



STATE OF NEVADA
457(b) Deferred Compensation and OBRA Plans
December 31, 2022 Performance Report

Rasch Cousineau
Senior Consultant
rcousineau@hyasgroup.com

Geoff Hildreth
Performance Analyst
ghildreth@hyasgroup.com

~For Institutional Use Only – Not for Public Distribution~
Hyas Group is a business of Morgan Stanley

TABLE OF CONTENTS

Section 1 Market Overview

Section 2 Plan Reviews

Plan Review – Combined 457(b) DC Plans

Plan Review – State Employees 457(b) DC Plan

Plan Review – Political Subdivisions 457(b) DC Plan

Plan Review – Nevada System of Higher Education 457(b) DC Plan

Plan Review – FICA Alternative OBRA Plan

Section 3 Investment Performance Review

Section 4 Plan Fee/Revenue Reviews

Plan Fee/Revenue Review – Combined 457(b) DC Plans

Plan Fee/Revenue Review – FICA Alternative OBRA Plan

Section 5 Fund Attributions

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.

Disclosure: The views and opinions expressed in this commentary are those of the portfolio manager at the time of this writing and do not necessarily represent those of Hyas Group, Morgan Stanley, its affiliates or its other employees. Of course, these views may change without notice in response to changing circumstances and market conditions. Furthermore, this commentary contains forward-looking statements and there can be no guarantee that they will come to pass. Historical data shown represents past performance and does not guarantee comparable future results. The information and statistical data contained herein have been obtained from sources that are believed to be reliable but in no way are guaranteed by Hyas Group as to accuracy or completeness.

It is not an offer to buy or sell or a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. This material does not provide individually tailored investment advice and has been prepared without regard to the individual financial circumstances and objectives of persons who receive it.

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.

Hyas Group, a business of Morgan Stanley.

For further information please contact Tom Breaden (tbreaden@hyasgroup.com).

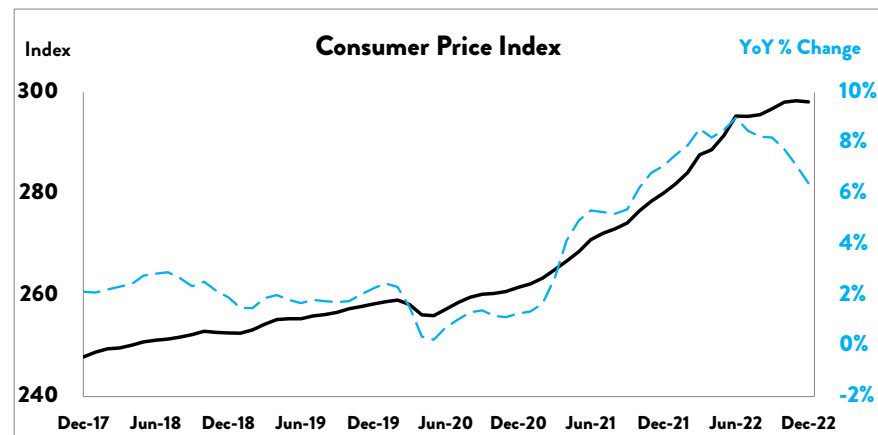
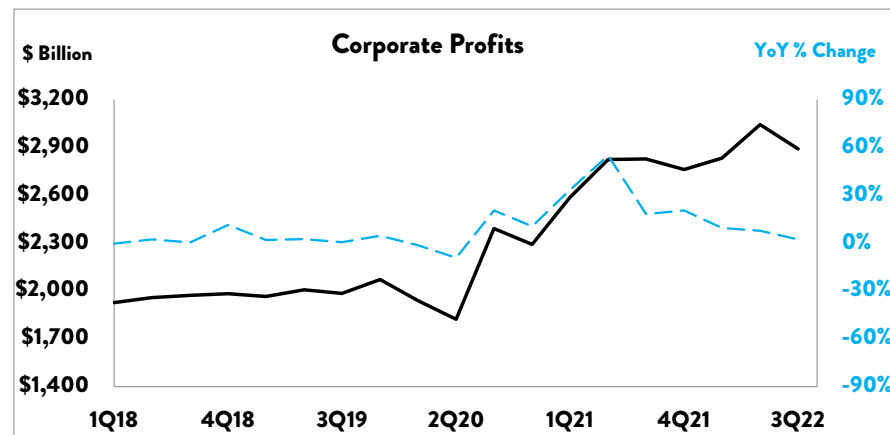
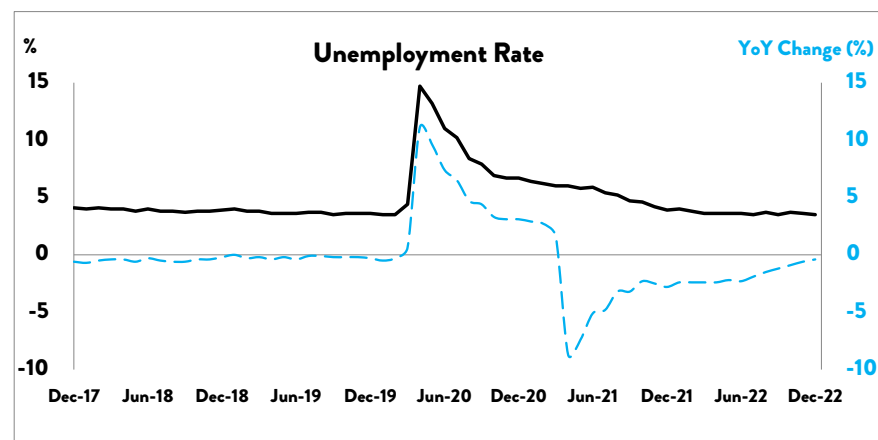
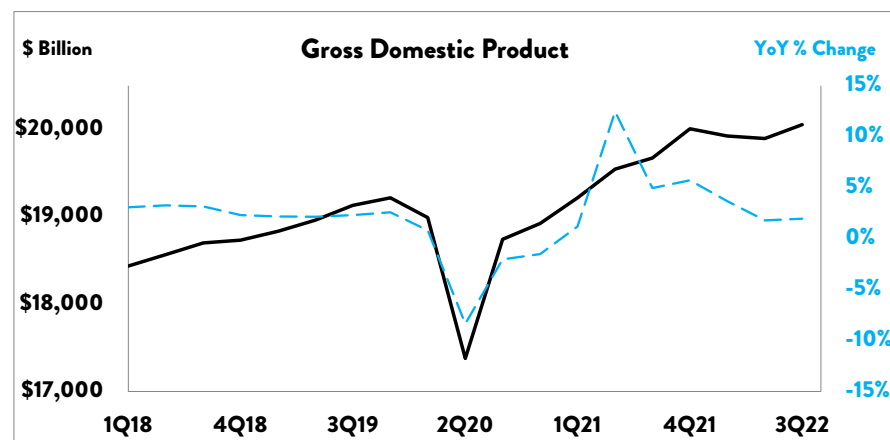
Hyas Group, 9755 SW Barnes Road, Suite 660, Portland, Oregon 97225; 503-634-1500

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

This report is being provided for informational purposes only. The information and opinions presented in this report do not constitute investment advice and have been obtained from sources believed by Hyas Group to be reliable. Hyas Group makes no representation as to their accuracy or completeness. All opinions expressed herein are subject to change.

