intl Bd II Idx Instl	—	—

Sector Weightings

Sector	Stocks %	Rel Std Index
Cyclical	35.1	0.86
Basic Materials	5.0	0.90
Consumer Cyclical	10.3	0.89
Financial Services	16.3	0.98
Real Estate	3.5	0.49
Sensitive	41.1	1.13
Communication Services	6.4	1.17
Energy	5.4	1.04
Industrials	11.5	1.00
Technology	17.9	1.25
Defensive	23.8	1.06
Consumer Defensive	7.4	1.05
Healthcare	13.2	1.10
Utilities	3.1	0.91

Base Currency: USD

Minimum Initial Purchase: \$1,000

Purchase Constraints: —

Objective: Asset Allocation

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Vanguard Target Retirement 2055 Fund (USD)

Morningstar Analyst Rating™ Overall Morningstar Rating™ Standard Index Category Index Morningstar Cat
Silver **★★★★** **188 US Fund Target-Date** **Morningstar Mod** **US Fund Target-Date**
 02-24-2022 **IGr Risk TR USD** **Lifetime Mod 2055 2055**

Performance 01-31-2023

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2021	4.54	6.61	-1.11	5.65	16.44
2022	-5.69	-14.19	-6.63	9.23	-17.46
2023	—	—	—	—	7.07

Trailing Returns

	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-7.48	6.54	5.63	8.63	9.51
Std 12-31-2022	-17.46	—	5.18	8.34	8.97
Total Return	-7.48	6.54	5.63	8.63	9.51
+/- Std Index	-0.90	2.67	1.35	2.55	—
+/- Cat Index	-1.49	0.53	0.50	0.76	—
% Rank Cat	31	46	45	27	—
No. in Cat	212	188	167	81	—

7-day Yield — Subsidized — Unsubsidized —
 30-day SEC Yield 02-07-23 2.07 2.07

Performance Disclosure
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Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-662-7447 or visit www.vanguard.com.

Fees and Expenses

Sales Charges
Front-End Load % NA
Deferred Load % NA

Fund Expenses
 Management Fees % 0.00
 12b1 Expense % NA
Net Expense Ratio % 0.08
Gross Expense Ratio % 0.08

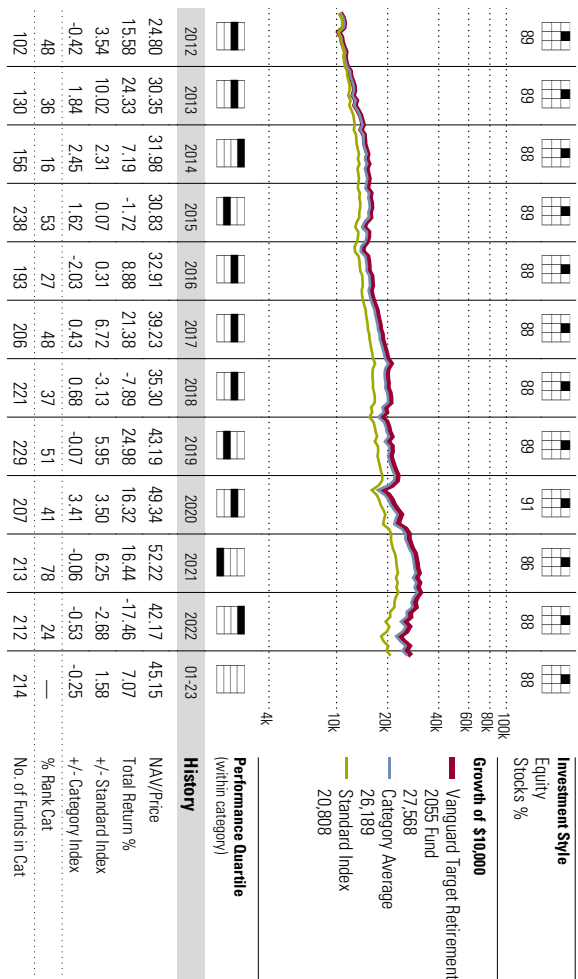
Risk and Return Profile

	3 Yr	5 Yr	10 Yr
Morningstar Rating™	4★	3★	4★
Morningstar Risk	-Avg	-Avg	-Avg
Morningstar Return	Avg	Avg	+Avg

Standard Deviation 3 Yr 19.19 5 Yr 16.61 10 Yr 13.22
 Mean 6.54 5.63 8.63
 Sharpe Ratio 0.38 0.33 0.63

MFT Statistics Standard Index Best Fit Index
 Alpha 2.04 -0.02 USD
 Beta 1.35 0.94
 R-Squared 98.89 99.63
 12-Month Yield 1.96%
 Potential Cap Gains Exp 2.34%

Operations
 Family: Vanguard
 Manager: Multiple
 Tenure: 10.0 Years
 Objective: Asset Allocation



Portfolio Analysis 01-31-2023

Asset Allocation %

Asset Class	Net %	Long %	Short %
Cash	2.77	3.27	0.50
US Stocks	52.38	52.38	0.00
Non-US Stocks	35.60	35.60	0.00
Bonds	9.20	9.21	0.01
Other/Not Cstfd	0.04	0.04	0.00
Total	100.00	100.51	0.51

Equity Style

Value	Brand	Growth	Port	Rel	Rel
Large	Mid	Ext	Index	Index	Cat
High	Med	Ext	High	Ext	High
Low	Med	Low	Low	Low	Low

Portfolio Statistics

Metric	Value
P/E Ratio TTM	15.6
P/C Ratio TTM	11.7
P/B Ratio TTM	2.3
Geo Avg Mkt Cap	60308
Avg Eff Maturity	8.83
Avg Eff Duration	6.74
Avg Wtd Coupon	2.49
Avg Wtd Price	—

Fixed-Income Style

Value	Brand	Growth	Port	Rel	Rel
Large	Mid	Ext	Index	Index	Cat
High	Med	Ext	High	Ext	High
Low	Med	Low	Low	Low	Low

Credit Quality Breakdown 12-31-2022

Rating	Bond %
AAA	57.58
AA	9.35
A	17.06
BBB	15.22
BB	0.00
B	0.00
Below B	0.42
NR	0.36

Regional Exposure

Region	Stocks %	Rel Std Index
Americas	63.6	1.03
Greater Europe	17.8	0.97
Greater Asia	18.6	0.93

Sector Weightings

Sector	Weighting %	Rel Std Index
Cyclical	35.1	0.86
Basic Materials	5.0	0.90
Consumer Cyclical	10.3	0.88
Financial Services	16.3	0.98
Real Estate	3.5	0.49
Sensitive	41.1	1.13
Communication Services	6.4	1.17
Energy	5.4	1.04
Industrials	11.5	1.00
Technology	17.9	1.25
Defensive	23.8	1.06
Consumer Defensive	7.4	1.05
Healthcare	13.2	1.10
Utilities	3.1	0.91

Performance Quartile (within category)

Category	NAV/Price	Total Return %	+/- Standard Index	+/- Category Index	% Rank Cat
Vanguard Target Retirement 2055 Fund	27,568	16.44	-17.46	-2.68	24
Category Average	26,189	16.44	-17.46	-2.68	24
Standard Index	20,808	16.44	-17.46	-2.68	24

History

Year	NAV/Price	Total Return %	+/- Standard Index	+/- Category Index	% Rank Cat
2012	24.80	15.58	3.54	-0.42	48
2013	30.35	24.33	10.02	1.84	36
2014	31.98	7.19	2.31	2.45	16
2015	30.83	-1.72	0.07	1.62	53
2016	32.91	8.88	0.31	-2.03	27
2017	39.23	21.38	6.72	0.43	48
2018	35.30	-7.89	-3.13	0.68	37
2019	43.19	24.98	5.95	-0.07	51
2020	49.34	16.32	3.50	3.41	41
2021	52.22	16.44	-17.46	-0.06	78
2022	42.17	-17.46	-2.68	-0.53	24
01-23	45.15	7.07	1.58	-0.25	—

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Vanguard Target Retirement 2060 Fund (USD)

Morningstar Analyst Rating™
Silver
02-24-2022

Overall Morningstar Rating™
★★★★
183 US Fund Target-Date
2060

Standard Index
Morningstar Mod
Tgt Risk TR USD

Category Index
Morningstar
Lifetime Mod 2060
TR USD

Morningstar Cat
US Fund Target-Date
2060

Performance 01-31-2023					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2021	4.54	6.61	-1.11	5.66	16.44
2022	-5.68	-14.19	-6.64	9.23	-17.46
2023	—	—	—	—	7.06

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-7.50	6.54	5.63	8.62	9.19
Std 12-31-2022	-17.46	—	5.18	8.34	8.59
Total Return	-7.50	6.54	5.63	8.62	9.19
+/- Std Index	-0.92	2.67	1.34	2.54	—
+/- Cat Index	-1.50	0.58	0.57	0.85	—
% Rank Cat	33	48	47	1	—
No. in Cat	212	183	157	1	—

7-day Yield	Subsidized	Unsubsidized
30-day SEC Yield 02-07-23	2.07	2.07

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.

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Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-662-7447 or visit www.vanguard.com.

Sales Charges	NA
Front-End Load %	NA
Deferred Load %	NA

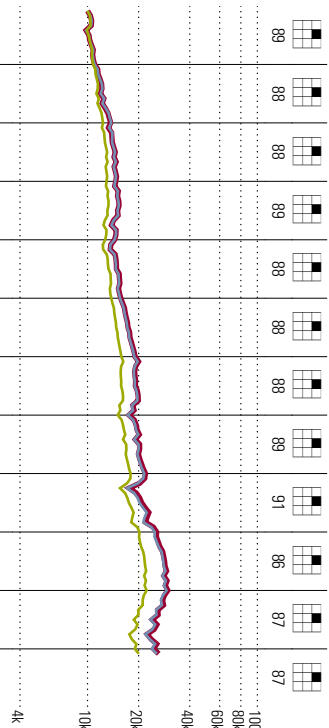
Fund Expenses	0.00
Management Fees %	0.00
12b1 Expense %	NA
Net Expense Ratio %	0.08
Gross Expense Ratio %	0.08

Risk and Return Profile	3 Yr	5 Yr	10 Yr
Morningstar Rating™	3★	3★	—
Morningstar Risk	-Avg	-Avg	—
Morningstar Return	Avg	Avg	—

Standard Deviation	3 Yr	5 Yr	10 Yr
Mean	19.16	16.60	13.22
Alpha	2.04	-0.02	—
Beta	1.35	0.93	—
R-Squared	98.88	99.62	—
12-Month Yield	1.96%	1.96%	—
Potential Cap Gains Exp	-2.09%	-2.09%	—

MFT Statistics	Standard Index	Best Fit Index
Alpha	2.04	-0.02
Beta	1.35	0.93
R-Squared	98.88	99.62
12-Month Yield	1.96%	1.96%
Potential Cap Gains Exp	-2.09%	-2.09%

Operations	Vanguard
Family:	Vanguard
Manager:	Multiple
Tenure:	10.0 Years
Objective:	Asset Allocation



Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	01-23	History
NAV/Price	21.81	26.75	28.20	27.21	29.04	34.63	31.18	38.16	43.59	48.04	38.83	41.57	NAV/Price
Total Return %	—	24.35	7.16	-1.68	8.84	21.36	-7.87	24.96	16.32	16.44	-17.46	7.06	Total Return %
+/- Standard Index	—	10.04	2.27	0.11	0.27	6.70	-3.11	5.93	3.50	6.25	-2.68	1.57	+/- Standard Index
+/- Category Index	—	2.17	2.63	1.80	-2.03	0.30	0.82	0.00	3.43	0.12	-0.48	-0.31	+/- Category Index
% Rank Cat	—	1	1	71	21	53	34	66	42	81	25	—	% Rank Cat
No. of Funds in Cat	1	9	43	106	160	201	216	257	208	212	214	214	No. of Funds in Cat

Portfolio Allocation %			Net %	Long %	Short %	Share Clng	Share Holdings	Net Assets
Cash	2.87	3.98	0.51	—	—	12-2022	Amount	11,109 Total Stocks, 14,190 Total Fixed-Income, 3% Turnover Ratio
US Stocks	52.51	52.51	0.00	—	—	48 mil	Vanguard Total Stock Mkt Idx Instl	53.29
Non-US Stocks	35.38	35.38	0.00	—	—	335 mil	Vanguard Total Int'l Stock Index Inv	36.01
Bonds	9.20	9.21	0.01	—	—	117 mil	Vanguard Total Bond Market Idx	6.70
Other/Not Clsfd	0.04	0.04	0.00	—	—	17 mil	Vanguard Total Int'l Bd Idx Instl	2.69
Total	100.00	100.52	0.52	—	—			

Equity Style	Portfolio Statistics	Part	Rel	Rel	Rel	Sector Weightings	Stocks %	Rel Std Index
Value	P/E Ratio TTM	15.6	1.04	1.01	8.83	📊 Cyclical	35.1	0.86
Small Growth	P/C Ratio TTM	11.7	1.02	1.01	6.74	📊 Basic Materials	5.0	0.90
Large	P/B Ratio TTM	2.3	1.08	0.98	11.7	📊 Consumer Cyclical	10.3	0.88
Mid	Geo Avg Mkt Cap	60476	1.38	0.97	2.49	📊 Financial Services	16.3	0.98
Small	Avg Eff Maturity	8.83	—	—	3.5	📊 Real Estate	3.5	0.49
High	Avg Eff Duration	6.74	—	—	41.1	📊 Sensitive	6.4	1.17
Med	Avg Wtd Coupon	6.74	—	—	5.4	📊 Communication Services	5.4	1.04
Low	Avg Wtd Price	2.49	—	—	5.4	📊 Energy	5.4	1.04

Fixed-Income Style	Credit Quality Breakdown	Bond %	Bond %	Utilities	Healthcare	Consumer Defensive	Technology	Defensive
AAA	12-31-2022	57.55	17.08	3.1	7.4	23.8	1.9	1.06
AA	9.37	17.08	—	13.3	1.05	1.05	1.10	1.10
A	15.23	0.00	0.42	3.1	0.91	0.91	—	—
BBB	0.00	0.00	0.36	—	—	—	—	—
BB	0.00	0.00	—	—	—	—	—	—
B	0.00	0.00	—	—	—	—	—	—
Below B	0.42	0.36	—	—	—	—	—	—
NR	0.36	—	—	—	—	—	—	—

Regional Exposure	Stocks %	Rel Std Index
Americas	63.7	1.08
Greater Europe	17.7	0.97
Greater Asia	18.5	0.93

Operations	USD	Purchase Constraints:
Base Currency:	USD	—
Ticker:	VWTSX	01-19-2012
SIIN:	US92202E8396	MFE
Minimum Initial Purchase:	\$1,000	Total Assets: \$16,732.27 mil

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Vanguard Target Retirement 2065 Fund (USD)

Morningstar Analyst Rating™
 Silver
 02-24-2022

Overall Morningstar Rating™
 5 Star
 52 US Fund Target-Date
 2065+

Standard Index
 Morningstar Mod
 Tgt Risk TR USD

Category Index
 Morningstar
 Lifetime Mod 2060
 TR USD

Morningstar Cat
 US Fund Target-Date
 2065+

Performance 01-31-2023

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2021	4.55	6.61	-1.11	5.66	16.46
2022	-5.63	-14.20	-6.60	9.24	-17.39
2023	—	—	—	—	7.04

Trailing Returns

	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-7.46	6.51	5.61	—	7.63
Std 12-31-2022	-17.39	—	5.15	—	6.42
Total Return	-7.46	6.51	5.61	—	7.63
+/- Std Index	-0.88	2.64	1.32	—	—
+/- Cat Index	-1.46	0.55	0.56	—	—
% Rank Cat	25	65	49	—	—
No. in Cat	162	52	14	—	—

7-day Yield

	Subsidized	Unsubsidized
30-day SEC Yield 01-31-23	2.06	2.06

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 future 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.

Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-662-7447 or visit www.vanguard.com.

Sales Charges

	NA
Front-End Load %	NA
Deferred Load %	NA

Fund Expenses

	0.00
Management Fees %	0.00
12b1 Expense %	NA

Net Expense Ratio % **0.08**

Gross Expense Ratio % **0.08**

Risk and Return Profile

	3 Yr	5 Yr	10 Yr
Morningstar Rating™	3★	—	—
Morningstar Risk	-Avg	—	—
Morningstar Return	Avg	—	—

Standard Deviation

	3 Yr	5 Yr	10 Yr
Mean	19.18	16.61	—
Mean	6.51	5.61	—
Sharpe Ratio	0.38	0.33	—

MPT Statistics

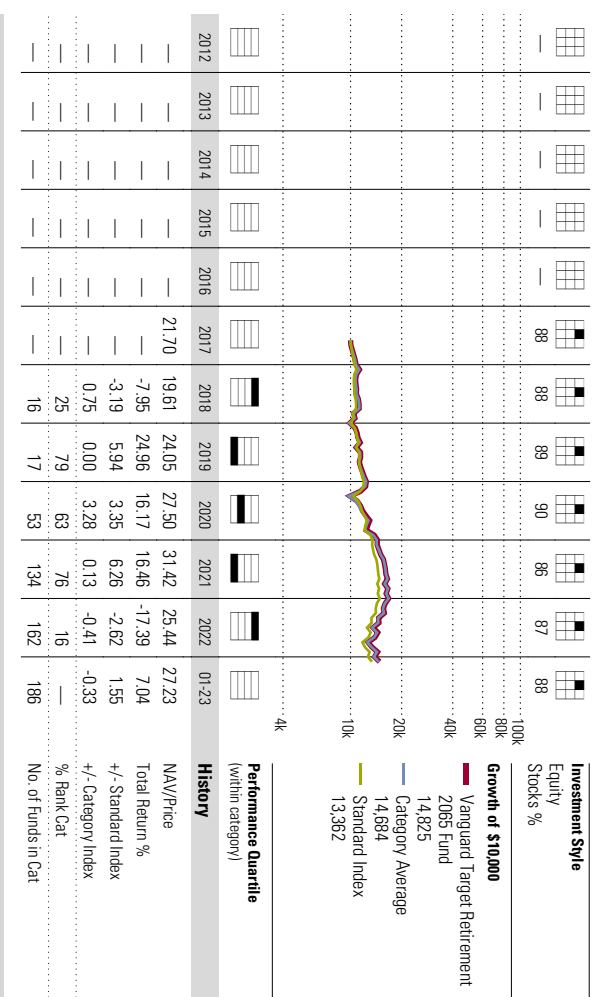
	Standard Index	Best Fit Index
Alpha	2.01	0.04
Beta	1.35	0.94
R-Squared	98.66	99.63

12-Month Yield

	1.87%
Potential Cap Gains Exp	-11.77%

Operations

Family:	Vanguard
Manager:	Multiple
Tenure:	5.6 Years
Objective:	Asset Allocation



Portfolio Analysis 01-31-2023

Asset Allocation %

	Net %	Long %	Short %
Cash	2.52	3.06	0.54
US Stocks	53.01	53.01	0.00
Non-US Stocks	35.30	35.30	0.00
Bonds	9.13	9.14	0.01
Other/Not Cstfd	0.04	0.04	0.00
Total	100.00	100.55	0.55

Share Cng

since	Amount	Holdings	Net Assets %
12-2022	2% Turnover Ratio	12 mil Vanguard Total Stock Mkt Idx Instl	53.81
		80 mil Vanguard Total Intl Stock Index Inv	35.92
		27 mil Vanguard Total Bond Market II Idx	6.40
		4 mil Vanguard Total Intl Bd II Idx Instl	2.93

Equity Style

Value	Brand	Growth	Port	Rel	Rel
Large	Med	Small	Index	Index	Cat
High	Med	Low	15.7	1.04	1.04
High	Med	Low	11.7	1.02	1.04
High	Med	Low	2.3	1.08	1.02
High	Med	Low	60710	1.38	1.03

Fixed-Income Style

Value	Brand	Growth	Port	Rel	Rel
Large	Med	Small	Index	Index	Cat
High	Med	Low	8.83	6.76	2.47
High	Med	Low	6.76	2.47	—
High	Med	Low	2.47	—	—
High	Med	Low	60710	1.38	1.03

Portfolio Statistics

	P/E Ratio TTM	P/C Ratio TTM	Geo Avg Mkt Cap
Value	15.7	11.7	2.3
Brand	1.04	1.02	1.08
Growth	1.04	1.02	1.02
	60710	1.38	1.03

Credit Quality Breakdown 12-31-2022

	Bond %
AAA	56.28
AA	9.98
A	17.56
BBB	15.36
BB	0.00
B	0.00
Below B	0.46
NR	0.36

Regional Exposure

	Stocks %	Rel Std Index
Americas	64.0	1.04
Greater Europe	17.6	0.96
Greater Asia	18.4	0.92

Base Currency: USD

ISIN: US92202E6804

Minimum Initial Purchase: \$1,000

Sector Weightings

	Stocks %	Rel Std Index
Cyclical	35.0	1.17
Basic Materials	5.0	0.89
Consumer Cyclical	10.3	0.88
Financial Services	16.2	0.98
Real Estate	3.5	0.49
Sensitive	41.2	1.13
Communication Services	6.4	1.17
Energy	5.4	1.04
Industrials	11.5	1.00
Technology	17.9	1.25
Defensive	23.8	1.06
Consumer Defensive	7.4	1.05
Healthcare	13.3	1.10
Utilities	3.1	0.91

Purchase Constraints:

Base Currency:	USD
ISIN:	US92202E6804
Minimum Initial Purchase:	\$1,000
Ticker:	VIXVX
Objective:	Asset Allocation
Family:	Vanguard
Manager:	Multiple
Tenure:	5.6 Years
Objective:	Asset Allocation

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Vanguard Target Retirement 2070 Fund (USD)

Standard Index Vanguard Target Retirement
Category Index Morningstar US Fund Target-Date Retirement Mod
Morningstar Cat US Fund Target-Date Retirement Mod 2065+
 Tgt Risk TR USD Lifetime Mod 2060 TR USD

Performance 01-31-2023					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2021	—	—	—	—	—
2022	—	—	-6.57	9.21	—
2023	—	—	—	—	7.04
Trailing Returns					Incept
1 Yr	3 Yr	5 Yr	10 Yr	—	8.14
Load-adj Mthly	—	—	—	—	8.14
Std 12-31-2022	—	—	—	—	1.02
Total Return	—	—	—	—	8.14
+/- Std Index	—	—	—	—	—
+/- Cat Index	—	—	—	—	—
% Rank Cat	—	—	—	—	—
No. in Cat	—	—	—	—	—
7-day Yield	Subsidized				
30-day SEC Yield	Unsubsidized				

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.
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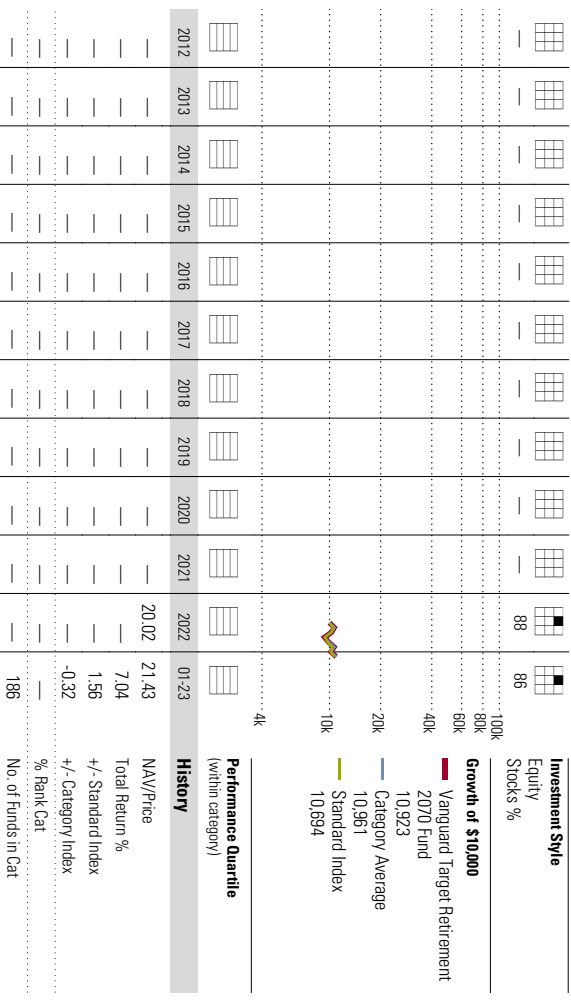
Sales Charges
Front-End Load % NA
Deferred Load % NA
Fund Expenses 0.00
Management Fees % 0.00
12b1 Expense % NA
Net Expense Ratio % 0.08
Gross Expense Ratio % 0.08
Risk and Return Profile

	3 Yr	5 Yr	10 Yr
Morningstar Rating™	52 funds	14 funds	10 Yr
Morningstar Risk	—	—	—
Morningstar Return	—	—	—
Standard Deviation	3 Yr	5 Yr	10 Yr
Mean	—	—	—
Sharpe Ratio	—	—	—
MPT Statistics	Standard Index		
Alpha	—	—	—
Beta	—	—	—
R-Squared	—	—	—
12-Month Yield	—	—	—
Potential Cap Gains Exp	—	-11.54%	—

Operations
Family: Vanguard
Manager: Multiple
Tenure: 0.7 Year
Objective: Asset Allocation

Base Currency: USD
Ticker: VSVNX
ISIN: US92202E6648
Minimum Initial Purchase: \$1,000

Purchase Constraints: —
Incept: 06-28-2022
Type: M/F
Total Assets: \$99.01 mil



Portfolio Analysis 01-31-2023

Asset Allocation %	12-31-2022	Net %	Long %	Short %
Cash	1.93	2.48	0.55	0.55
US Stocks	53.14	53.14	0.00	0.00
Non-US Stocks	35.19	35.19	0.00	0.00
Bonds	9.71	9.72	0.01	0.01
Other/Not Cstfd	0.04	0.04	0.04	0.00
Total	100.00	100.55	100.55	0.56

Top Holdings 12-31-2022

Share Cng	Share	Holdings:	Net Assets %
since	Amount	11,109 Total Stocks, 14,412 Total Fixed-Income, 44% Turnover Ratio	%
12-2022	221,022	Vanguard Total Stock Mkt Idx Instl	53.94
⊕	2 mil	Vanguard Total Intl Stock Index Inv	35.81
⊕	530,740	Vanguard Total Bond Market II Idx	6.95
⊕	83,278	Vanguard Total Intl Bd II Idx Instl	2.96

Equity Style

Value	Brand	Growth	Port	Rel	Rel
Large	Mid	Ext	Avg Index	Index	Cat
■	■	■	15.7	1.04	1.04
■	■	■	11.7	1.02	1.04
■	■	■	2.3	1.08	1.02
■	■	■	60709	1.38	1.03
■	■	■	Small	—	—

Portfolio Statistics
 P/E Ratio TTM: 15.7
 P/C Ratio TTM: 11.7
 P/B Ratio TTM: 2.3
 Geo Avg Mkt Cap: 60709 \$mil

Sector Weightings

Sector	Weightings	Stocks %	Rel Std Index
Cyclical		35.9	0.88
Basic Materials		5.1	0.91
Consumer Cyclical		10.9	0.94
Financial Services		16.3	0.99
Real Estate		3.6	0.49
Sensitive		41.8	1.15
Communication Services		6.7	1.23
Energy		5.2	0.99
Industrials		11.3	0.99
Technology		18.6	1.29
Defensive		22.4	0.99
Consumer Defensive		7.0	1.00
Healthcare		12.4	1.03
Utilities		2.9	0.84

Fixed-Income Style

Value	Brand	Growth	Port	Rel	Rel
High	Mid	Ext	Avg Eff Maturity	Index	Cat
■	■	■	8.83	6.75	—
■	■	■	Avg Eff Duration	—	—
■	■	■	Avg Wtd Coupon	—	—
■	■	■	Avg Wtd Price	—	—

Credit Quality Breakdown 12-31-2022

AAA	AA	A	BBB	BB	B	Below B	NR
56.95	9.66	17.30	15.29	0.00	0.00	0.44	0.36
Bond %	—	—	—	—	—	—	—

Regional Exposure

Region	Stocks %	Rel Std Index
Americas	64.0	1.04
Greater Europe	17.6	0.96
Greater Asia	18.4	0.92

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Vanguard Target Retirement Income Fund (USD)

Morningstar Analyst Rating™
Silver
 02-24-2022

Overall Morningstar Rating™ **Standard Index** **Category Index** **Morningstar Cat**
 Morningstar Mod Morningstar US Fund Target-Date
 145 US Fund Target-Date Tgt Risk TR USD Lifetime Mod Incm Retirement
 Retirement TR USD

Performance 01-31-2023

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2021	0.08	3.23	-0.13	2.01	5.25
2022	-4.77	-7.37	-4.64	3.74	-12.74
2023	—	—	—	—	3.92

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-6.94	1.38	2.87	3.91	4.76
Std 12-31-2022	-12.74	—	2.30	3.62	4.57
Total Return	-6.94	1.38	2.87	3.91	4.76
+/- Std Index	-0.37	-2.49	-1.42	-2.17	—
+/- Cat Index	-0.90	-1.24	-0.58	-0.14	—
% Rank Cat	55	43	35	39	—
No. in Cat	161	145	127	81	—

7-day Yield	Subsidized	Unsubsidized
30-day SEC Yield 02-07-23	2.80	2.80

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.

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Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-662-7447 or visit www.vanguard.com.