©Morgan Stanley, 2023 CRC 5416715- 1/23

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

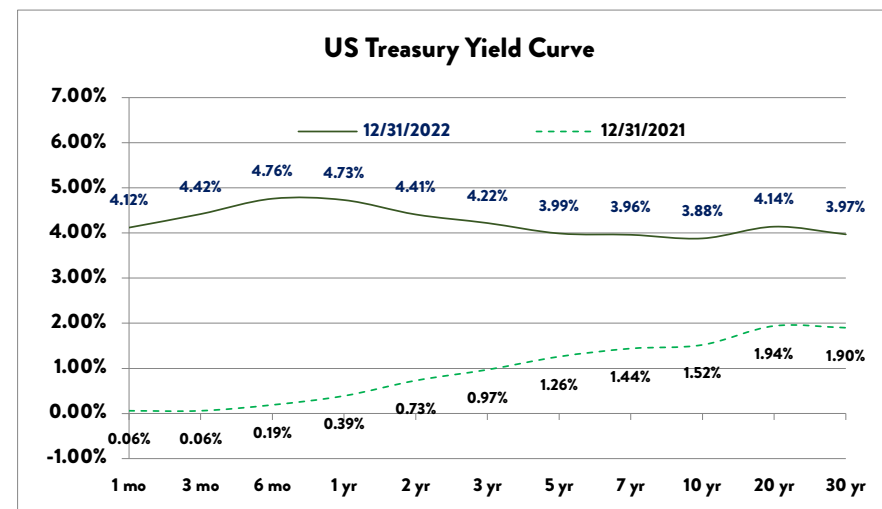
*% Off Low

Morningstar data as of 12/31/2022

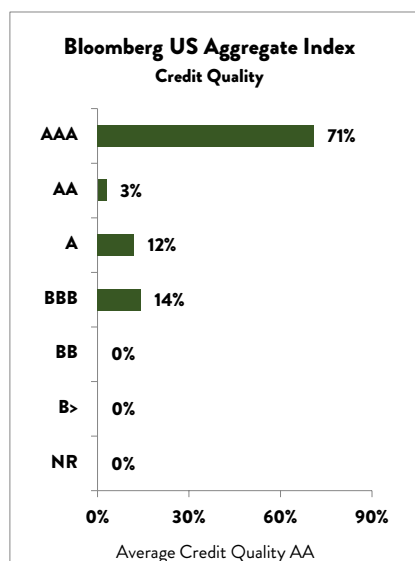
4Q2022 Bond Market Data

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%

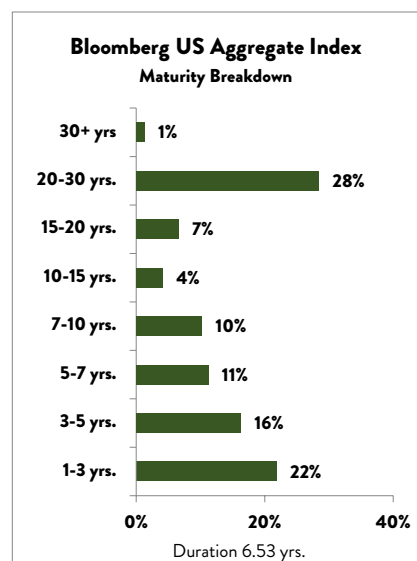
Source: Morningstar



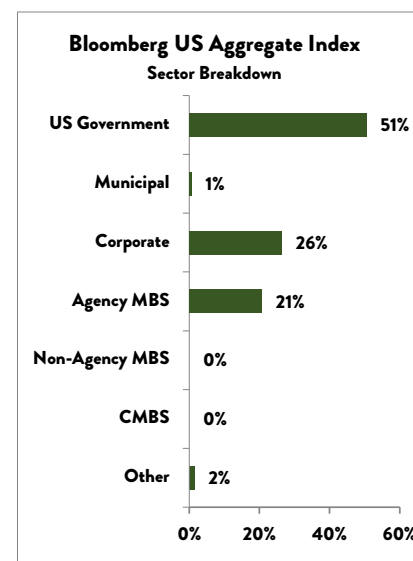
Source: Department of US Treasury



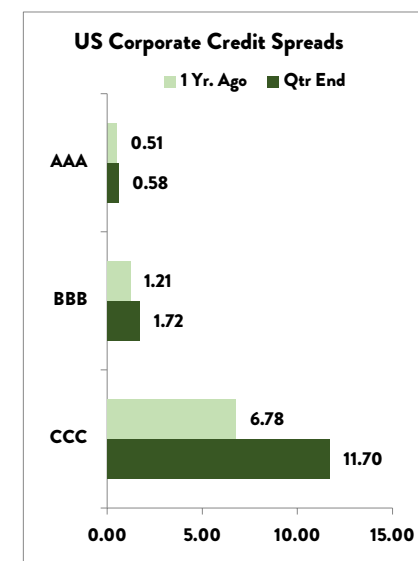
Source: Morningstar



Source: Morningstar



Source: Morningstar



Source: Federal Reserve / Bank of America

4Q2022 US Equity Market Data

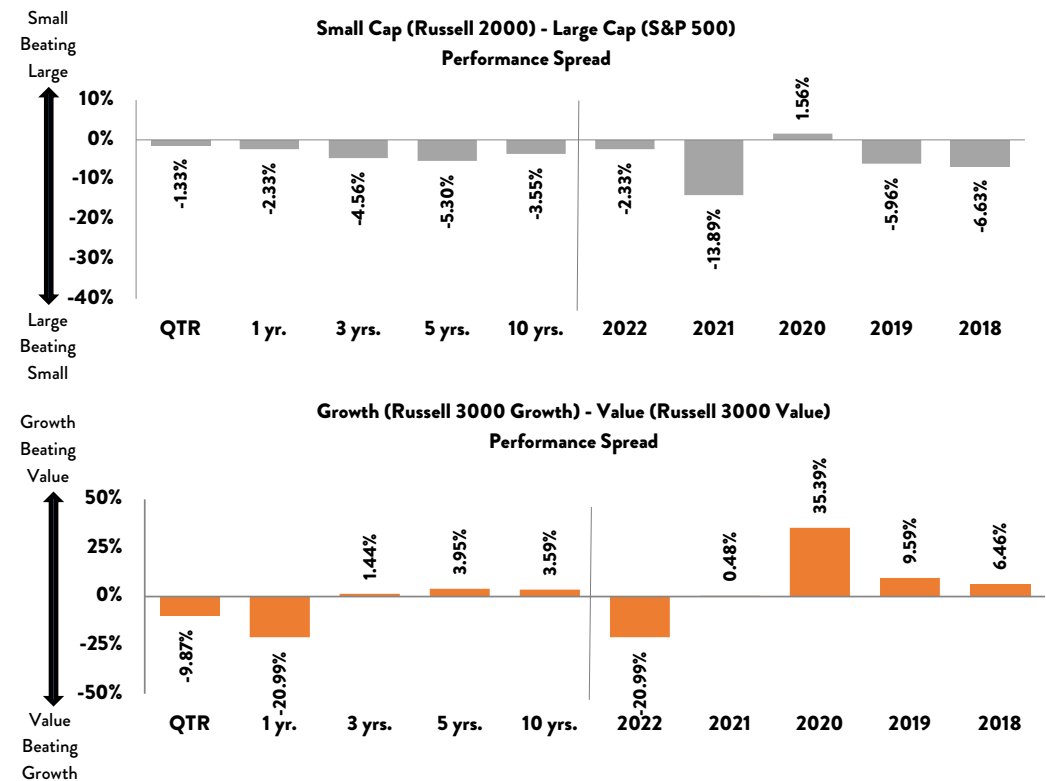
Sectors Weights/Returns (ranked by quarter performance)

	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	Wgt.	Sector	QTR	YTD	1 yr.
	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%
S&P Smallcap 600 Index	Wgt.	Sector	QTR	YTD	1 yr.
	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%