Sales Charges

Front-End Load %	NA
Deferred Load %	NA

Fund Expenses

Management Fees %	0.00
12b1 Expense %	NA
Net Expense Ratio %	0.08
Gross Expense Ratio %	0.08

Risk and Return Profile

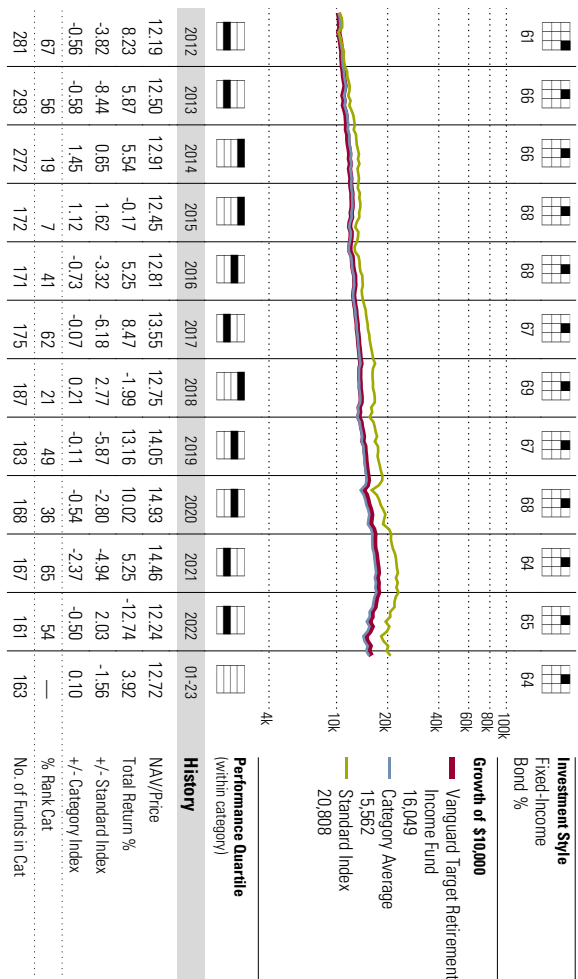
Morningstar Rating™	3 Yr	5 Yr	10 Yr
Morningstar Rating™	3★	4★	3★
Morningstar Risk	Avg	-Avg	Avg
Morningstar Return	Avg	Avg	Avg

MPT Statistics

Standard Index	Best Fit Index
Alpha	Morningstar US
Beta	Mod Con Tgt-Alice
R-Squared	NR USD
12-Month Yield	2.60%
Potential Cap Gains Exp	3.19%

Operations

Family:	Vanguard
Manager:	Multiple
Tenure:	10.0 Years
Objective:	Asset Allocation



Portfolio Analysis 01-31-2023

Asset Allocation %	Net %	Long %	Short %
Cash	4.83	7.69	2.86
US Stocks	17.43	17.43	0.00
Non-US Stocks	11.97	11.97	0.00
Bonds	65.74	65.79	0.04
Other/Not Cstfd	0.02	0.02	0.00
Total	100.00	102.90	2.90

Equity Style

Value	Brand	Growth
Large	Med	Ext
Med	Small	—

Portfolio Statistics

P/E Ratio TTM	15.6	1.03	1.04
P/C Ratio TTM	11.6	1.02	1.06
P/B Ratio TTM	2.3	1.07	1.04
Geo Avg Mkt Cap	60104	1.37	1.04

Fixed-Income Style

Value	Brand	Growth
High	Med	Ext
Med	Low	—

Credit Quality Breakdown 12-31-2022

AAA	66.57
AA	7.51
A	13.43
BBB	11.85
BB	0.00
B	0.00
Below B	0.34
NR	0.29

Regional Exposure

Stocks %	Rel Std Index
Americas	63.3
Greater Europe	17.9
Greater Asia	18.8

Share Clng

Share Clng	Share Amount	Holdings : 10,105 Total Stocks, 17,605 Total Fixed-Income, 19% Turnover Ratio	Net Assets %
12-2022	1,442 mil	Vanguard Total Bond Market II Idx	36.84
—	36 mil	Vanguard Total Stock Mkt Idx Instl	17.69
—	260 mil	Vanguard Shrt-Term Infl-Prot Sec I	16.27
—	230 mil	Vanguard Total Intl Bnd II Idx Intl	15.87
—	255 mil	Vanguard Total Intl Stock Index Inv	12.19

Sector Weightings

Sector	Stocks %	Rel Std Index
Cyclical	35.1	0.86
Basic Materials	5.0	0.90
Consumer Cyclical	10.3	0.89
Financial Services	16.3	0.98
Real Estate	3.5	0.49

Sensitive

Communication Services	41.1	1.13
Energy	6.4	1.17
Healthcare	5.4	1.04
Industrials	11.5	1.00
Technology	17.9	1.25

Defensive

Consumer Defensive	23.8	1.05
Healthcare	7.4	1.05
Utilities	13.2	1.10
Utilities	3.1	0.91

Base Currency: USD

Minimum Initial Purchase: \$1,000

Purchase Constraints: —

Ticker: VTINX

ISIN: US92202E1029

Incept: 10-27-2003

Total Assets: \$37,747.93 mil

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Vanguard Total Bond Market Index Adm (USD)

Morningstar Analyst Rating™ Overall Morningstar Rating™ Standard Index **Category Index** **Morningstar Cat**
Silver **406 US Fund Intermediate** **Bloomberg US** **Bloomberg US Agg**
 06-30-2022 **Core Bond** **Agg Bond TR USD** **Bond TR USD** **US Fund Intermediate** **Core Bond**

Performance 01-31-2023					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2021	-3.61	2.00	0.11	-0.09	-1.67
2022	-5.99	-4.71	-4.65	1.67	-13.16
2023	—	—	—	—	3.20
Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-8.40	-2.41	0.85	1.39	3.33
Std 12-31-2022	-13.16	—	-0.01	1.00	3.19
Total Return	-8.40	-2.41	0.85	1.39	3.33
+/- Std Index	-0.04	-0.06	-0.02	-0.04	—
+/- Cat Index	-0.04	-0.06	-0.02	-0.04	—
% Rank Cat	39	53	36	37	—
No. in Cat	453	406	373	276	—

7-day Yield	Subsidized	Unsubsidized
30-day SEC Yield 02-07-23	3.99	3.99

Performance Disclosure
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Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-662-7447 or visit www.vanguard.com.

Fees and Expenses

Sales Charges	NA
Front-End Load %	NA
Deferred Load %	NA

Fund Expenses	0.04
Management Fees %	0.04
12b1 Expense %	NA

Net Expense Ratio %	0.05
Gross Expense Ratio %	0.05

Risk and Return Profile

	3 Yr	5 Yr	10 Yr
Morningstar Rating™	3★	3★	3★
Morningstar Risk	Avg	Avg	Avg
Morningstar Return	Avg	Avg	Avg

	3 Yr	5 Yr	10 Yr
Standard Deviation	6.07	5.30	4.29
Mean	-2.41	0.85	1.39
Sharpe Ratio	-0.53	-0.08	0.15

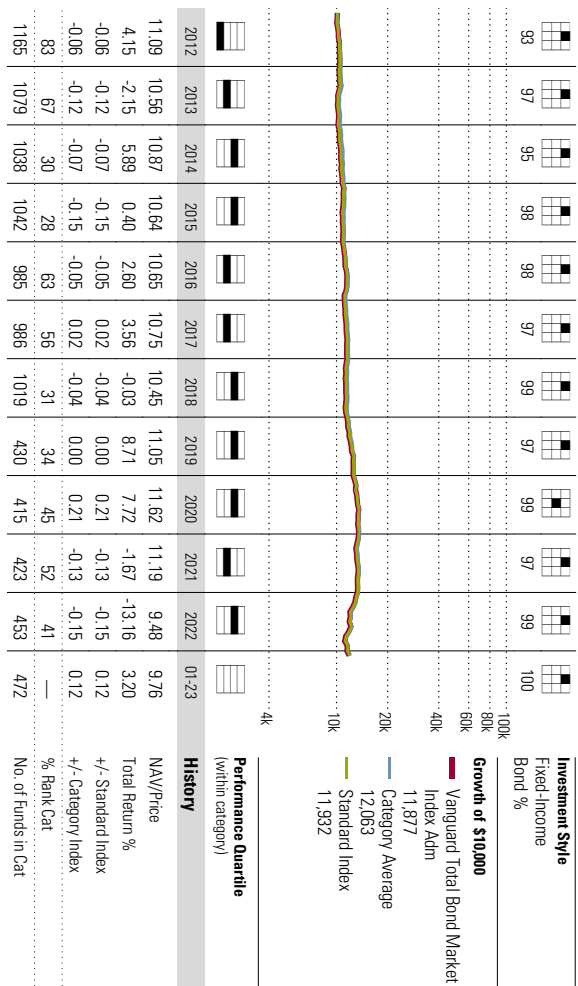
MFT Statistics	Standard Index	Best Fit Index
Alpha	-0.04	1.01
Beta	1.01	-0.04
R-Squared	99.89	99.89
12-Month Yield	2.49%	2.82%
Potential Cap Gains Exp	—	—

Operations

Family:	Vanguard
Manager:	Joshua Barrickman
Tenure:	10.0 Years
Objective:	Income

Base Currency:	USD
Ticker:	VBTLX
ISIN:	US9219376038
Minimum Initial Purchase:	\$3,000

Purchase Constraints:	—
Incept:	11-12-2001
Type:	MF
Total Assets:	\$81,194.82 mil



Portfolio Analysis 01-31-2023

Asset Allocation %	Net %	Long %	Short %	Share Cng	Share	Holdings:	Net Assets
Cash	0.36	0.37	0.01	since	0 Total Stocks	14,488 Total Fixed-Income,	%
US Stocks	0.00	0.00	0.00	12-2022	69% Turnover Ratio		
Non-US Stocks	0.00	0.00	0.00	1,913 mil	United States Treasury Notes	4,125%	0.70
Bonds	99.61	99.78	0.17	1,932 mil	United States Treasury Notes	0.75%	0.61
Other/Not Cstfd	0.03	0.03	0.00	1,676 mil	United States Treasury Notes	1.375%	0.49
Total	100.00	100.18	0.18	1,470 mil	United States Treasury Notes	2%	0.49
				1,658 mil	United States Treasury Notes	0.875%	0.48
				1,536 mil	United States Treasury Notes	1.25%	0.47
				1,399 mil	United States Treasury Notes	2.75%	0.46
				1,478 mil	United States Treasury Notes	1.875%	0.45
				1,304 mil	United States Treasury Notes	2%	0.44
				1,463 mil	United States Treasury Notes	1.25%	0.43
				1,278 mil	United States Treasury Notes	2.875%	0.42
				1,230 mil	United States Treasury Notes	1.5%	0.41
				1,326 mil	United States Treasury Notes	1.625%	0.40
				1,258 mil	United States Treasury Notes	1.5%	0.39
				1,322 mil	United States Treasury Notes	0.625%	0.37

Equity Style	Portfolio Statistics	Port Index	Rel Cat
Value Blend Growth	P/E Ratio TTM	—	—
Large	P/C Ratio TTM	—	—
Mid	P/B Ratio TTM	—	—
Small	Geo Avg Mkt Cap	—	—
Mid	—	—	—
Low	—	—	—

Sector Weightings	Stocks %	Rel Std Index
Cyclical	—	—
Basic Materials	—	—
Consumer Cyclical	—	—
Financial Services	—	—
Real Estate	—	—
Sensitive	—	—
Communication Services	—	—
Energy	—	—
Industrials	—	—
Technology	—	—
Defensive	—	—
Consumer Defensive	—	—
Healthcare	—	—
Utilities	—	—

Fixed-Income Style

LT	Med	Ext
High	Med	Low

Credit Quality Breakdown

Credit Quality Breakdown	12-31-2022	Bond %
AAA	70.98	—
AA	2.94	—
A	11.97	—
BBB	14.14	—
BB	0.00	—
B	0.00	—
Below B	0.00	—
NR	-0.03	—

Regional Exposure	Stocks %	Rel Std Index
Americas	—	—
Greater Europe	—	—
Greater Asia	—	—

Denotive	Stocks %	Rel Std Index
Consumer Defensive	—	—
Healthcare	—	—
Utilities	—	—

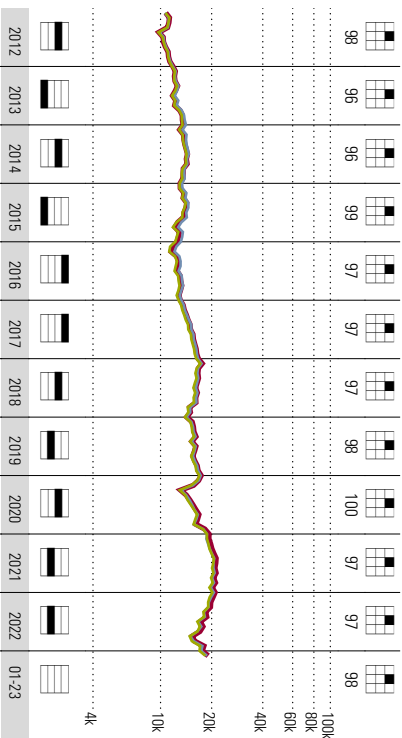
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Vanguard Total Intl Stock Index Admiral (USD)

Morningstar Analyst Rating™ Overall **Morningstar Rating™** **Standard Index** **Category Index** **Morningstar Cat**
Gold **★★★★** 702 US Fund Foreign Large **USA NR USD** **USA NR USD** **USA NR USD** **Blend**

Performance 01-31-2023					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2021	3.94	5.52	-3.00	2.11	8.62
2022	-6.08	-12.96	-10.51	14.67	-16.01
2023	—	—	—	—	8.44



Investment Style	
Equity	Stocks %
Vanguard Total Intl Stock	100%
Index Admiral	19,083
Category Average	18,794
Standard Index	18,340

7-day Yield — Subsidized
 30-day SEC Yield — Unsubsidized

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 future 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.

Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-662-7447 or visit www.vanguard.com.

Sales Charges		Front-End Load %		Deferred Load %	
NA	NA	NA	NA	NA	NA

Fund Expenses		Management Fees %		1201 Expense %		Net Expense Ratio %		Gross Expense Ratio %	
0.10	NA	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11

Risk and Return Profile	
Morningstar Rating™	3★
Morningstar Risk	3★
Morningstar Return	3★

MPT Statistics		Standard Index		Best Fit Index	
Alpha	0.76	MSCI ACWI Ex USA	NR USD	NR USD	NR USD
Beta	1.03	MSCI ACWI Ex USA	NR USD	NR USD	NR USD
R-Squared	98.80	MSCI ACWI Ex USA	NR USD	NR USD	NR USD
12-Month Yield	—	MSCI ACWI Ex USA	NR USD	NR USD	NR USD
Potential Cap Gains Exp	-14.38%	MSCI ACWI Ex USA	NR USD	NR USD	NR USD

Portfolio Analysis 01-31-2023	
Asset Allocation %	Net %
Cash	1.89
US Stocks	0.69
Non-US Stocks	97.31
Bonds	0.00
Other/Not Cstfd	0.11
Total	100.00

Equity Style		Portfolio Statistics	
Value	Share Growth	P/E Ratio TTM	12.3
Large	Mid	P/C Ratio TTM	8.8
High	Med	P/B Ratio TTM	1.6
Med	Low	Geo Avg Mkt Cap	27508
Low	Small	Geo Avg Mkt Cap	0.63

Fixed-Income Style		Credit Quality Breakdown	
AAA	AAA	AAA	AAA
AA	AA	AA	AA
A	A	A	A
BBB	BBB	BBB	BBB
BB	BB	BB	BB
B	B	B	B
Below B	Below B	Below B	Below B

Regional Exposure		Sector Weights	
Americas	10.6	Cyclical	43.5
Greater Europe	43.1	Consumer Materials	8.7
Greater Asia	46.3	Consumer Cyclical	11.5
		Financial Services	19.8
		Real Estate	3.5
		Sensitive	36.6
		Communication Services	5.9
		Energy	5.5
		Industrials	13.6
		Technology	11.6
		Defensive	19.9
		Consumer Defensive	7.7
		Healthcare	9.1
		Utilities	3.0

Operations		Purchase Constraints:	
Family:	Vanguard	Incept:	11-29-2010
Manager:	Multiple	Type:	MF
Tenure:	14.5 Years	Total Assets:	\$54,811.63 mil
Objective:	Foreign Stock		

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Western Asset Core Plus Bond I (USD)

Morningstar Analyst Rating™ Overall Morningstar Rating™ Standard Index
Bronze 1-23-2022 **★★★★** 562 US Fund Intermediate Agg Bond FR USD **Category Index** Bloomberg US Bond I **Morningstar Cat** US Fund Intermediate Core-Plus Bond **Universal FR USD**

Performance 01-31-2023					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2021	-4.53	2.88	0.00	-0.13	-1.90
2022	-8.83	-7.83	-6.37	3.24	-18.77
2023	—	—	—	—	4.93
Trailing Returns					
	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-12.45	-3.50	0.37	2.06	4.93
Std 12-31-2022	-18.77	—	-0.73	1.55	4.74
Total Return	-12.45	-3.50	0.37	2.06	4.93
+/- Std Index	-4.09	-1.15	-0.50	0.62	—
+/- Cat Index	-4.16	-1.37	-0.62	0.36	—
% Rank Cat	98	96	84	20	—
No. in Cat	621	562	512	369	—

7-day Yield 02-07-23 **4.32**¹
 30-day SEC Yield 12-31-22 **4.73**¹
 1. Contractual yielder. Expires 12-31-2023

Performance Disclosure
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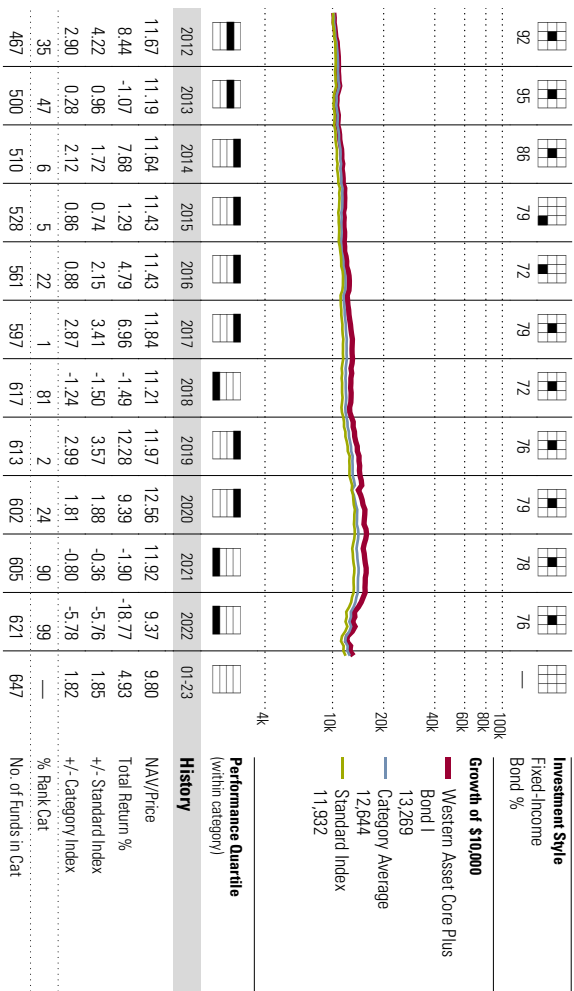
Fees and Expenses	
Sales Charges	NA
Front-End Load %	NA
Deferred Load %	NA
Fund Expenses	0.40
Management Fees %	NA
1201 Expense %	0.45
Net Expense Ratio %	0.45
Gross Expense Ratio %	0.52
Risk and Return Profile	

Morningstar Rating™			
Morningstar Rating™	1★	1★	4★
Morningstar Risk	High	High	High
Morningstar Return	Low	-Avg	+Avg

	3 Yr	5 Yr	10 Yr
Standard Deviation	9.40	7.80	5.96
Mean	-3.50	0.37	2.06
Shapre Ratio	-0.43	-0.09	0.23

MPI Statistics	Standard Index	Best Fit Index
Alpha	0.54	0.28
Beta	1.47	1.50
R-Squared	88.68	96.33
12-Month Yield		3.42%
Potential Cap Gains Exp		1.32%

Operations
 Family: Franklin Templeton Investments
 Manager: Multiple
 Tenure: 16.2 Years
 Objective: Corporate Bond - General
 Base Currency: USD



Portfolio Analysis 12-31-2022			
Asset Allocation %	Net %	Long %	Short %
Cash	-4.75	33.00	37.75
US Stocks	-0.08	0.42	0.50
Non-US Stocks	0.00	0.00	0.00
Bonds	104.19	106.76	2.57
Other/Not Clsfd	0.64	0.64	0.00
Total	100.00	140.82	40.82

Equity Style	Portfolio Statistics	Port	Rel	Rel
Value Brand Growth	P/E Ratio TTM	Avg	Index	Cat
Large	P/C Ratio TTM	—	—	—
Mid	P/B Ratio TTM	—	—	—
Small	Geo Avg Mkt Cap	—	—	—

Fixed-Income Style		Credit Quality Breakdown 12-31-2022	
Mid	Ext	High	Med
Low	Med	Low	—
Avg Eff Maturity	15.72		
Avg Eff Duration	7.66		
Avg Wtd Coupon	4.14		
Avg Wtd Price	88.19		

Share Clng	Share	Holdings:	Net Assets
09-2022	Amount	2 Total Stocks: 2,796 Total Fixed-Income, 79% Turnover Ratio	%
⊕	1,268 mil	Western Asset Peam Inst Govtr Rsr	5.00
⊕	448 mil	United States Treasury Bonds 4%	1.74
⊕	530 mil	United States Treasury Bonds 2.875%	1.71
⊕	8,207 mil	Mexico (United Mexican States) 7.7	1.46
⊕	1,953 mil	China (People's Republic of) 3.29%	1.15
⊕	518 mil	United States Treasury Bonds 1.25%	1.11
⊕	6,081 mil	Mexico (United Mexican States) 8%	1.10
⊕	436 mil	United States Treasury Bonds 1.375%	0.97
⊕	262 mil	United States Treasury Bonds 3.625%	0.97
⊕	3,650,281 mil	Indonesia (Republic of) 6.5%	0.92
⊕	215 mil	United States Treasury Bonds 1.75%	0.59
⊕	2,887 mil	Mexico (United Mexican States) 7.7	0.53
⊕	147 mil	Index Swap - 1d-Softrate 10 Bps	-0.50
⊕	139 mil	Wells Fargo & Company 5.013%	0.50
⊕	1,675,317 mil	Indonesia (Republic of) 7%	0.44

Sector Weightings	Stocks %	Rel Std Index
🔄 Cyclical	—	—
🏠 Basic Materials	—	—
🏪 Consumer Cyclical	—	—
🏢 Financial Services	—	—
🏡 Real Estate	—	—
👤 Sensitive	—	—
📡 Communication Services	—	—
⚡ Energy	—	—
🏭 Industrials	—	—
💻 Technology	—	—
🛡️ Defensive	—	—
🏥 Consumer Defensive	—	—
🏥 Healthcare	—	—
🏠 Utilities	—	—

Operations
 Ticker: WACPX
 SIN: US957663034
 Minimum Initial Purchase: \$1 mil
 Min Auto Investment Plan: \$1 mil
 Minimum IRA Purchase: \$1 mil
 Purchase Constraints: —
 Incept: 07-08-1998
 Type: MF
 Total Assets: \$27,348.63 mil

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Westwood Quality SmallCap Fund Inst (USD)

Morningstar Analyst Rating™ Overall Morningstar Rating™
Silver 10-06-2022

Standard Index S&P 500 TR USD
Category Index Russell 2000 TR USD
Morningstar Cat US Fund Small Blend

Performance 01-31-2023					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2021	16.93	4.75	-3.33	8.04	27.33
2022	-7.93	-11.48	-5.40	13.55	-12.46
2023	—	—	—	—	7.46

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	0.55	8.60	5.53	10.39	7.74
Std 12-31-2022	-12.46	—	4.54	10.37	7.29
Total Return	0.55	8.60	5.53	10.39	7.74
+/- Std Index	8.77	-1.28	-4.01	-2.29	—
+/- Cat Index	3.93	1.10	0.00	1.02	—
% Rank Cat	27	66	70	22	—
No. in Cat	613	588	543	364	—

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.
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 Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 877-386-3944.

7-day Yield	Subsidized	Unsubsidized
30-day SEC Yield	—	—

Front-End Load %	NA
Deferred Load %	NA

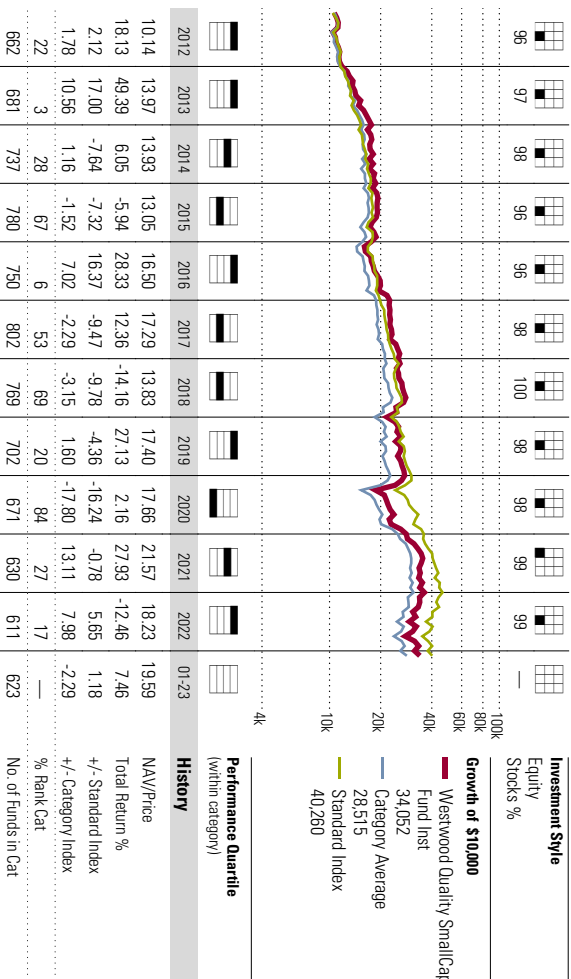
Fund Expenses	0.85
Management Fees %	0.85
12b1 Expense %	NA
Net Expense Ratio %	0.92
Gross Expense Ratio %	1.09

Risk and Return Profile					
Morningstar Rating™	3 Yr	5 Yr	10 Yr	3 Yr	5 Yr
Morningstar Rating™	2★	2★	4★	2★	2★
Morningstar Risk	Avg	Avg	+Avg	Avg	Avg
Morningstar Return	Avg	-Avg	+Avg	Avg	+Avg

Standard Deviation	3 Yr	5 Yr	10 Yr
Standard Deviation	26.41	23.48	19.31
Mean	8.60	5.53	10.39
Shapero Ratio	0.41	0.29	0.57

MFT Statistics	Standard Index	Best Fit Index
Alpha	-1.04	Bid Val Ext IR USD -2.32
Beta	1.11	0.87
R-Squared	80.46	95.90
12-Month Yield	—	—
Potential Cap Gains Exp	6.58%	—

Operations	
Family:	Westwood
Manager:	Multiple
Tenure:	12.2 Years
Objective:	Growth
Base Currency:	USD



Portfolio Analysis 12-31-2022		
Asset Allocation %	Net %	Long %
Cash	0.74	0.74
US Stocks	98.03	98.03
Non-US Stocks	1.23	1.23
Bonds	0.00	0.00
Other/Not Cstfd	0.00	0.00
Total	100.00	100.00

Equity Style		
Value	Brand	Growth
Large	Med	Small
High	Mid	Low

Fixed-Income Style		
Value	Brand	Growth
Large	Med	Small
High	Mid	Low

Credit Quality Breakdown		
AAA	—	—
AA	—	—
A	—	—
BBB	—	—
BB	—	—
B	—	—
Below B	—	—
NR	—	—

Regional Exposure		
Region	Stocks %	Rel Std Index
Americas	100.0	1.01
Greater Europe	0.0	0.00
Greater Asia	0.0	0.00

Sector Weightings	
Cyclical	52.3
Basic Materials	6.9
Consumer Cyclical	10.9
Financial Services	23.3
Real Estate	11.2
Sensitive	28.2
Communication Services	1.9
Energy	7.4
Industrials	12.7
Technology	6.2
Defensive	19.5
Consumer Defensive	7.3
Healthcare	7.8
Utilities	4.4

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If adjusted for taxation, the performance quoted would be significantly reduced. For variable annuities, additional expenses will be taken into account, including M&E risk charges, fund-level expenses such as management fees and operating fees, contract-level administration fees, and charges such as surrender, contract, and sales charges. The maximum redemption fee is the maximum amount a fund may charge if redeemed in a specific time period after the fund's purchase.

After-tax returns are calculated using the highest individual federal marginal income tax rates, and do not reflect the impact of state and local taxes. Actual after-tax returns depend on the investor's tax situation and may differ from those shown. The after-tax returns shown are not relevant to investors who hold their fund shares through tax-deferred arrangements such as 401(k) plans or an IRA. After-tax returns exclude the effects of either the alternative minimum tax or phase-out of certain tax credits. Any taxes due are as of the time the distributions are made, and the taxable amount and tax character of each distribution are as specified by the fund on the dividend declaration date. Due to foreign tax credits or realized capital losses, after-tax returns may be greater than before-tax returns. After-tax returns for exchange-traded funds are based on net asset value.

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If money market fund(s) are included in the Standardized Returns table below, each money market fund's name will be followed by a superscripted letter that links it to the applicable disclosure below:

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You could lose money by investing in the fund. Because the share price of the fund will fluctuate, when you sell your shares they may be worth more or less than what you originally paid for them. The fund may impose a fee upon sale of your shares or may temporarily suspend your ability to sell shares if the fund's liquidity falls below required minimums because of market conditions or other factors. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Government Money Market Funds that have chosen to rely on the ability to impose liquidity fees and suspend redemptions (designated by an "L") and

You could lose money by investing in the fund. Although the fund seeks to preserve the value of your investment at \$1.00 per share, it cannot guarantee it will do so. The fund may impose a fee upon sale of your shares or may temporarily suspend your ability to sell shares if the fund's liquidity falls below required minimums because of market conditions or other factors. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Government Money Market Funds that have chosen not to rely on the ability to impose liquidity fees and suspend redemptions (designated by an "N"):

You could lose money by investing in the fund. Although the fund seeks to preserve the value of your investment at \$1.00 per share, it cannot guarantee it will do so. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Annualized returns 12-31-2022	7-day Yield	7-day Yield	1Yr	5Yr	10Yr	Since Inception	Inception Date	Max Front Load %	Max Back Load %	Net Exp Ratio %	Gross Exp Ratio %	Max Redemption %
	Subsidized as of date	Unsubsidized as of date										
Allspring Special Mid Cap Value R6	—	—	-4.50	8.45	—	10.72	06-28-2013	NA	NA	0.69	0.69	NA
American Beacon Large Cap Value R6	—	—	-5.24	7.43	—	8.53	02-28-2017	NA	NA	0.60	0.60	NA
American Beacon SIM High Yld Opps R5	—	—	-6.97	3.67	4.92	5.71	02-14-2011	NA	NA	0.75 ¹	0.82	NA
American Funds Europacific Growth R6	—	—	-22.72	1.54	5.30	7.25	05-01-2009	NA	NA	0.46	0.46	NA
Artisan Small Cap Institutional	—	—	-29.28	8.44	11.17	11.04	05-07-2012	NA	NA	0.98	0.98	NA
Dodge & Cox International Stock X	—	—	-6.72	—	—	-0.96	05-02-2022	NA	NA	0.52 ²	0.57	NA
Invesco Global Opportunities R6	—	—	-41.39	-2.74	8.80	8.09	01-27-2012	NA	NA	0.68	0.68	NA