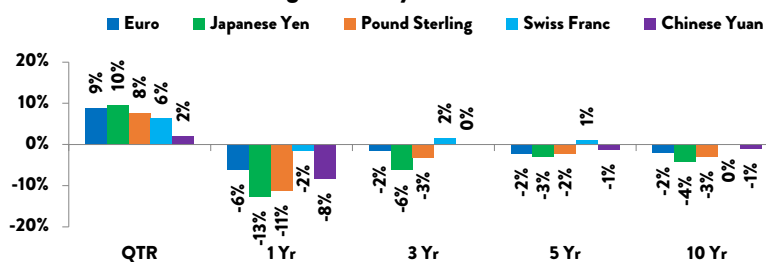


4Q2022 International Market Data

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%

Foreign Currency v. US\$ Returns

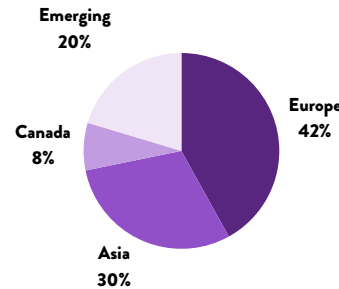


Exchange Rates	QTR	3Q22	2Q22	1Q22	4Q21	3Q21
Japanese Yen	131.81	144.71	135.69	121.44	115.17	111.50
Euro	0.93	1.02	0.96	0.90	0.88	0.86
British Pound	0.83	0.90	0.82	0.76	0.74	0.74
Swiss Franc	0.92	0.98	0.96	0.92	0.91	0.93
Chinese Yuan	6.90	7.11	6.70	6.34	6.37	6.44

Source: Federal Reserve Bank of St. Louis

Regional Exposure

MSCI ACWI ex-USA



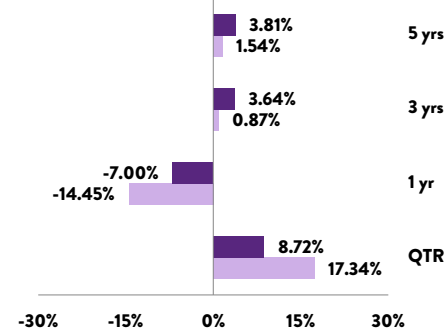
Top 10 Countries (MSCI AC World ex-USA)

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

Source: Morningstar

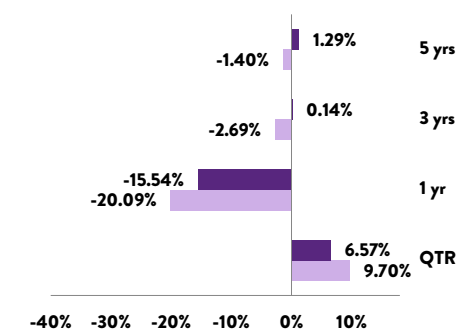
MSCI EAFE Index Return

Local US\$



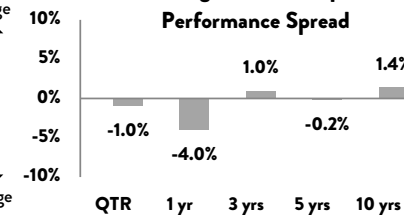
MSCI Emerging Index Return

Local US\$



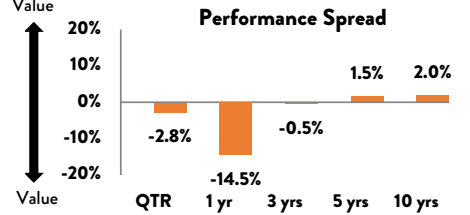
MSCI ACWI Ex US Large v. Small Cap Performance Spread

Small Beating Large
Large Beating Small



MSCI ACWI Ex US Value v. Growth Performance Spread

Growth Beating Value
Value Beating Growth



Performance Source: Morningstar

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

STATE OF NEVADA

Combined 457(b) DC Plans

PLAN ASSET ALLOCATION

Fourth Quarter 2022

Fixed Income	Ticker	Assets	%
Voya Fixed Account	-	\$341,746,806	36.0%
Vanguard Total Bond Market Index I	VBPIX	\$33,422,490	3.5%
Sterling Capital Total Return Bond R6	STRDX	\$1,203,853	0.1%
Total		\$376,373,149	39.7%

Large Cap	Ticker	Assets	%
MFS Value R4	MEIUX	\$22,045,586	2.3%
Vanguard Institutional Index Instl Plus	VIIIIX	\$124,585,406	13.1%
T. Rowe Price Growth Stock I	PRUFIX	\$51,341,528	5.4%
Total		\$197,972,520	20.9%

Mid Cap	Ticker	Assets	%
Vanguard Mid-Cap Value Index Adm	VMVAX	\$8,096,976	0.9%
Vanguard Extended Market Index Instl Plus	VEMPX	\$89,477,629	9.4%
Vanguard Mid-Cap Growth Index Adm	VMGMX	\$18,391,145	1.9%
Total		\$115,965,749	12.2%

International	Ticker	Assets	%
Vanguard Instl Total Intl Stock Mkt Index Trust	-	\$39,026,556	4.1%
American Funds EuroPacific Growth R6	REGRX	\$6,124,143	0.6%
Total		\$45,150,698	4.8%

Asset Allocation	Ticker	Assets	%
Vanguard Target Retirement Income Trust II	-	\$40,019,790	4.2%
Vanguard Target Retirement 2020 Trust II	-	\$11,372,661	1.2%
Vanguard Target Retirement 2025 Trust II	-	\$40,837,619	4.3%
Vanguard Target Retirement 2030 Trust II	-	\$13,787,270	1.5%
Vanguard Target Retirement 2035 Trust II	-	\$48,615,549	5.1%
Vanguard Target Retirement 2040 Trust II	-	\$7,655,283	0.8%
Vanguard Target Retirement 2045 Trust II	-	\$24,408,779	2.6%
Vanguard Target Retirement 2050 Trust II	-	\$5,077,521	0.5%
Vanguard Target Retirement 2055 Trust II	-	\$6,899,513	0.7%
Vanguard Target Retirement 2060 Trust II	-	\$2,020,317	0.2%
Vanguard Target Retirement 2065 Trust II	-	\$1,230,346	0.1%
Vanguard Target Retirement 2070 Trust II	-	\$19	0.0%
Total		\$201,924,665	21.3%

Miscellaneous	Ticker	Assets	%
Self-Directed Brokerage Account	-	\$7,335,587	0.8%
Participant Loans	-	\$3,505,727	0.4%
Total		\$10,841,314	1.1%

TOTAL PLAN ASSETS

\$948,228,096

Administrative Account Balance (1/18/23)

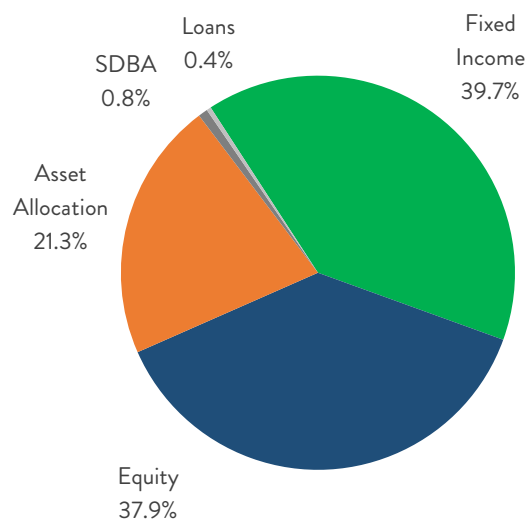
\$271,851

STATE OF NEVADA

Combined 457(b) DC Plans

PLAN ASSET ALLOCATION

Fourth Quarter 2022

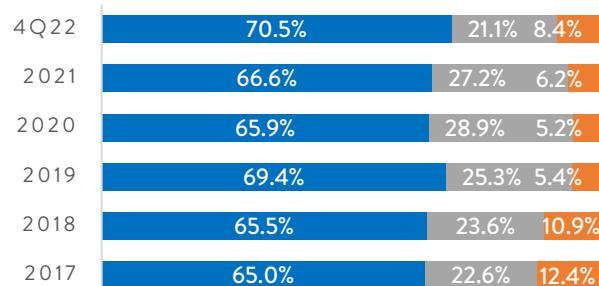


HISTORICAL PLAN ALLOCATION

Asset Class	4Q22	2021	2020	2019	2018	2017	2016	2015
Fixed Income	39.7%	34.0%	36.7%	38.1%	43.8%	41.5%	N/A	N/A
Large Cap	20.9%	24.4%	22.4%	21.8%	18.8%	20.4%	N/A	N/A
Mid Cap	12.2%	14.5%	14.9%	14.4%	13.4%	14.2%	N/A	N/A
International	4.8%	4.7%	4.3%	4.2%	4.0%	4.4%	N/A	N/A
Asset Allocation	21.3%	21.3%	20.7%	20.7%	19.2%	18.7%	N/A	N/A
SDBA	0.8%	0.9%	0.6%	0.4%	0.3%	0.3%	N/A	N/A
Loans	0.4%	0.3%	0.3%	0.4%	0.5%	0.4%	N/A	N/A