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Annualized returns 12-31-2022												
Standardized Returns (%)	7-day Yield Subsidized as of date	7-day Yield Unsubsidized as of date	1Yr	5Yr	10Yr	Since Inception	Inception Date	Max Front Load %	Max Back Load %	Net Exp Ratio %	Gross Exp Ratio %	Max Redemption %
JPMorgan Mid Cap Growth R6	—	—	-26.96	9.87	13.04	13.08	11-01-2011	NA	NA	0.70 ³	0.75	NA
Parnassus Core Equity Institutional	—	—	-18.45	10.66	12.64	10.46	04-28-2006	NA	NA	0.61	0.61	NA
PIMCO Real Return Instl	—	—	-11.86	2.12	1.04	5.17	01-29-1997	NA	NA	0.47	0.47	NA
T. Rowe Price Lrg Cp Gr I	—	—	-35.18	8.35	13.85	9.87	10-31-2001	NA	NA	0.55	0.55	NA
Vanguard Institutional Index I	—	—	-18.14	9.40	12.53	9.85	07-31-1990	NA	NA	0.04	0.04	NA
Vanguard Mid Cap Index Admiral	—	—	-18.71	7.32	11.10	9.55	11-12-2001	NA	NA	0.05	0.05	NA
Vanguard Small Cap Index Adm	—	—	-17.61	5.94	10.11	8.62	11-13-2000	NA	NA	0.05	0.05	NA
Vanguard Target Retirement 2020 Fund	—	—	-14.15	3.22	5.83	5.52	06-07-2006	NA	NA	0.08	0.08	NA
Vanguard Target Retirement 2025 Fund	—	—	-15.55	3.58	6.43	6.13	10-27-2003	NA	NA	0.08	0.08	NA
Vanguard Target Retirement 2030 Fund	—	—	-16.27	3.94	6.99	6.02	06-07-2006	NA	NA	0.08	0.08	NA
Vanguard Target Retirement 2035 Fund	—	—	-16.62	4.34	7.57	6.83	10-27-2003	NA	NA	0.08	0.08	NA
Vanguard Target Retirement 2040 Fund	—	—	-16.98	4.74	8.06	6.59	06-07-2006	NA	NA	0.08	0.08	NA
Vanguard Target Retirement 2045 Fund	—	—	-17.36	5.14	8.34	7.40	10-27-2003	NA	NA	0.08	0.08	NA
Vanguard Target Retirement 2050 Fund	—	—	-17.46	5.18	8.36	6.79	06-07-2006	NA	NA	0.08	0.08	NA
Vanguard Target Retirement 2055 Fund	—	—	-17.46	5.18	8.34	8.97	08-18-2010	NA	NA	0.08	0.08	NA
Vanguard Target Retirement 2060 Fund	—	—	-17.46	5.18	8.34	8.59	01-19-2012	NA	NA	0.08	0.08	NA
Vanguard Target Retirement 2065 Fund	—	—	-17.39	5.15	—	6.42	07-12-2017	NA	NA	0.08	0.08	NA
Vanguard Target Retirement 2070 Fund	—	—	—	—	—	1.02	06-28-2022	NA	NA	0.08	0.08	NA
Vanguard Target Retirement Income Fund	—	—	-12.74	2.30	3.62	4.57	10-27-2003	NA	NA	0.08	0.08	NA
Vanguard Total Bond Market Index Adm	—	—	-13.16	-0.01	1.00	3.19	11-12-2001	NA	NA	0.05	0.05	NA
Vanguard Total Intl Stock Index Admiral	—	—	-16.01	1.09	4.06	4.02	11-29-2010	NA	NA	0.11	0.11	NA
Western Asset Core Plus Bond I	—	—	-18.77	-0.73	1.55	4.74	07-08-1998	NA	NA	0.45 ⁴	0.52	NA
Westwood Quality SmallCap Fund Inst	—	—	-12.46	4.54	10.37	7.29	04-02-2007	NA	NA	0.92 ⁵	1.09	NA
Bloomberg US Agg Bond TR USD			-13.01	0.02	1.06	—	01-03-1980					
Bloomberg US Treasury US TIPS TR USD			-11.85	2.11	1.12	—	04-15-1998					
Bloomberg US Universal TR USD			-12.99	0.18	1.33	—	12-31-1998					
ICE BofA US High Yield TR USD			-11.22	2.12	3.94	—	08-29-1986					
Morningstar Gbl Allocation TR USD			-17.10	2.86	—	—	06-18-2013					
Morningstar Gbl xUS Growth TME NR USD			-21.72	—	—	—	11-24-2021					
Morningstar Lifetime Mod 2020 TR USD			-16.77	3.02	5.16	—	02-18-2009					
Morningstar Lifetime Mod 2025 TR USD			-17.58	3.20	5.79	—	02-18-2009					
Morningstar Lifetime Mod 2030 TR USD			-17.94	3.54	6.51	—	02-18-2009					
Morningstar Lifetime Mod 2035 TR USD			-17.75	3.97	7.14	—	02-18-2009					
Morningstar Lifetime Mod 2040 TR USD			-17.37	4.36	7.55	—	02-18-2009					
Morningstar Lifetime Mod 2045 TR USD			-17.06	4.58	7.70	—	02-18-2009					
Morningstar Lifetime Mod 2050 TR USD			-16.91	4.62	7.68	—	02-18-2009					
Morningstar Lifetime Mod 2055 TR USD			-16.93	4.55	7.59	—	02-18-2009					
Morningstar Lifetime Mod 2060 TR USD			-16.98	4.46	—	—	06-23-2014					
Morningstar Lifetime Mod Incm TR USD			-12.24	2.95	3.82	—	02-18-2009					
Morningstar Mod Tgt Risk TR USD			-14.77	3.73	5.82	—	02-18-2009					
Morningstar US Core Bd TR USD			-12.99	—	—	—	05-01-2019					
Morningstar US LM Brd Growth TR USD			-31.71	—	—	—	12-21-2020					
Morningstar US Mid Brd Grt TR USD			-25.83	—	—	—	12-21-2020					
Morningstar US Mod Con Tgt Alloc NR USD			-14.06	—	—	—	06-30-2020					
Morningstar US Sml Brd Val Ext TR USD			-10.45	—	—	—	12-21-2020					
Morningstar US Sml Ext TR USD			-19.26	—	—	—	12-21-2020					
MSCI ACWI Ex USA Growth NR USD			-23.05	1.49	4.68	—	01-01-2001					
MSCI ACWI Ex USA NR USD			-16.00	0.88	3.80	—	01-01-2001					
MSCI ACWI Ex USA Value NR USD			-8.59	-0.05	2.72	—	01-01-2001					
MSCI ACWI NR USD			-18.36	5.23	7.98	—	01-01-2001					
MSCI ACWI SMID NR USD			-18.72	3.38	7.50	—	05-31-1994					
MSCI EAFE NR USD			-14.45	1.54	4.67	—	03-31-1986					

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Annualized returns 12-31-2022												
Standardized Returns (%)	7-day Yield		1Yr	5Yr	10Yr	Since Inception	Inception Date	Max Front Load %	Max Back Load %	Net Exp Ratio %	Gross Exp Ratio %	Max Redemption %
	Subsidized as of date	Unsubsidized as of date										
Russell 1000 Growth TR USD	-23.14	10.96	14.10	—	01-01-1987							
Russell 1000 TR USD	-19.13	9.13	12.37	—	12-31-1978							
Russell 1000 Value TR USD	-7.54	6.67	10.29	—	01-01-1987							
Russell 2000 Growth TR USD	-26.36	3.51	9.20	—	12-31-1978							
Russell 2000 TR USD	-20.44	4.13	9.01	—	12-31-1978							
Russell Mid Cap Growth TR USD	-26.72	7.64	11.41	—	02-01-1995							
Russell Mid Cap TR USD	-17.32	7.10	10.96	—	12-31-1978							
Russell Mid Cap Value TR USD	-12.03	5.72	10.11	—	12-31-1985							
S&P 500 TR USD	-18.11	9.42	12.56	—	01-30-1970							
USTREAS T-Bill Auction Ave 3 Mon	2.14	1.34	0.82	—	02-28-1941							

1. Contractual waiver; Expires 12-31-2023
2. Contractual waiver; Expires 04-30-2023
3. Contractual waiver; Expires 10-31-2023
4. Contractual waiver; Expires 12-31-2023
5. Contractual waiver; Expires 03-01-2024

	On Distribution						On Distribution and Sales of Shares					
	1Yr	5Yr	10Yr	Since Inception	Inception Date	1Yr	5Yr	10Yr	Since Inception	10Yr	Since Inception	
Allspring Special Mid Cap Value R6	-6.63	6.90	—	8.93	06-28-2013	-1.61	6.33	—	8.15	—	8.15	
American Beacon Large Cap Value R6	-7.92	4.33	—	5.32	02-28-2017	-1.68	5.12	—	5.96	—	5.96	
American Beacon SIM High Yld Opps R5	-9.09	1.15	2.13	2.90	02-14-2011	-4.12	1.73	2.52	3.18	2.52	3.18	
American Funds Europacific Growth R6	-23.28	0.41	4.33	6.35	05-01-2009	-13.38	1.14	4.10	5.80	4.10	5.80	
Artisan Small Cap Institutional	-29.41	6.33	9.45	9.42	05-07-2012	-17.33	6.66	9.09	9.02	9.09	9.02	
Dodge & Cox International Stock X	—	—	—	-1.88	05-02-2022	—	—	—	—	—	-0.57	
Invesco Global Opportunities R6	-41.39	-4.08	7.68	7.02	01-27-2012	-24.50	-1.78	7.29	6.67	7.29	6.67	
JPMorgan Mid Cap Growth R6	-27.08	8.09	11.28	11.29	11-01-2011	-15.86	7.74	10.51	10.59	10.51	10.59	
Parnassus Core Equity Institutional	-20.34	8.44	10.70	8.98	04-28-2006	-9.69	8.17	10.07	8.53	10.07	8.53	
PIMCO Real Return Instl	-14.80	0.42	-0.24	3.25	01-29-1997	-6.93	0.96	0.26	3.31	0.26	3.31	
T. Rowe Price Lrg Cp Gr I	-35.75	7.32	12.67	9.23	10-31-2001	-20.41	6.42	11.32	8.41	11.32	8.41	
Vanguard Institutional Index I	-18.77	8.50	11.72	9.12	07-31-1990	-10.28	7.37	10.28	8.49	10.28	8.49	
Vanguard Mid Cap Index Admiral	-19.02	6.89	10.63	9.17	11-12-2001	-10.87	5.68	9.06	8.18	9.06	8.18	
Vanguard Small Cap Index Adm	-17.95	5.52	9.61	8.04	11-13-2000	-10.25	4.56	8.16	7.17	8.16	7.17	
Vanguard Target Retirement 2020 Fund	-15.36	1.25	4.34	4.39	06-07-2006	-7.92	2.33	4.38	4.26	4.38	4.26	
Vanguard Target Retirement 2025 Fund	-16.29	2.05	5.15	5.18	10-27-2003	-8.95	2.64	4.89	4.84	4.89	4.84	
Vanguard Target Retirement 2030 Fund	-16.88	2.52	5.82	5.14	06-07-2006	-9.40	2.96	5.40	4.75	5.40	4.75	
Vanguard Target Retirement 2035 Fund	-17.25	2.87	6.35	5.96	10-27-2003	-9.57	3.31	5.90	5.53	5.90	5.53	
Vanguard Target Retirement 2040 Fund	-17.58	3.28	6.90	5.73	06-07-2006	-9.79	3.66	6.36	5.29	6.36	5.29	
Vanguard Target Retirement 2045 Fund	-17.97	3.89	7.29	6.63	10-27-2003	-9.98	3.97	6.59	6.07	6.59	6.07	
Vanguard Target Retirement 2050 Fund	-18.00	4.06	7.41	6.05	06-07-2006	-10.08	3.99	6.61	5.47	6.61	5.47	
Vanguard Target Retirement 2055 Fund	-17.96	4.19	7.50	8.21	08-18-2010	-10.11	3.97	6.62	7.28	6.62	7.28	
Vanguard Target Retirement 2060 Fund	-17.94	4.38	7.61	7.90	01-19-2012	-10.12	3.93	6.60	6.87	6.60	6.87	
Vanguard Target Retirement 2065 Fund	-17.85	4.61	—	5.88	07-12-2017	-10.09	3.92	—	4.94	—	4.94	
Vanguard Target Retirement 2070 Fund	—	—	—	0.76	06-28-2022	—	—	—	0.72	—	0.72	
Vanguard Target Retirement Income Fund	-13.67	0.94	2.44	3.43	10-27-2003	-7.40	1.47	2.49	3.28	2.49	3.28	
Vanguard Total Bond Market Index Adm	-14.02	-1.01	-0.06	1.82	11-12-2001	-7.76	-0.38	0.32	1.94	0.32	1.94	
Vanguard Total Intl Stock Index Admiral	-16.73	0.27	3.10	3.00	11-29-2010	-9.18	0.70	2.90	2.83	2.90	2.83	
Western Asset Core Plus Bond I	-19.85	-2.23	0.03	2.85	07-08-1998	-11.08	-1.04	0.59	2.96	0.59	2.96	
Westwood Quality SmallCap Fund Inst	-13.42	3.40	8.98	6.28	04-02-2007	-7.08	3.14	7.99	5.65	7.99	5.65	

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Mutual Fund Detail Report

Disclosure Statement

The Mutual Fund Detail Report is supplemental sales literature, and therefore must be preceded or accompanied by the mutual fund's current prospectus or an equivalent statement. Please read this information carefully. In all cases, this disclosure statement should accompany the Mutual Fund Detail Report. Morningstar is not itself a FINRA-member firm.

All data presented is based on the most recent information available to Morningstar as of the release date and may or may not be an accurate reflection of current data for securities included in the fund's portfolio. There is no assurance that the data will remain the same.

Unless otherwise specified, the definition of "funds" used throughout this Disclosure Statement includes closed-end funds, exchange-traded funds, grantor trusts, index mutual funds, open-ended mutual funds, and unit investment trusts. It does not include exchange-traded notes or exchange-traded commodities.

Prior to 2016, Morningstar's methodology evaluated open-end mutual funds and exchange-traded funds as separate groups. Each group contained a subset of the current investments included in our current comparative analysis. In this report, historical data presented on a calendar-year basis and trailing periods ending at the most-recent month-end reflect the updated methodology.

Risk measures (such as alpha, beta, r-squared, standard deviation, mean, or Sharpe ratio) are calculated for securities or portfolios that have at least a three-year history.

Most Morningstar rankings do not include any adjustment for one-time sales charges, or loads. Morningstar does publish load-adjusted returns, and ranks such returns within a Morningstar Category in certain reports. The total returns for ETFs and fund share classes without one-time loads are equal to Morningstar's calculation of load-adjusted returns. Share classes that are subject to one-time loads relating to advice or sales commissions have their returns adjusted as part of the load-adjusted return calculation to reflect those loads.

Comparison of Fund Types

Funds, including closed-end funds, exchange-traded funds (ETFs), money market funds, open-end funds, and unit investment trusts (UITs), have many similarities, but also many important differences. In general, publically-offered funds are investment companies registered with the Securities and Exchange Commission under the Investment Company Act of 1940, as amended. Funds pool money from their investors and manage it according to an investment strategy or objective, which can vary greatly from fund to fund. Funds have the ability to offer diversification and professional management, but also involve risk, including the loss of principal.

A closed-end fund is an investment company, which typically makes one public offering of a fixed number of shares. Thereafter, shares are traded on a secondary market. As a result, the secondary market price may be higher or lower than the closed-end fund's net asset value (NAV). If these shares trade at a price above their NAV, they are said to be trading at a premium. Conversely, if they are trading at a price below their NAV, they are said to be trading at a discount. A closed-end mutual fund's expense ratio is an annual fee charged to a shareholder. It includes operating expenses and management fees, but does not take into account any brokerage costs. Closed-end funds may also have 12b-1 fees. Income distributions and capital gains of the closed-end fund are subject

to income tax, if held in a taxable account.

An ETF is an investment company that typically has an investment objective of striving to achieve a similar return as a particular market index. The ETF will invest in either all or a representative sample of the securities included in the index it is seeking to imitate. Like closed-end funds, an ETF can be traded on a secondary market and thus have a market price that may be higher or lower than its net asset value. If these shares trade at a price above their NAV, they are said to be trading at a premium. Conversely, if they are trading at a price below their NAV, they are said to be trading at a discount. ETFs are not actively managed, so their value may be affected by a general decline in the U.S. market segments relating to their underlying indexes. Similarly, an imperfect match between an ETF's holdings and those of its underlying index may cause its performance to vary from that of its underlying index. The expense ratio of an ETF is an annual fee charged to a shareholder. It includes operating expenses and management fees, but does not take into account any brokerage costs. ETFs do not have 12b-1 fees or sales loads. Capital gains from funds held in a taxable account are subject to income tax. In many, but not all cases, ETFs are generally considered to be more tax-efficient when compared to similarly invested mutual funds.

Holding company depository receipts (HOLDRS) are similar to ETFs, but they focus on narrow industry groups. HOLDRS initially own 20 stocks, which are unmanaged, and can become more concentrated due to mergers, or the disparate performance of their holdings. HOLDRS can only be bought in 100-share increments. Investors may exchange shares of a HOLDR for its underlying stocks at any time.

A money-market fund is an investment company that invests in commercial paper, banker's acceptances, repurchase agreements, government securities, certificates of deposit and other highly liquid securities, and pays money market rates of interest. Money markets are not FDIC-insured, may lose money, and are not guaranteed by a bank or other financial institution.

An open-end fund is an investment company that issues shares on a continuous basis. Shares can be purchased from the open-end mutual fund itself, or through an intermediary, but cannot be traded on a secondary market, such as the New York Stock Exchange. Investors pay the open-end mutual fund's current net asset value plus any initial sales loads. Net asset value is calculated daily, at the close of business. Open-end mutual fund shares can be redeemed, or sold back to the fund or intermediary, at their current net asset value minus any deferred sales loads or redemption fees. The expense ratio for an open-end mutual fund is an annual fee charged to a shareholder. It includes operating expenses and management fees, but does not take into account any brokerage costs. Open-end funds may also have 12b-1 fees. Income distributions and capital gains of the open-end fund are subject to income tax, if held in a taxable account.

A unit investment trust (UIT) is an investment company organized under a trust agreement between a sponsor and trustee. UITs typically purchase a fixed portfolio of securities and then sell units in the trust to investors. The major difference between a UIT and a mutual fund is that a mutual fund is actively managed, while a UIT is not. On a periodic basis, UITs usually distribute to the unit holder their pro rata share of the trust's net investment income and net realized capital gains, if any. If the trust is one that invests only in tax-free securities, then the income from the trust is also tax-free. UITs generally make one public offering of a fixed number of units. However, in some cases, the sponsor will maintain a secondary market that allows existing unit holders to sell their units and for new investors to buy units. A one-time initial sales charge is deducted from an investment made into the trust. UIT investors may also pay creation and development fees, organization costs, and/or trustee and operation expenses. UIT units may be redeemed by the sponsor at their net

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asset value minus a deferred sales charge, and sold to other investors. UITs have set termination dates, at which point the underlying securities are sold and the sales proceeds are paid to the investor. Typically, a UIT investment is rolled over into successive trusts as part of a long-term strategy. A rollover fee may be charged for the exercise of rollover purchases. There are tax consequences associated with rolling over an investment from one trust to the next.

Performance

The performance data given represents past performance and should not be considered indicative of future results. Principal value and investment return will fluctuate, so that an investor's shares, when sold, may be worth more or less than the original investment. Fund portfolio statistics change over time. Funds are not FDIC-insured, may lose value, and are not guaranteed by a bank or other financial institution.

Morningstar calculates after-tax returns using the highest applicable federal marginal income tax rate plus the investment income tax and Medicare surcharge. As of 2018, this rate is 37% plus 3.8% investment income plus 0.9% Medicare surcharge, or 41.7%. This rate changes periodically in accordance with changes in federal law.

Pre-Inception Returns

The analysis in this report may be based, in part, on adjusted historical returns for periods prior to the inception of the share class of the fund shown in this report ("Report Share Class"). If pre-inception returns are shown, a performance stream consisting of the Report Share Class and older share classes) is created. Morningstar adjusts pre-inception returns downward to reflect higher expenses in the Report Share Class, we do not hypothetically adjust returns upwards for lower expenses. For more information regarding calculation of pre-inception returns please see the Morningstar Extended Performance Methodology.

When pre-inception data is presented in the report, the header at the top of the report will indicate this. In addition, the pre-inception data included in the report will appear in italics.

While the inclusion of pre-inception data provides valuable insight into the probable long-term behavior of newer share classes of a fund, investors should be aware that an adjusted historical return can only provide an approximation of that behavior. For example, the fee structures of a retail share class will vary from that of an institutional share class, as retail shares tend to have higher operating expenses and sales charges. These adjusted historical returns are not actual returns. The underlying investments in the share classes used to calculate the pre-performance string will likely vary from the underlying investments held in the fund after inception. Calculation methodologies utilized by Morningstar may differ from those applied by other entities, including the fund itself.

12b1 Expense %
A 12b-1 fee is a fee used to pay for a mutual fund's distribution costs. It is often used as a commission to brokers for selling the fund. The amount of the fee is taken from a fund's returns.

Alpha
Alpha is a measure of the difference between a security or portfolio's actual returns and its expected performance, given its level of risk (as measured by beta.) Alpha is often seen as a measure of the value added or subtracted by a portfolio manager.

Asset Allocation

Asset Allocation reflects asset class weightings of the portfolio. The "Other"

category includes security types that are not neatly classified in the other asset classes, such as convertible bonds and preferred stocks, or cannot be classified by Morningstar as a result of missing data. Morningstar may display asset allocation data in several ways, including tables or pie charts. In addition, Morningstar may compare the asset class breakdown of the fund against its three-year average, category average, and/or index proxy.

Asset allocations shown in tables may include a breakdown among the long, short, and net (long positions net of short) positions. These statistics summarize what the fund's managers are buying and how they are positioning the fund's portfolio. When short positions are captured in these portfolio statistics, investors get a more robust description of the fund's exposure and risk. Long positions involve buying the security outright and selling it later, with the hope the security's price rises over time. Short positions are taken with the hope of benefiting from anticipated price declines. The investor borrows the security from another investor, sells it and receives cash, and then is obligated to buy it back at some point in the future. If the price falls after the short sale, the investor will have sold high and can buy low to close the short position and lock in a profit. However, if the price of the security increases after the short sale, the investor will experience a loss buying it at a higher price than the sale price.

Most fund portfolios hold fairly conventional securities, such as long positions in equities and bonds. Morningstar may generate a colored pie chart for these portfolios. Other portfolios use other investment strategies or securities, such as short positions or derivatives, in an attempt to reduce transaction costs, enhance returns, or reduce risk. Some of these securities and strategies behave like conventional securities, while other have unique return and risk characteristics. Portfolios that incorporate investment strategies resulting in short positions or portfolio with relatively exotic derivative positions often report data to Morningstar that does not meet the parameters of the calculation underlying a pie chart's generation. Because of the nature of how these securities are reported to Morningstar, we may not always get complete portfolio information to report asset allocation. Morningstar, at its discretion, may determine if unidentified characteristics of fund holdings are material. Asset allocation and other breakdowns may be rescaled accordingly so that percentages total to 100 percent. (Morningstar used discretion to determine if unidentified characteristics of fund holdings are material, pie charts and other breakdowns may rescale identified characteristics to 100% for more intuitive presentation.)

Note that all other portfolio statistics presented in this report are based on the long (or long rescaled) holdings of the fund only.

Average Effective Duration

Duration is a time measure of a bond's interest-rate sensitivity. Average effective duration is a weighted average of the duration of the fixed-income securities within a portfolio.

Average Effective Maturity

Average Effective Maturity is a weighted average of the maturities of all bonds in a portfolio.

Average Weighted Coupon

A coupon is the fixed annual percentage paid out on a bond. The average weighted coupon is the asset-weighted coupon of each bond in the portfolio.

Average Weighted Price

Average Weighted Price is the asset-weighted price of bonds held in a portfolio, expressed as a percentage of par (face) value. This number reveals if the portfolio favors bonds selling at prices above or below par value (premium or discount securities respectively.)

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Best Fit Index

Alpha, beta, and R-squared statistics are presented for a broad market index and a "best fit" index. The Best Fit Index identified in this report was determined by Morningstar by calculating R-squared for the fund against approximately 100 indexes tracked by Morningstar. The index representing the highest R-squared is identified as the best fit index. The best fit index may not be the fund's benchmark, nor does it necessarily contain the types of securities that may be held by the fund or portfolio.

Beta

Beta is a measure of a security or portfolio's sensitivity to market movements (proxied using an index.) A beta of greater than 1 indicates more volatility than the market, and a beta of less than 1 indicates less volatility than the market.

Credit Quality Breakdown

Credit Quality breakdowns are shown for corporate-bond holdings in the fund's portfolio and depict the quality of bonds in the underlying portfolio. It shows the percentage of fixed-income securities that fall within each credit-quality rating as assigned by a Nationally Recognized Statistical Rating Organization (NRSRO). Bonds not rated by an NRSRO are included in the Other/Not-Classified category.

Deferred Load %

The back-end sales charge or deferred load is imposed when an investor redeems shares of a fund. The percentage of the load charged generally declines the longer the fund's shares are held by the investor. This charge, coupled with 12b-1 fees, commonly serves as an alternative to a traditional front-end load.

Expense Ratio %

The expense ratio is the annual fee that all funds charge their shareholders. It expresses the percentage of assets deducted each fiscal year for fund expenses, including 12b-1 fees, management fees, administrative fees, operating costs, and all other asset-based costs incurred by the fund. Portfolio transaction fees, or brokerage costs, as well as front-end or deferred sales charges are not included in the expense ratio. The expense ratio, which is deducted from the fund's average net assets, is accrued on a daily basis. The gross expense ratio, in contrast to the net expense ratio, does not reflect any fee waivers in effect during the time period.

Front-end Load %

The initial sales charge or front-end load is a deduction made from each investment in the fund and is generally based on the amount of the investment.

Geometric Average Market Capitalization

Geometric Average Market Capitalization is a measure of the size of the companies in which a portfolio invests.

Growth of 10,000

For funds, this graph compares the growth of an investment of 10,000 (in the base currency of the fund) with that of an index and/or with that of the average for all funds in its Morningstar Category. The total returns are not adjusted to reflect sales charges or the effects of taxation but are adjusted to reflect actual ongoing fund expenses, and they assume reinvestment of dividends and capital gains. If adjusted, effects of sales charges and taxation would reduce the performance quoted. If pre-inception data is included in the analysis, it will be graphed.

The index in the Growth of 10,000 graph is an unmanaged portfolio of specified securities and cannot be invested in directly. The index does not reflect any initial or ongoing expenses. A fund's portfolio may differ significantly from the securities in the index. The index is chosen by Morningstar.

Management Fees %

The management fee includes the management and administrative fees listed in the Management Fees section of a fund's prospectus. Typically, these fees represent the costs shareholders paid for management and administrative services over the fund's prior fiscal year.

Maximum Redemption Fee %

The Maximum Redemption Fee is the maximum amount a fund may charge if redeemed in a specific time period after the fund's purchase (for example, 30, 180, or 365 days).

Mean

Mean is the annualized geometric return for the period shown.

Morningstar Analyst Rating™

The Morningstar Analyst Rating™ is not a credit or risk rating. It is a subjective evaluation performed by Morningstar's manager research group, which consists of various Morningstar, Inc. subsidiaries ("Manager Research Group"). In the United States, that subsidiary is Morningstar Research Services LLC, which is registered with and governed by the U.S. Securities and Exchange Commission. The Manager Research Group evaluates investment products based on five key pillars, which are process, performance, people, parent, and price. The Manager Research Group uses this five-pillar evaluation to determine how they believe investment products are likely to perform relative to a benchmark over the long term on a risk-adjusted basis. They consider quantitative and qualitative factors in their research. For actively managed strategies, people and process each receive a 45% weighting in their analysis, while parent receives a 10% weighting. For passive strategies, process receives an 80% weighting, while people and parent each receive a 10% weighting. For both active and passive strategies, performance has no explicit weight as it is incorporated into the analysis of people and process, price at the share-class level (where applicable) is directly subtracted from an expected gross alpha estimate derived from the analysis of the other pillars. The impact of the weighted pillar scores for people, process and parent on the final Morningstar Analyst Rating is further modified by a measure of the dispersion of historical alphas among relevant peers. For certain peer groups where standard benchmarking is not applicable, primarily peer groups of investment products using alternative investment strategies, the modification by alpha dispersion is not used.

Separately managed accounts are rated using the methodology for actively managed funds. A proxy fee is deducted from all separately managed accounts in a given Morningstar Category. The proxy fee is based on a survey of separately managed account model-delivery fees.

The Morningstar Analyst Rating scale is Gold, Silver, Bronze, Neutral, and Negative. For active investment products, a Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's expectation that an active investment product will be able to deliver positive alpha net of fees relative to the standard benchmark index assigned to the Morningstar category. The level of the rating relates to the level of expected positive net alpha relative to Morningstar category peers for active investment products. For passive investment products, a Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's expectation that an investment product will be able to deliver a higher alpha net of fees than the lesser of the relevant Morningstar category median or 0. The level of the rating relates to the level of expected net alpha relative to Morningstar category peers for passive investment products. For certain peer groups where standard benchmarking is not applicable, primarily peer groups of investment products using alternative investment strategies, a Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's expectation that an investment product will deliver a weighted pillar score above a predetermined threshold within its peer group. Morningstar Analyst Ratings ultimately reflect the Manager

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Research Group's overall assessment, are overseen by an Analyst Rating Committee, and are continuously monitored and reevaluated at least every 14 months.

For more detailed information about Morningstar's Analyst Rating, including its methodology, please go to <http://global.morningstar.com/equitydisclosure>.

The Morningstar Analyst Rating (i) should not be used as the sole basis in evaluating an investment product, (ii) involves unknown risks and uncertainties which may cause the Manager Research Group's expectations not to occur or to differ significantly from what they expected, and (iii) should not be considered an offer or solicitation to buy or sell the investment product.

Morningstar Quantitative Rating™

Morningstar's quantitative fund ratings consist of: (i) Morningstar Quantitative Rating (overall score), (ii) Quantitative Parent pillar, (iii) Quantitative People pillar, and (iv) Quantitative Process pillar (collectively the "Quantitative Fund Ratings"). The Quantitative Fund Ratings are calculated monthly and derived from the analyst-driven ratings of a fund's peers as determined by statistical algorithms. Morningstar, Inc. calculates Quantitative Fund Ratings for funds when an analyst rating does not exist as part of its qualitative coverage.

- **Morningstar Quantitative Rating:** Intended to be comparable to Morningstar's Analyst Ratings for open-end funds and ETFs, which is the summary expression of Morningstar's forward-looking analysis of a fund. The Morningstar Analyst Rating is based on the analyst's conviction in the fund's ability to outperform its peer group and/or relevant benchmark on a risk-adjusted basis over a full market cycle of at least 5 years. Ratings are assigned on a five-tier scale with three positive ratings of Gold, Silver, and Bronze, a Neutral rating, and a Negative rating. Morningstar calculates the Morningstar Quantitative Rating using a statistical model derived from the Morningstar Analyst Rating our fund analysts assign to open-end funds and ETFs. Please go to <https://shareholders.morningstar.com/investor-relations/governance/Compliance--Disclosure/default.aspx> for information about Morningstar Analyst Rating Morningstar's fund analysts assign to funds.

- **Quantitative Parent pillar:** Intended to be comparable to Morningstar's Parent pillar scores, which provides Morningstar's analyst opinion on the stewardship quality of a firm. Morningstar calculates the Quantitative Parent pillar using an algorithm designed to predict the Parent Pillar score our fund analysts would assign to the fund. The quantitative pillar rating is expressed in both a rating and a numerical value as High (5), Above Average (4), Average (3), Below Average (2), Low (1).

- **Quantitative People pillar:** Morningstar's People pillar scores, which provides Morningstar's analyst opinion on the fund manager's talent, tenure, and resources. Morningstar calculates the Quantitative People pillar using an algorithm designed to predict the People pillar score our fund analysts would assign to the fund. The quantitative pillar rating is expressed in both a rating and a numerical value as High (5), Above Average (4), Average (3), Below Average (2), Low (1).