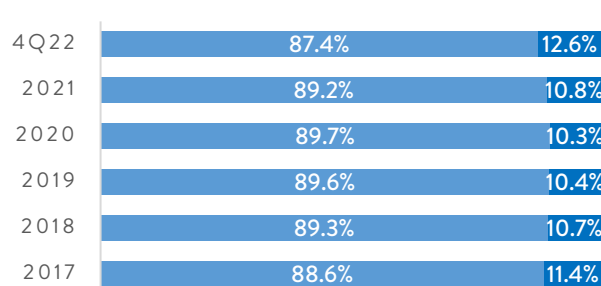
EQUITY STYLE*

Core Growth Value



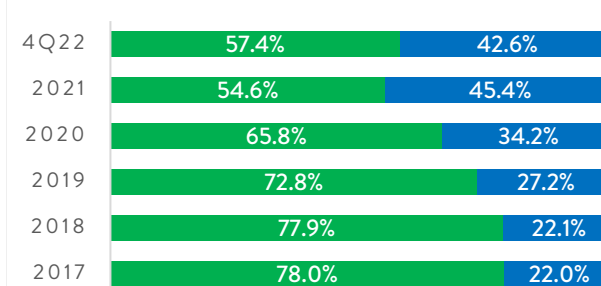
BY EQUITY REGION*

US Non-US



ACTIVE V PASSIVE**

Active Passive



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

**Excludes Asset Allocation, Brokerage, and Loan assets

STATE OF NEVADA

Combined 457(b) DC Plans

PLAN ASSET ALLOCATION

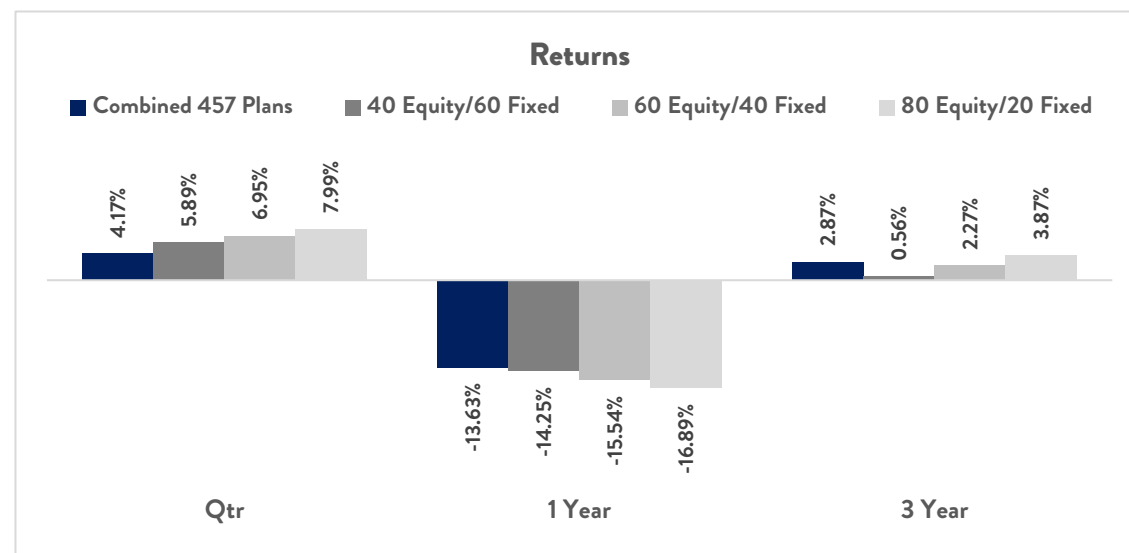
Fourth Quarter 2022

PLAN LEVEL CASH FLOWS

	Beginning Value	Cash Flow (+)	Cash Flow (-)	Transfer	Market Gain/Loss	Ending Value
Fixed Income	\$380,740,156	\$2,539,410	(\$11,683,878)	\$1,678,093	\$3,099,367	\$376,373,149
Large Cap	\$187,448,137	\$2,435,842	(\$3,292,058)	\$1,181,924	\$10,198,675	\$197,972,520
Mid Cap	\$111,154,756	\$1,439,468	(\$1,476,934)	(\$1,455,989)	\$6,304,447	\$115,965,749
International	\$39,261,230	\$703,652	(\$1,101,464)	\$541,623	\$5,745,657	\$45,150,698
Asset Allocation	\$188,361,755	\$5,894,920	(\$3,016,988)	(\$1,619,478)	\$12,304,457	\$201,924,665
SDBA	\$7,009,668	\$0	\$0	\$23,663	\$302,256	\$7,335,587
Total	\$913,975,702	\$13,013,293	(\$20,571,322)	\$349,836	\$37,954,860	\$944,722,368

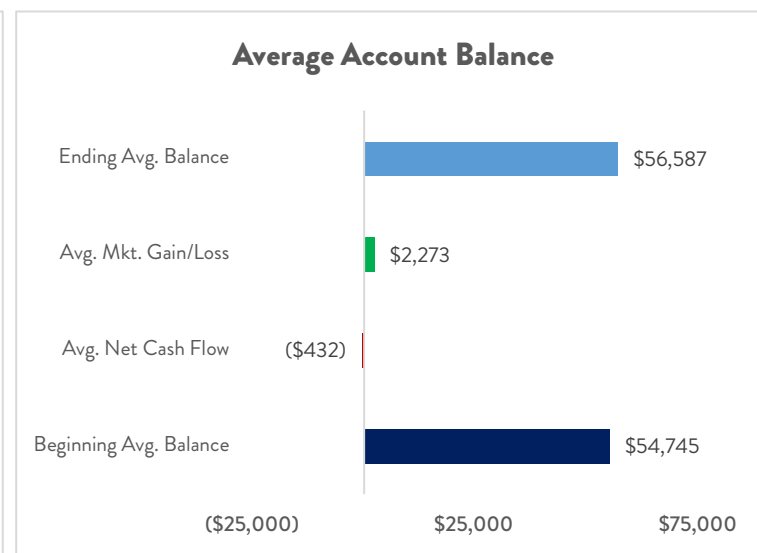
HISTORICAL PLAN CASH FLOWS

	Beginning Value	Net Cash Flow	Market Gain/Loss	Ending Value
4Q22	\$913,975,702	(\$7,208,193)	\$37,954,860	\$944,722,368
YTD	\$1,103,984,931	(\$9,111,229)	(\$150,151,333)	\$944,722,368
2021	\$1,012,211,305	(\$19,402,347)	\$111,175,973	\$1,103,984,931
2020	\$890,766,732	\$942,462	\$120,502,111	\$1,012,211,305
2019	\$771,229,524	(\$7,494,189)	\$127,031,396	\$890,766,732
2018	\$801,580,360	(\$9,496,515)	(\$20,854,320)	\$771,229,524



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

Aggregate Bond (rebalanced quarterly)



This page left blank intentionally.

STATE EMPLOYEES PLAN

457(b) Deferred Compensation Plan

PLAN ASSET ALLOCATION

Fourth Quarter 2022

Fixed Income	Ticker	Assets	%
Voya Fixed Account	-	\$241,712,290	38.3%
Vanguard Total Bond Market Index I	VBPIX	\$21,319,098	3.4%
Sterling Capital Total Return Bond R6	STRDX	\$474,858	0.1%
Total		\$263,506,246	41.7%

Large Cap	Ticker	Assets	%
MFS Value R4	MEIUX	\$14,438,819	2.3%
Vanguard Institutional Index Instl Plus	VIIIIX	\$79,449,376	12.6%
T. Rowe Price Growth Stock I	PRUFIX	\$32,395,937	5.1%
Total		\$126,284,132	20.0%

Mid Cap	Ticker	Assets	%
Vanguard Mid-Cap Value Index Adm	VMVAX	\$4,524,815	0.7%
Vanguard Extended Market Index Instl Plus	VEMPX	\$58,299,104	9.2%
Vanguard Mid-Cap Growth Index Adm	VMGMX	\$11,997,485	1.9%
Total		\$74,821,404	11.8%

International	Ticker	Assets	%
Vanguard Instl Total Intl Stock Mkt Index Trust	-	\$23,388,447	3.7%
American Funds EuroPacific Growth R6	REGRX	\$3,622,013	0.6%
Total		\$27,010,460	4.3%

Asset Allocation	Ticker	Assets	%
Vanguard Target Retirement Income Trust II	-	\$31,004,891	4.9%
Vanguard Target Retirement 2020 Trust II	-	\$6,675,560	1.1%
Vanguard Target Retirement 2025 Trust II	-	\$27,118,414	4.3%
Vanguard Target Retirement 2030 Trust II	-	\$7,548,327	1.2%
Vanguard Target Retirement 2035 Trust II	-	\$34,113,370	5.4%
Vanguard Target Retirement 2040 Trust II	-	\$4,234,887	0.7%
Vanguard Target Retirement 2045 Trust II	-	\$13,926,969	2.2%
Vanguard Target Retirement 2050 Trust II	-	\$2,376,438	0.4%
Vanguard Target Retirement 2055 Trust II	-	\$3,689,369	0.6%
Vanguard Target Retirement 2060 Trust II	-	\$863,949	0.1%
Vanguard Target Retirement 2065 Trust II	-	\$599,894	0.1%
Vanguard Target Retirement 2070 Trust II	-	\$19	0.0%
Total		\$132,152,087	20.9%

Miscellaneous	Ticker	Assets	%
Self-Directed Brokerage Account	-	\$4,239,420	0.7%
Participant Loans	-	\$3,500,112	0.6%
Total		\$7,739,532	1.2%

TOTAL PLAN ASSETS

\$631,513,861

Administrative Account Balance (1/18/23)

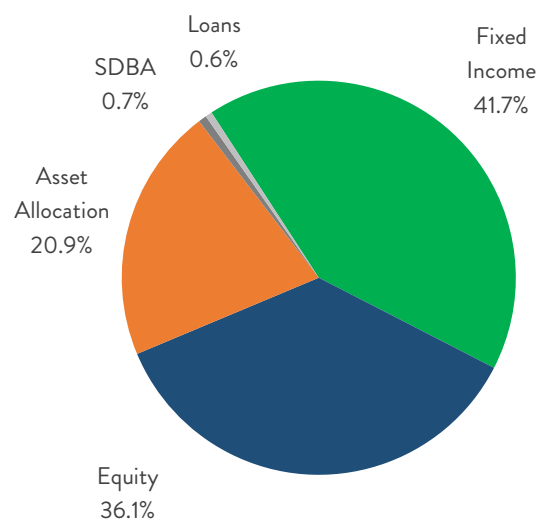
\$271,851

STATE EMPLOYEES PLAN

457(b) Deferred Compensation Plan

PLAN ASSET ALLOCATION

Fourth Quarter 2022

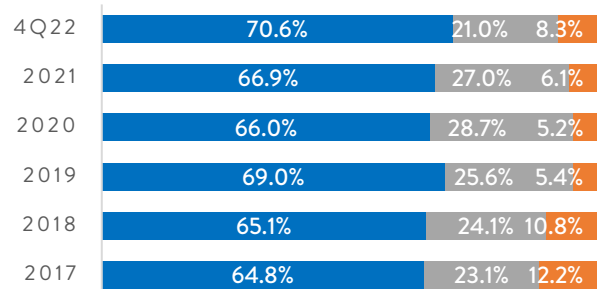


HISTORICAL PLAN ALLOCATION

Asset Class	4Q22	2021	2020	2019	2018	2017	2016	2015
Fixed Income	41.7%	35.4%	38.0%	40.1%	44.9%	42.8%	N/A	N/A
Large Cap	20.0%	23.7%	21.5%	20.6%	18.6%	19.1%	N/A	N/A
Mid Cap	11.8%	14.2%	14.5%	13.8%	12.6%	13.6%	N/A	N/A
International	4.3%	4.2%	3.8%	3.5%	3.4%	4.0%	N/A	N/A
Asset Allocation	20.9%	21.3%	21.2%	21.1%	19.4%	19.6%	N/A	N/A
SDBA	0.7%	0.7%	0.5%	0.3%	0.3%	0.3%	N/A	N/A
Loans	0.6%	0.5%	0.5%	0.6%	0.7%	0.6%	N/A	N/A