- **Quantitative Process Pillar:** Intended to be comparable to Morningstar's Process pillar scores, which provides Morningstar's analyst opinion on the fund's strategy and whether the management has a competitive advantage enabling it to execute the process and consistently over time. Morningstar calculates the Quantitative Process pillar using an algorithm designed to predict the Process pillar score our fund analysts would assign to the fund. The quantitative pillar rating is expressed in both a rating and a numerical value as High (5), Above Average (4), Average (3), Below Average (2), and Low (1).

Morningstar Quantitative Ratings **have not been made available** to the issuer of the security prior to publication.

Risk Warning

The quantitative fund ratings are not statements of fact. Morningstar does not guarantee the completeness or accuracy of the assumptions or models used in determining the quantitative fund ratings. In addition, there is the risk that the return target will not be met due to such things as unforeseen changes in changes in management, technology, economic development, interest rate development, operating and/or material costs, competitive pressure, supervisory law, exchange rate, and tax rate. For investments in foreign markets there are further risks, generally based on exchange rate changes or changes in political and social conditions. A change in the fundamental factors underlying the quantitative fund ratings can mean that the recommendation is subsequently no longer accurate.

For more information about Morningstar's quantitative methodology, please visit <https://shareholders.morningstar.com/investor-relations/governance/Compliance--Disclosure/default.aspx>

Morningstar Category

Morningstar Category is assigned by placing funds into peer groups based on their underlying holdings. The underlying securities in each portfolio are the primary factor in our analysis as the investment objective and investment strategy stated in a fund's prospectus may not be sufficiently detailed for our proprietary classification methodology. Funds are placed in a category based on their portfolio statistics and compositions over the past three years. Analysis of performance and other indicative facts are also considered. If the fund is new and has no portfolio history, Morningstar estimates where it will fall before giving it a permanent category assignment. Categories may be changed based on recent changes to the portfolio.

Morningstar Rank

Morningstar Rank is the total return percentile rank within each Morningstar Category. The highest (or most favorable) percentile rank is zero and the lowest (or least favorable) percentile rank is 100. Historical percentile ranks are based on a snapshot of a fund at the time of calculation.

Morningstar Rating™

The Morningstar Rating™ for funds, or "star rating", is calculated for funds and separate accounts with at least a three-year history. Exchange-traded funds and open-ended mutual funds are considered a single population for comparative purposes. It is calculated based on a Morningstar Risk-Adjusted Return measure that accounts for variation in a managed product's monthly excess performance, placing more emphasis on downward variations and rewarding consistent performance. The Morningstar Rating does not include any adjustment for sales loads. The top 10% of products in each product category receive 5 stars, the next 22.5% receive 4 stars, the next 35% receive 3 stars, the next 22.5% receive 2 stars, and the bottom 10% receive 1 star. The Overall Morningstar Rating for a managed product is derived from a weighted average of the performance figures associated with its three-, five-, and 10-year (if applicable) Morningstar Rating metrics. For more information about the Morningstar Rating for funds, including its methodology, please go to global.morningstar.com/manageddisclosures

The Morningstar Return rates a fund's performance relative to other managed products in its Morningstar Category. It is an assessment of a product's excess return over a risk-free rate (the return of the 90-day Treasury Bill) in comparison with the products in its Morningstar category. In each Morningstar category, the top 10% of products earn a High Morningstar Return (High), the next 22.5% Above Average (+Avg), the middle 35% Average (Avg), the next 22.5% Below Average (-Ave), and the bottom 10% Low (Low). Morningstar Return is

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measured for up to three time periods (three, five, and 10 years). These separate measures are then weighted and averaged to produce an overall measure for the product. Products with less than three years of performance history are not rated.

Morningstar Risk

Morningstar Risk evaluates a fund's downside volatility relative to that of other products in its Morningstar Category. It is an assessment of the variations in monthly returns, with an emphasis on downside variations, in comparison with the products in its Morningstar category. In each Morningstar category, the 10% of products with the lowest measured risk are described as Low Risk (Low), the next 22.5% Below Average (Avg), the middle 35% Average (Avg), the next 22.5% Above Average (+Avg), and the top 10% High (High). Morningstar Risk is measured for up to three time periods (three, five, and 10 years). These separate measures are then weighted and averaged to produce an overall measure for the product. Products with less than three years of performance history are not rated.

Style Analysis

The Morningstar Style Box reveals a fund's investment style as of the date noted on this report.

For equity funds, the vertical axis shows the market capitalization of the long stocks owned, and the horizontal axis shows the investment style (value, blend, or growth.) A darkened cell in the style box matrix indicates the weighted average style of the portfolio.

For portfolios holding fixed-income investments, a Fixed Income Style Box is calculated. The vertical axis shows the credit quality based on credit ratings and the horizontal axis shows interest-rate sensitivity as measured by effective duration. There are three credit categories: "High", "Medium", and "Low", and there are three interest rate sensitivity categories: "Limited", "Moderate", and "Extensive" resulting in nine possible combinations. As in the equity Style Box the combination of credit and interest rate sensitivity for a portfolio is represented by a darkened cell in the matrix.

Morningstar uses credit rating information from credit rating agencies (CRA's) that have been designated Nationally Recognized Statistical Rating Organizations (NRSRO's) by the Securities and Exchange Commission (SEC) in the United States. For a list of all NRSROs, please visit <https://www.sec.gov/ocf/ocf-learn-nrsros.html>. Additionally, Morningstar will use credit ratings from CRA's which have been recognized by foreign regulatory institutions that are deemed the equivalent of the NRSRO designation.

To determine the rating applicable to a holding and the subsequent holding weighted value of a portfolio two methods may be employed. First is a common methodology approach where if a case exists such that two rating organizations/ agencies have rated a holding, the lower rating of the two should be applied; if three or more CRA's have rated a holding the median rating should be applied, and in cases where there are more than two ratings and a median rating cannot be determined the lower of the two middle ratings should be applied. Alternatively, if there is more than one rating available an average can be calculated from all and applied. Please Note: Morningstar, Inc. is not an NRSRO nor does it issue a credit rating on the fund. Credit ratings for any security held in a portfolio may change over time.

Morningstar uses the credit rating information to calculate a weighted-average credit quality value for the portfolio. This value is based only upon those holdings which are considered to be classified as "Fixed Income", such as government, corporate, or securitized issues. Other types of holdings such as equities and many, though not all, types of derivatives are excluded. The weighted-average credit quality value is represented by a rating symbol which

corresponds to the long-term rating symbol schemas employed by most CRA's. Note that this value is not explicitly published but instead serves an input in Style Box calculation. This symbol is then used to map to a Style Box credit quality category of "low", "medium", or "high". Funds with a "low" credit quality category are those whose weighted-average credit quality is determined to be equivalent to the commonly used High Yield classification, meaning a rating below "BBB", portfolios assigned to the "high" credit category have either a "AAA" or "Aa+" average credit quality value, while "medium" are those with an average rating of "AA" inclusive to "BBB-". It is expected and intended that the majority of portfolios will be assigned a credit category of "medium".

For assignment to an interest-rate sensitivity category Morningstar uses the average effective duration of the portfolio. From this value there are three distinct methodologies employed to determine assignment to category.

Portfolios which are assigned to Morningstar municipal bond category/employ static breakpoints between categories. These breakpoints are "Limited" equal to 4.5 years or less; (i) "Moderate" equal to 4.5 years to less than 7 years, and "Extensive" equal to more than 7 years. For portfolios assigned to Morningstar categories other than U.S. Taxable, including all domiciled outside the United States, static duration breakpoints are also used. The values differ from the municipal category values: (i) "Limited" equals less than or equal to 3.5 years, "Moderate" equals greater than 3.5 years but less than or equal to 6 years, "Extensive" is assigned to portfolios with effective durations of more than 6 years. Note: Interest-rate sensitivity for non-U.S. domiciled portfolios (excluding those in Morningstar convertible categories) may be assigned using average modified duration when average effective duration is not available.

For portfolios Morningstar classifies as U.S Taxable Fixed-Income, interest-rate sensitivity category assignment is based on the effective duration of the Morningstar Core Bond Index (MCBI). The classification assignment is dynamically determined relative to the benchmark index value. A "Limited" category will be assigned to portfolios whose average effective duration is between 25% to 75% of MCBI average effective duration, where the average effective duration is between 75% to 125% of the MCBI the portfolio will be classified as "Moderate", and those portfolios with an average effective duration value 125% or greater of the average effective duration of the MCBI will be classified as "Extensive".

P/B Ratio TTM

The Price/Book Ratio (or P/B Ratio) for a fund is the weighted average of the P/B Ratio of the stocks in its portfolio. Book value is the total assets of a company, less total liabilities. The P/B ratio of a company is calculated by dividing the market price of its outstanding stock by the company's book value, and then adjusting for the number of shares outstanding. Stocks with negative book values are excluded from this calculation. It shows approximately how much an investor is paying for a company's assets based on historical valuations.

P/C Ratio TTM

The Price/Cash Flow Ratio (or P/C Ratio) for a fund is the weighted average of the P/C Ratio of the stocks in its portfolio. The P/C Ratio of a stock represents the amount an investor is willing to pay for a dollar generated from a company's operations. It shows the ability of a company to generate cash and acts as a gauge of liquidity and solvency.

P/E Ratio TTM

The Price/Earnings Ratio (or P/E Ratio) for a fund is the weighted average of the P/E Ratios of the stocks in its portfolio. The P/E Ratio of a stock is the stock's current price divided by the company's trailing 12-month earnings per share. A high P/E Ratio usually indicates the market will pay more to obtain the company's earnings because it believes in the company's abilities to increase their earnings. A low P/E Ratio indicates the market has less confidence that the company's earnings will increase, however value investors may believe such

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stocks have an overlooked or undervalued potential for appreciation.

Percentile Rank in Category

Percentile Rank is a standardized way of ranking items within a peer group, in this case, funds within the same Morningstar Category. The observation with the largest numerical value is ranked zero the observation with the smallest numerical value is ranked 100. The remaining observations are placed equal distance from one another on the rating scale. Note that lower percentile ranks are generally more favorable for returns (high returns), while higher percentile ranks are generally more favorable for risk measures (low risk).

Performance Quartile

Performance Quartile reflects a fund's Morningstar Rank.

Potential Capital Gains Exposure

Potential Capital Gains Exposure is an estimate of the percent of a fund's assets that represent gains. It measures how much the fund's assets have appreciated, and it can be an indicator of possible future capital gains distributions. A positive potential capital gains exposure value means that the fund's holdings have generally increased in value while a negative value means that the fund has reported losses on its book.

Quarterly Returns

Quarterly Return is calculated applying the same methodology as Total Return except it represents return through each quarter-end.

R-Squared

R-squared is the percentage of a security or portfolio's return movements that are explained by movements in its benchmark index, showing the degree of correlation between the security or portfolio and the benchmark. This figure is helpful in assessing how likely it is that beta and alpha are statistically significant. A value of 1 indicates perfect correlation between the security or portfolio and its benchmark. The lower the R-squared value, the lower the correlation.

Regional Exposure

The regional exposure is a display of the portfolio's assets invested in the regions shown on the report.

Sector Weightings

Super Sectors represent Morningstar's broadest classification of equity sectors by assigning the 11 equity sectors into three classifications. The Cyclical Super Sector includes industries significantly impacted by economic shifts, and the Defensive Super Sector generally includes industries that are relatively immune to economic cycles, and the stocks in these industries generally have betas less than 1. The Sensitive Super Sector includes industries that ebb and flow with the overall economy, but not severely so. Stocks in the Sensitive Super Sector generally have betas that are close to 1.

Share Change

Share Change represents the number of shares of a stock bought or sold by a fund since the previously reported portfolio of the fund.

Sharpe Ratio

Sharpe Ratio uses standard deviation and excess return (a measure of a security or portfolio's return in excess of the U.S. Treasury three-month Treasury Bill) to determine the reward per unit of risk.

Standard Deviation

Standard deviation is a statistical measure of the volatility of the security or portfolio's returns. The larger the standard deviation, the greater the volatility

of return.

Standardized Returns

Standardized Return applies the methodology described in the Standardized Returns page of this report. Standardized Return is calculated through the most recent calendar-quarter end for one-year, five-year, 10-year, and/or since-inception periods, and it demonstrates the impact of sales charges (if applicable) and ongoing fund expenses. Standardized Return reflects the return an investor may have experience if the security was purchased at the beginning of the period and sold at the end, incurring transaction charges.

Total Return

Total Return, or "Non Load-Adjusted Return", reflects performance without adjusting for sales charges (if applicable) or the effects of taxation, but it is adjusted to reflect all actual ongoing security expenses and assumes reinvestment of dividends and capital gains. It is the return an investor would have experienced if the fund was held throughout the period. If adjusted for sales charges and the effects of taxation, the performance quoted would be significantly reduced.

Total Return +/- indicates how a fund has performed relative to its peers (as measure by its Standard Index and/or Morningstar Category Index) over the time periods shown.

Trailing Returns

Standardized Return applies the methodology described in the Standardized Returns page of this report. Standardized Return is calculated through the most recent calendar-quarter end for one-year, five-year, 10-year, and/or since-inception periods, and it demonstrates the impact of sales charges (if applicable) and ongoing fund expenses. Standardized Return reflects the return an investor may have experienced if the fund was purchased at the beginning of the period and sold at the end, incurring transaction charges.

Load-Adjusted Monthly Return is calculated applying the same methodology as Standardized Return, except that it represents return through month-end. As with Standardized Return, it reflects the impact of sales charges and ongoing fund expenses, but not taxation. If adjusted for the effects of taxation, the performance quoted would be significantly different.

Trailing Return +/- indicates how a fund has performed relative to its peers (as measure by its Standard Index and/or Morningstar Category Index) over the time periods shown.

Investment Risks

International/Emerging Market Equities: Investing in international securities involves special additional risks. These risks include, but are not limited to, currency risk, political risk, and risk associated with varying accounting standards. Investing in emerging markets may accentuate these risks.

Sector Strategies: Portfolios that invest exclusively in one sector or industry involve additional risks. The lack of industry diversification subjects the investor to increased industry-specific risks.

Non-Diversified Strategies: Portfolios that invest a significant percentage of assets in a single issuer involve additional risks, including share price fluctuations, because of the increased concentration of investments.

Small Cap Equities: Portfolios that invest in stocks of small companies involve additional risks. Smaller companies typically have a higher risk of failure, and

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are not as well established as larger blue-chip companies. Historically, smaller-company stocks have experienced a greater degree of market volatility than the overall market average.

Mid Cap Equities: Portfolios that invest in companies with market capitalization below \$10 billion involve additional risks. The securities of these companies may be more volatile and less liquid than the securities of larger companies.

High-Yield Bonds: Portfolios that invest in lower-rated debt securities (commonly referred to as junk bonds) involve additional risks because of the lower credit quality of the securities in the portfolio. The investor should be aware of the possible higher level of volatility, and increased risk of default.

Tax-Free Municipal Bonds: The investor should note that the income from tax-free municipal bond funds may be subject to state and local taxation and the Alternative Minimum Tax.

Bonds: Bonds are subject to interest rate risk. As the prevailing level of bond interest rates rise, the value of bonds already held in a portfolio declines. Portfolios that hold bonds are subject to declines and increases in value due to general changes in interest rates.

HOLDERS: The investor should note that these are narrow, industry-focused products that, if the industry is hit by hard times, will lack diversification and possible loss of investment would be likely. These securities can trade at a discount to market price, ownership is of a fractional share interest, the underlying investments may not be representative of the particular industry, the HOLDER might be delisted from the AMEX if the number of underlying companies drops below nine, and the investor may experience trading halts.

Hedge Funds: The investor should note that hedge fund investing involves specialized risks that are dependent upon the type of strategies undertaken by the manager. This can include distressed or event-driven strategies, long/short strategies, using arbitrage (exploiting price inefficiencies), international investing, and use of leverage, options and/or derivatives. Although the goal of hedge fund managers may be to reduce volatility and produce positive absolute return under a variety of market conditions, hedge funds may involve a high degree of risk and are suitable only for investors of substantial financial means who could bear the entire loss of their investment.