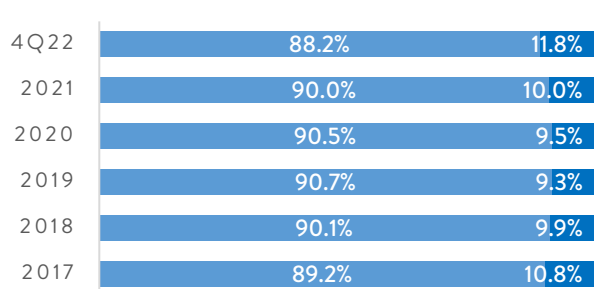
EQUITY STYLE*

■ Core ■ Growth ■ Value



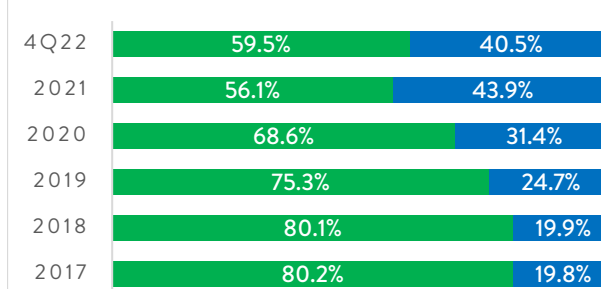
BY EQUITY REGION*

■ US ■ Non-US



ACTIVE V PASSIVE**

■ Active ■ Passive



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

**Excludes Asset Allocation, Brokerage, and Loan assets

STATE EMPLOYEES PLAN

457(b) Deferred Compensation Plan

PLAN ASSET ALLOCATION

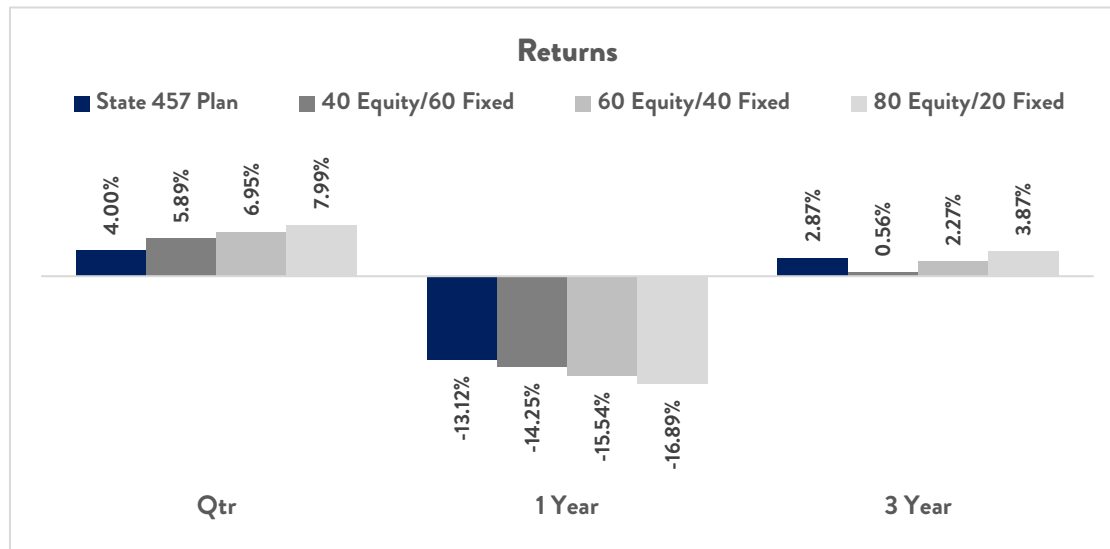
Fourth Quarter 2022

PLAN LEVEL CASH FLOWS

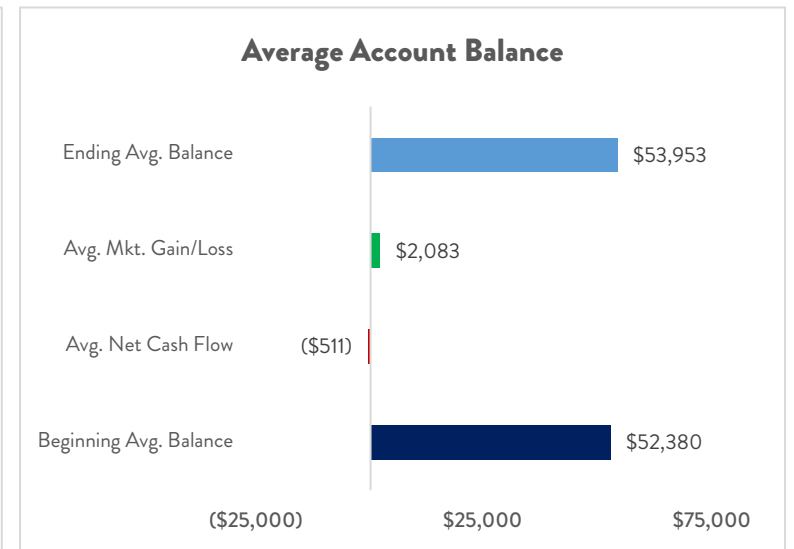
	Beginning Value	Cash Flow (+)	Cash Flow (-)	Transfer	Market Gain/Loss	Ending Value
Fixed Income	\$265,812,574	\$1,763,737	(\$7,696,136)	\$1,487,962	\$2,138,107	\$263,506,246
Large Cap	\$120,607,458	\$1,426,106	(\$2,312,193)	(\$26,601)	\$6,589,361	\$126,284,132
Mid Cap	\$71,881,435	\$811,676	(\$1,049,465)	(\$861,217)	\$4,038,975	\$74,821,404
International	\$23,486,333	\$403,908	(\$667,951)	\$360,556	\$3,427,614	\$27,010,460
Asset Allocation	\$123,884,146	\$3,089,543	(\$1,919,470)	(\$777,161)	\$7,875,028	\$132,152,087
SDBA	\$4,035,768	\$0	\$0	\$23,663	\$179,989	\$4,239,420
Total	\$609,707,715	\$7,494,971	(\$13,645,214)	\$207,202	\$24,249,075	\$628,013,749

HISTORICAL PLAN CASH FLOWS

	Beginning Value	Net Cash Flow	Market Gain/Loss	Ending Value
4Q22	\$609,707,715	(\$5,943,040)	\$24,249,075	\$628,013,749
YTD	\$736,232,396	(\$11,933,591)	(\$96,285,055)	\$628,013,749
2021	\$680,605,231	(\$16,866,120)	\$72,493,284	\$736,232,396
2020	\$608,234,330	(\$6,442,157)	\$78,813,059	\$680,605,231
2019	\$537,863,111	(\$14,358,576)	\$84,729,795	\$608,234,330
2018	\$562,293,890	(\$11,362,468)	(\$13,068,311)	\$537,863,111



Equity Indices: Russell 3000, MSCI ACWI ex USA; Fixed Indices: US Treasury 3 Mo T-Bill, Bloomberg Global Aggregate Bond (rebalanced quarterly)



This page left blank intentionally.

POLITICAL SUBDIVISIONS

457(b) Deferred Compensation Plan

PLAN ASSET ALLOCATION

Fourth Quarter 2022

Fixed Income	Ticker	Assets	%
Voya Fixed Account	-	\$83,778,061	35.9%
Vanguard Total Bond Market Index I	VBPIX	\$8,218,013	3.5%
Sterling Capital Total Return Bond R6	STRDX	\$334,476	0.1%
Total		\$92,330,550	39.6%

Large Cap	Ticker	Assets	%
MFS Value R4	MEIUX	\$6,034,322	2.6%
Vanguard Institutional Index Instl Plus	VIIIIX	\$31,240,316	13.4%
T. Rowe Price Growth Stock I	PRUFIX	\$14,659,447	6.3%
Total		\$51,934,085	22.3%

Mid Cap	Ticker	Assets	%
Vanguard Mid-Cap Value Index Adm	VMVAX	\$2,249,185	1.0%
Vanguard Extended Market Index Instl Plus	VEMPX	\$23,195,218	9.9%
Vanguard Mid-Cap Growth Index Adm	VMGMX	\$3,919,755	1.7%
Total		\$29,364,159	12.6%

International	Ticker	Assets	%
Vanguard Instl Total Intl Stock Mkt Index Trust	-	\$11,507,070	4.9%
American Funds EuroPacific Growth R6	RERGX	\$1,333,763	0.6%
Total		\$12,840,834	5.5%

Asset Allocation	Ticker	Assets	%
Vanguard Target Retirement Income Trust II	-	\$4,443,978	1.9%
Vanguard Target Retirement 2020 Trust II	-	\$2,223,694	1.0%
Vanguard Target Retirement 2025 Trust II	-	\$7,926,726	3.4%
Vanguard Target Retirement 2030 Trust II	-	\$3,248,701	1.4%
Vanguard Target Retirement 2035 Trust II	-	\$9,951,822	4.3%
Vanguard Target Retirement 2040 Trust II	-	\$2,104,865	0.9%
Vanguard Target Retirement 2045 Trust II	-	\$8,139,401	3.5%
Vanguard Target Retirement 2050 Trust II	-	\$2,002,737	0.9%
Vanguard Target Retirement 2055 Trust II	-	\$2,636,313	1.1%
Vanguard Target Retirement 2060 Trust II	-	\$1,088,539	0.5%
Vanguard Target Retirement 2065 Trust II	-	\$390,248	0.2%
Vanguard Target Retirement 2070 Trust II	-	\$0	0.0%
Total		\$44,157,024	18.9%

Miscellaneous	Ticker	Assets	%
Self-Directed Brokerage Account	-	\$2,563,021	1.1%
Participant Loans	-	\$5,615	0.0%
Total		\$2,568,636	1.1%

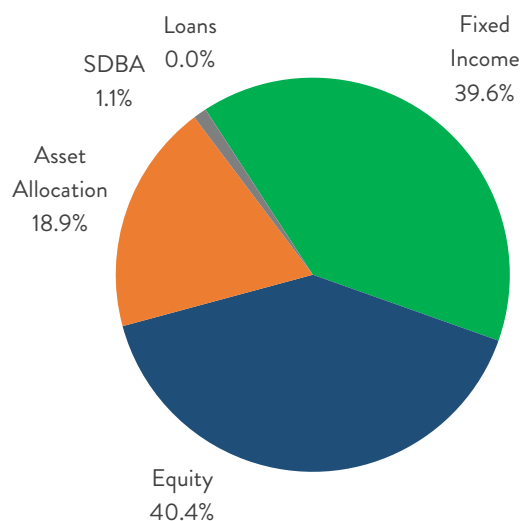
TOTAL PLAN ASSETS **\$233,195,288**

POLITICAL SUBDIVISIONS

457(b) Deferred Compensation Plan

PLAN ASSET ALLOCATION

Fourth Quarter 2022

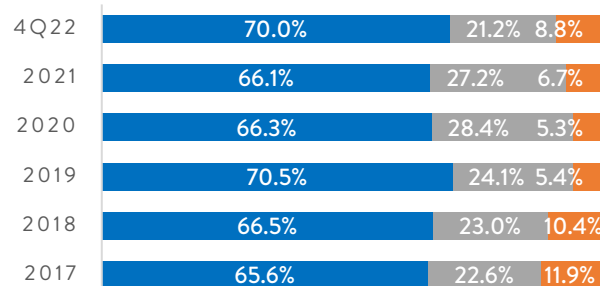


HISTORICAL PLAN ALLOCATION

Asset Class	4Q22	2021	2020	2019	2018	2017	2016	2015
Fixed Income	39.6%	34.5%	37.9%	37.5%	46.2%	42.5%	N/A	N/A
Large Cap	22.3%	25.5%	24.5%	24.4%	17.5%	22.8%	N/A	N/A
Mid Cap	12.6%	15.1%	15.2%	15.3%	15.1%	15.0%	N/A	N/A
International	5.5%	5.5%	5.3%	5.5%	5.2%	5.1%	N/A	N/A
Asset Allocation	18.9%	18.0%	16.2%	16.6%	15.6%	14.0%	N/A	N/A
SDBA	1.1%	1.5%	0.9%	0.7%	0.5%	0.6%	N/A	N/A
Loans	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	N/A	N/A

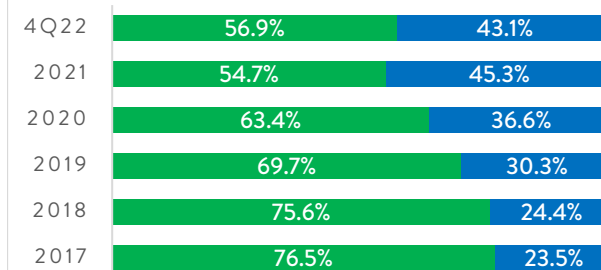
EQUITY STYLE*

■ Core ■ Growth ■ Value



ACTIVE V PASSIVE**

■ Active ■ Passive



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

**Excludes Asset Allocation, Brokerage, and Loan assets

POLITICAL SUBDIVISIONS

457(b) Deferred Compensation Plan

PLAN ASSET ALLOCATION

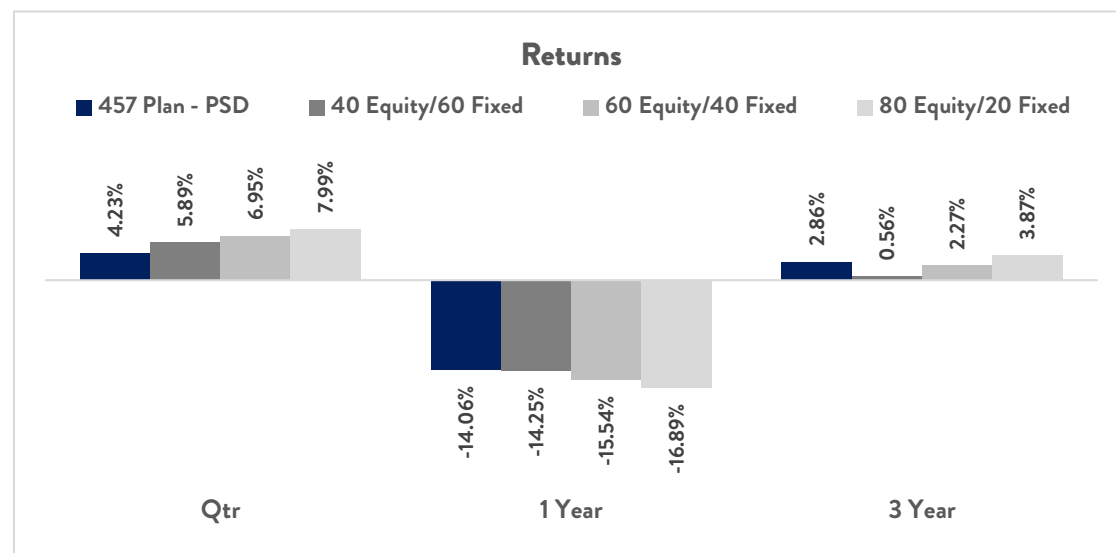
Fourth Quarter 2022

PLAN LEVEL CASH FLOWS

	Beginning Value	Cash Flow (+)	Cash Flow (-)	Transfer	Market Gain/Loss	Ending Value
Fixed Income	\$94,134,620	\$616,774	(\$3,276,801)	\$93,990	\$761,967	\$92,330,550
Large Cap	\$48,535,905	\$727,602	(\$579,585)	\$707,267	\$2,542,896	\$51,934,085
Mid Cap	\$27,860,108	\$463,403	(\$267,820)	(\$265,020)	\$1,573,487	\$29,364,159
International	\$11,082,749	\$220,531	(\$180,182)	\$94,695	\$1,623,042	\$12,840,834
Asset Allocation	\$40,332,883	\$2,053,470	(\$547,064)	(\$562,496)	\$2,880,231	\$44,157,024
SDBA	\$2,460,611	\$0	\$0	\$0	\$102,410	\$2,563,021
Total	\$224,406,878	\$4,081,779	(\$4,851,452)	\$68,435	\$9,484,033	\$233,189,673

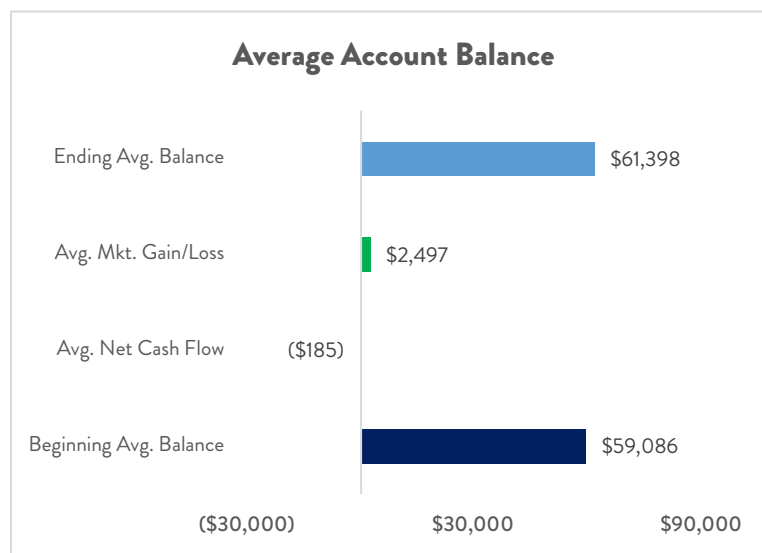
HISTORICAL PLAN CASH FLOWS

	Beginning Value	Net Cash Flow	Market Gain/Loss	Ending Value
4Q22	\$224,406,878	(\$701,237)	\$9,484,033	\$233,189,673
YTD	\$268,237,618	\$2,772,040	(\$37,819,985)	\$233,189,673
2021	\$244,053,779	(\$3,563,244)	\$27,747,083	\$268,237,618
2020	\$211,520,904	\$2,964,561	\$29,568,315	\$244,053,779
2019	\$174,082,438	\$7,146,048	\$30,292,417	\$211,520,904
2018	\$178,524,895	\$683,229	(\$5,125,686)	\$174,082,438



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

Aggregate Bond (rebalanced quarterly)



This page left blank intentionally.