Bank Loan/Senior Debt: Bank loans and senior loans are impacted by the risks associated with fixed income in general, including interest rate risk and default risk. They are often non-investment grade; therefore, the risk of default is high. These securities are also relatively illiquid. Managed products that invest in bank loans/senior debt are often highly leveraged, producing a high risk of return volatility.

Exchange Traded Notes (ETNs): ETNs are unsecured debt obligations. Any repayment of notes is subject to the issuer's ability to repay its obligations. ETNs do not typically pay interest.

Leveraged ETFs: Leveraged investments are designed to meet multiples of the return performance of the index they track and seek to meet their fund objectives on a daily basis (or other time period stated within the prospectus objective). The leverage/gearing ratio is the amount of excess return that a leveraged investment is designed to achieve in comparison to its index performance (i.e. 200%, 300%, -200%, or -300% or 2X, 3X, -2X, -3X). Compounding has the ability to affect the performance of the fund to be either greater or less than the index performance multiplied by the multiple stated within the funds objective over a stated time period.

Short Positions: When a short position moves in an unfavorable way, the losses

are theoretically unlimited. The broker may demand more collateral and a manager might have to close out a short position at an inopportune time to limit further losses.

Long-Short: Due to the strategies used by long-short funds, which may include but are not limited to leverage, short selling, short-term trading, and investing in derivatives, these funds may have greater risk, volatility, and expenses than those focusing on traditional investment strategies.

Liquidity Risk: Closed-end fund, ETF, and HOLDER trading may be halted due to market conditions, impacting an investor's ability to sell a fund.

Market Price Risk: The market price of ETFs, HOLDERS, and closed-end funds traded on the secondary market is subject to the forces of supply and demand and thus independent of the NAV. This can result in the market price trading at a premium or discount to the NAV, which will affect an investor's value.

Market Risk: The market prices of ETFs and HOLDERS can fluctuate as a result of several factors, such as security-specific factors or general investor sentiment. Therefore, investors should be aware of the prospect of market fluctuations and the impact it may have on the market price.

Target-Date Funds: Target-date funds typically invest in other mutual funds and are designed for investors who are planning to retire during the target date year. The fund's target date is the approximate date when investors expect to begin withdrawing their money. A target-date fund's investment objective/strategy typically becomes more conservative over time, primarily by reducing its allocation to equity mutual funds and increasing its allocations in fixed-income mutual funds. An investor's principal value in a target-date fund is not guaranteed at any time, including at the fund's target date.

High double- and triple-digit returns: High double- and triple-digit returns were the result of extremely favorable market conditions, which may not continue to be the case. High returns for short time periods must not be a major factor when making investment decisions.

Benchmark Disclosure

Bloomberg US Agg Bond TR USD

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Bloomberg US Treasury US TIPS TR USD

BarCap U.S. Treasury TIPS is an unmanaged market index made up of U.S. Treasury Inflation Linked Index securities. The rules to be included in the index are as follows: all bonds must have cash flows linked to an inflation index, the minimum amounts outstanding will be 100 million U.S. dollars, all bonds must

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be sovereign issues and be denominated in the relevant national currency, and all bonds must have more than one year to maturity. The constituents displayed for this index are from the following proxy: iShares TIPS Bond ETF.

Bloomberg US Universal TR USD

BarCap U.S. Universal Bond Index: The U.S. Universal Index mirrors the increasingly popular “Core Plus” choice set used by many U.S.-dollar investors. It is the union of the U.S. Aggregate Index, the U.S. High Yield Corporate Index, the 144A Index, the Eurodollar Index, the Emerging Markets Index, the non-FRISA portion of the CMBS Index, and the CMBS High Yield Index. Municipal debt, private placements, and non-dollar-denominated issues are excluded from the Universal Index. The constituents displayed for this index are from the following proxy: iShares Core Total USD Bond Market ETF.

ICE BofA US High Yield TR USD

The US High Yield Master II Index tracks the performance of below investment grade US dollar-denominated corporate bonds publicly issued in the US domestic market. “Yankee” bonds are included in the Index provided the issuer is domiciled in a country having an investment grade foreign currency long-term debt rating. 144a issues are not included in the index until they are exchanged for registered securities. Qualifying bonds must have at least one year remaining term to maturity, a fixed coupon schedule and a minimum amount outstanding of USD 100 million.

Morningstar Gbl Allocation TR USD

The index measures the performance of a multi-asset class portfolio of global equities, global bonds and cash. This portfolio is held in a static allocation that is appropriate for investors who seek average exposure to global equity market risk and returns. This Index does not incorporate Environmental, Social, or Governance (ESG) criteria.

Morningstar Gbl xUS Growth TME NR USD

The index measures the performance of large and mid-cap stocks representing the faster-growing half of global markets excluding US. This Index does not incorporate Environmental, Social, or Governance (ESG) criteria.

Morningstar Lifetime Mod 2020 TR USD

The Morningstar Lifetime Moderate 2020 Index represents a portfolio of global equities, bonds and traditional inflation hedges such as commodities and TIPS. This portfolio is held in proportions appropriate for a U.S. investor who is about ten years away from retirement. The Moderate risk profile is for investors who are comfortable with average exposure to equity market volatility.

Morningstar Lifetime Mod 2025 TR USD

The Morningstar Lifetime Moderate 2025 Index represents a portfolio of global equities, bonds and traditional inflation hedges such as commodities and TIPS. This portfolio is held in proportions appropriate for a U.S. investor who is about 15 years away from retirement. The Moderate risk profile is for investors who are comfortable with average exposure to equity market volatility.

Morningstar Lifetime Mod 2030 TR USD

The Morningstar Lifetime Moderate 2030 Index represents a portfolio of global equities, bonds and traditional inflation hedges such as commodities and TIPS. This portfolio is held in proportions appropriate for a U.S. investor who is about 20 years away from retirement. The Moderate risk profile is for investors who are comfortable with average exposure to equity market volatility.

Morningstar Lifetime Mod 2035 TR USD

The Morningstar Lifetime Moderate 2035 Index represents a portfolio of global equities, bonds and traditional inflation hedges such as commodities and TIPS. This portfolio is held in proportions appropriate for a U.S. investor who is about 25 years away from retirement. The Moderate risk profile is for investors who

are comfortable with average exposure to equity market volatility.

Morningstar Lifetime Mod 2040 TR USD

The Morningstar Lifetime Moderate 2040 Index represents a portfolio of global equities, bonds and traditional inflation hedges such as commodities and TIPS. This portfolio is held in proportions appropriate for a U.S. investor who is about 30 years away from retirement. The Moderate risk profile is for investors who are comfortable with average exposure to equity market volatility.

Morningstar Lifetime Mod 2045 TR USD

The Morningstar Lifetime Moderate 2045 Index represents a portfolio of global equities, bonds and traditional inflation hedges such as commodities and TIPS. This portfolio is held in proportions appropriate for a U.S. investor who is about 35 years away from retirement. The Moderate risk profile is for investors who are comfortable with average exposure to equity market volatility.

Morningstar Lifetime Mod 2050 TR USD

The Morningstar Lifetime Moderate 2050 Index represents a portfolio of global equities, bonds and traditional inflation hedges such as commodities and TIPS. This portfolio is held in proportions appropriate for a U.S. investor who is about 40 years away from retirement. The Moderate risk profile is for investors who are comfortable with average exposure to equity market volatility.

Morningstar Lifetime Mod 2055 TR USD

The Morningstar Lifetime Moderate 2055 Index represents a portfolio of global equities, bonds and traditional inflation hedges such as commodities and TIPS. This portfolio is held in proportions appropriate for a U.S. investor who is about 45 years away from retirement. The Moderate risk profile is for investors who are comfortable with average exposure to equity market volatility.

Morningstar Lifetime Mod 2060 TR USD

The index measures the performance of a portfolio of global equities, bonds and traditional inflation hedges such as commodities and TIPS. This portfolio is held in proportions appropriate for a US investor who has a target maturity date of 2060. The Moderate risk profile is for investors who are comfortable with average exposure to equity market volatility. This Index does not incorporate Environmental, Social, or Governance (ESG) criteria.

Morningstar Lifetime Mod Incm TR USD

The Morningstar Lifetime Moderate Income Index represents a portfolio of global equities, bonds and traditional inflation hedges such as commodities and TIPS. This portfolio is held in proportions appropriate for a U.S. investor who is at least ten years into retirement. The Moderate risk profile is for investors who are comfortable with average exposure to equity market volatility.

Morningstar Mod Tgt Risk TR USD

The Morningstar Moderate Target Risk Index represents a portfolio of global equities, bonds and traditional inflation hedges such as commodities and TIPS. This portfolio is held in a static allocation appropriate for U.S. investors who seek average exposure to equity market risk and returns.

Morningstar US Core Bd TR USD

The index measures the performance of fixed-rate, investment-grade USD-denominated securities with maturities greater than one year. It is market-capitalization weighted. This Index does not incorporate Environmental, Social, or Governance (ESG) criteria.

Morningstar US LM Brd Growth TR USD

The index provides a comprehensive depiction of the performance and fundamental characteristics of the Large-Mid Cap Growth segment of U.S. equity markets. It targets stocks representing the faster growing half of the U.S.

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large- and mid-cap market. This Index does not incorporate Environmental, Social, or Governance (ESG) criteria.

Morningstar US Mid Brd Grt TR USD

The index measures the performance of US mid-cap growth stocks. It targets stocks representing the faster growing half of the mid-cap market. This Index does not incorporate Environmental, Social, or Governance (ESG) criteria.

Morningstar US Mod Con Tgt Alloc NR USD

The Morningstar Target Allocation Index family consists of indexes that offer a diversified mix of stocks and bonds created for local investors to benchmark their allocation funds. Morningstar's Category classification system defines the level of equity and bond exposure for each index. The Morningstar US Moderately Conservative Target Allocation Index seeks 40% exposure to global equity markets.

Morningstar US Sm1 Brd Val Ext TR USD

The index provides a comprehensive depiction of the performance and fundamental characteristics of the Small Value segment of U.S. equity markets. It targets stocks representing the cheaper half of the U.S. small-cap market. This Index does not incorporate Environmental, Social, or Governance (ESG) criteria.

Morningstar US Sm1 Ext TR USD

The index measures the performance of US small-cap stocks. These stocks fall between the 90th and 99.5th percentile in market capitalization of the investable universe. This Index does not incorporate Environmental, Social, or Governance (ESG) criteria.

MSCI ACWI Ex USA Growth NR USD

The index measures the performance of the growth large and mid cap segments of the particular regions, excluding USA equity securities, including developed and emerging market. It is free float-adjusted market-capitalization weighted. The constituents displayed for this index are from the following proxy: iShares MSCI ACWI ETF.

MSCI ACWI Ex USA NR USD

The MSCI AC World ex USA is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global developed and emerging markets. The index consists of 48 developed and emerging market country indices. The returns we publish for the index are total returns, which include reinvestment of dividends. The constituents displayed for this index are from the following proxy: iShares MSCI ACWI ex US ETF.

MSCI ACWI Ex USA Value NR USD

The index measures the performance of the value large and mid cap segments of the particular regions, excluding USA equity securities, including developed and emerging market. It is free float-adjusted market-capitalization weighted. The constituents displayed for this index are from the following proxy: iShares MSCI ACWI ETF.

MSCI ACWI NR USD

The index measures the performance of the large and mid cap segments of all country markets. It is free float-adjusted market-capitalization weighted. The constituents displayed for this index are from the following proxy: iShares MSCI ACWI ETF.

MSCI ACWI SMID NR USD

The MSCI ACWI SMID Cap Index captures mid and small cap representation across 23 Developed Markets (DM) and 26 Emerging Markets (EM) countries*.

With 7,337 constituents, the index covers approximately 28% of the free float-adjusted market capitalization in each country. The index is reviewed

quarterly—in February, May, August and November—with the objective of reflecting change in the underlying equity markets in a timely manner, while limiting undue index turnover. During the May and November semi-annual index reviews, the index is rebalanced and the mid and small capitalization cutoff points are recalculated.

MSCI EAFE NR USD

This Europe, Australasia, and Far East index is a market-capitalization-weighted index of 21 non-U.S., industrialized country indexes.

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Russell 1000 Growth TR USD

Tracks the companies within the Russell 1000 with higher price-to-book ratios and higher forecasted growth values. The constituents displayed for this index are from the following proxy: iShares Russell 1000 Growth ETF.

Russell 1000 TR USD

Consists of the 1000 largest companies within the Russell 3000 index, which represents approximately 98% of the investable US equity market. Also known as the Market-Oriented Index, because it represents the group of stocks from which most active money managers choose. The constituents displayed for this index are from the following proxy: iShares Russell 1000 ETF.

Russell 1000 Value TR USD

Tracks the companies within the Russell 1000 with lower price-to-book ratios and lower forecasted growth values. The constituents displayed for this index are from the following proxy: iShares Russell 1000 Value ETF.

Russell 2000 Growth TR USD

Tracks the companies within the Russell 2000 Index that have higher price-to-book ratios and higher forecasted growth values. The constituents displayed for this index are from the following proxy: iShares Russell 2000 Growth ETF.

Russell 2000 TR USD

Consists of the 2000 smallest companies in the Russell 3000 Index. The constituents displayed for this index are from the following proxy: iShares Russell 2000 ETF.

Russell Mid Cap Growth TR USD

Tracks the companies within the Russell Midcap Index with higher price-to-book ratios and higher forecasted growth values. The constituents displayed for this index are from the following proxy: iShares Russell Mid-Cap Growth ETF.

Russell Mid Cap TR USD

Measures the performance of the 800 smallest companies in the Russell 1000 Index, which represent approximately 25% of the total market capitalization of the Russell 1000 Index. The constituents displayed for this index are from the following proxy: iShares Russell Mid-Cap ETF.

Russell Mid Cap Value TR USD

Tracks the companies within the Russell Midcap Index having lower price-to-

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book ratios and lower forecasted growth values. The constituents displayed for this index are from the following proxy: iShares Russell Mid-Cap Value ETF.

S&P 500 TR USD

A market capitalization-weighted index composed of the 500 most widely held stocks whose assets and/or revenues are based in the US; it's often used as a proxy for the U.S. stock market. TR (Total Return) indexes include daily reinvestment of dividends. The constituents displayed for this index are from the following proxy: SPDR® S&P 500 ETF Trust.

USTREAS T-Bill Auction Ave 3 Mon

Three-month T-bills are government-backed, short-term investments considered to be risk-free and as good as cash because the maturity is only three months. Morningstar collects yields on the T-bill on a weekly basis from the Wall Street Journal.

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Fund data provided by Morningstar.

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Peer Group Ranking Methodology. A percentile rank denotes the value of a product in which a certain percent of observations falls within a peer group. The range of percentile rankings is between 1 and 100, where 1 represents a high statistical value and 100 represents a low statistical value. The 30th percentile, for example, is the value in which 30% of the highest observations may be found, the 65th percentile is the value in which 65% of the highest observations may be found, and so on.

Percentile rankings are calculated based on a normalized distribution ranging from 1 to 100 for all products in each peer group, where a ranking of 1 denotes a high statistical value and a ranking of 100 denotes a low statistical value. It is important to note that the same ranking methodology applies to all statistics, implying that a ranking of 1 will always mean highest value across all statistics.

For example, consider a risk/return assessment using standard deviation as a measure of risk. A percentile ranking equal to 1 for return denotes highest return, whereas a percentile ranking of 1 for standard deviation denotes highest risk among peers.

In addition, values may be used to demonstrate quartile rankings. For example, the third quartile is also known as the 75th percentile, and the median is the 50th percentile.

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