NEVADA SYSTEM OF HIGHER EDUCATION

457(b) Deferred Compensation Plan

PLAN ASSET ALLOCATION

Fourth Quarter 2022

Fixed Income	Ticker	Assets	%
Voya Fixed Account	-	\$16,256,454	19.5%
Vanguard Total Bond Market Index I	VBPIX	\$3,885,380	4.7%
Sterling Capital Total Return Bond R6	STRDX	\$394,518	0.5%
Total		\$20,536,353	24.6%

Large Cap	Ticker	Assets	%
MFS Value R4	MEIUX	\$1,572,445	1.9%
Vanguard Institutional Index Instl Plus	VIIIIX	\$13,895,714	16.6%
T. Rowe Price Growth Stock I	PRUFIX	\$4,286,143	5.1%
Total		\$19,754,303	23.7%

Mid Cap	Ticker	Assets	%
Vanguard Mid-Cap Value Index Adm	VMVAX	\$1,322,975	1.6%
Vanguard Extended Market Index Instl Plus	VEMPX	\$7,983,306	9.6%
Vanguard Mid-Cap Growth Index Adm	VMGMX	\$2,473,905	3.0%
Total		\$11,780,186	14.1%

International	Ticker	Assets	%
Vanguard Instl Total Intl Stock Mkt Index Trust	-	\$4,131,039	4.9%
American Funds EuroPacific Growth R6	REGRX	\$1,168,366	1.4%
Total		\$5,299,404	6.3%

Asset Allocation	Ticker	Assets	%
Vanguard Target Retirement Income Trust II	-	\$4,570,920	5.5%
Vanguard Target Retirement 2020 Trust II	-	\$2,473,407	3.0%
Vanguard Target Retirement 2025 Trust II	-	\$5,792,479	6.9%
Vanguard Target Retirement 2030 Trust II	-	\$2,990,242	3.6%
Vanguard Target Retirement 2035 Trust II	-	\$4,550,357	5.4%
Vanguard Target Retirement 2040 Trust II	-	\$1,315,530	1.6%
Vanguard Target Retirement 2045 Trust II	-	\$2,342,409	2.8%
Vanguard Target Retirement 2050 Trust II	-	\$698,346	0.8%
Vanguard Target Retirement 2055 Trust II	-	\$573,831	0.7%
Vanguard Target Retirement 2060 Trust II	-	\$67,830	0.1%
Vanguard Target Retirement 2065 Trust II	-	\$240,204	0.3%
Vanguard Target Retirement 2070 Trust II	-	\$0	0.0%
Total		\$25,615,555	30.7%

Miscellaneous	Ticker	Assets	%
Self-Directed Brokerage Account	-	\$533,146	0.6%
Total		\$533,146	0.6%

TOTAL PLAN ASSETS

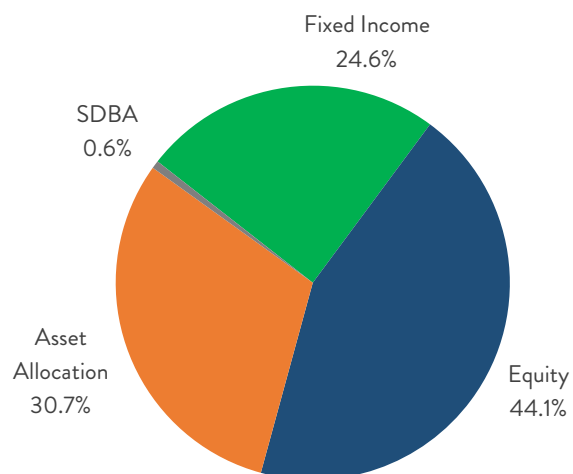
\$83,518,946

NEVADA SYSTEM OF HIGHER EDUCATION

457(b) Deferred Compensation Plan

PLAN ASSET ALLOCATION

Fourth Quarter 2022

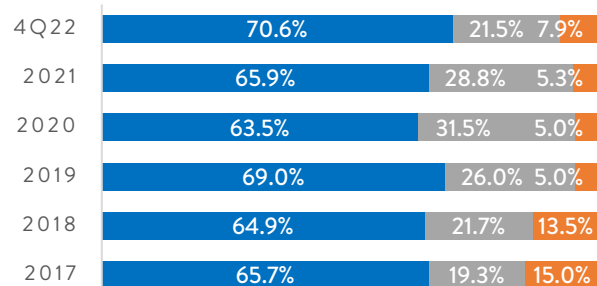


HISTORICAL PLAN ALLOCATION

Asset Class	4Q22	2021	2020	2019	2018	2017	2016	2015
Fixed Income	24.6%	22.3%	22.9%	22.4%	27.3%	26.9%	N/A	N/A
Large Cap	23.7%	26.1%	24.4%	24.4%	24.1%	24.7%	N/A	N/A
Mid Cap	14.1%	15.6%	17.3%	17.1%	15.7%	16.8%	N/A	N/A
International	6.3%	6.1%	5.8%	5.9%	5.8%	6.8%	N/A	N/A
Asset Allocation	30.7%	29.4%	29.1%	29.9%	26.8%	24.7%	N/A	N/A
SDBA	0.6%	0.6%	0.5%	0.3%	0.3%	0.1%	N/A	N/A

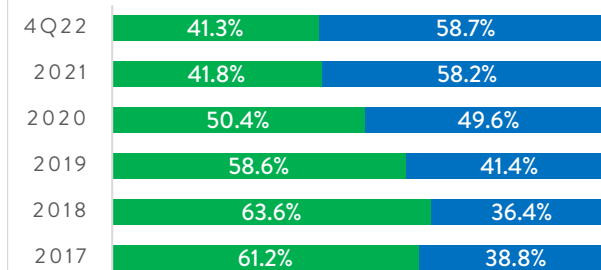
EQUITY STYLE*

■ Core ■ Growth ■ Value



ACTIVE V PASSIVE**

■ Active ■ Passive



*Excludes Fixed Income, Asset Allocation, and Brokerage assets

**Excludes Asset Allocation and Loan assets

NEVADA SYSTEM OF HIGHER EDUCATION

457(b) Deferred Compensation Plan

PLAN ASSET ALLOCATION

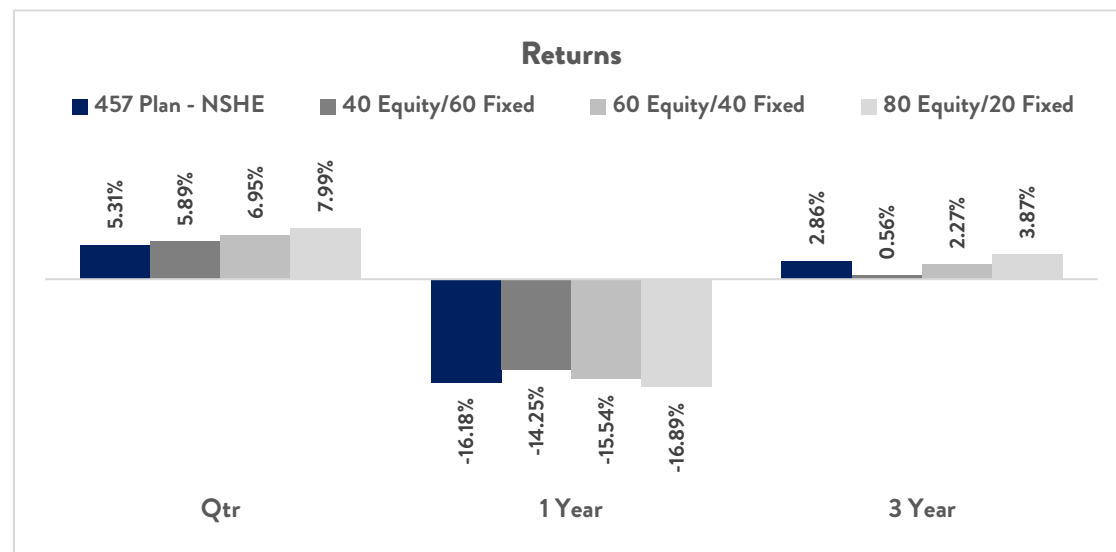
Fourth Quarter 2022

PLAN LEVEL CASH FLOWS

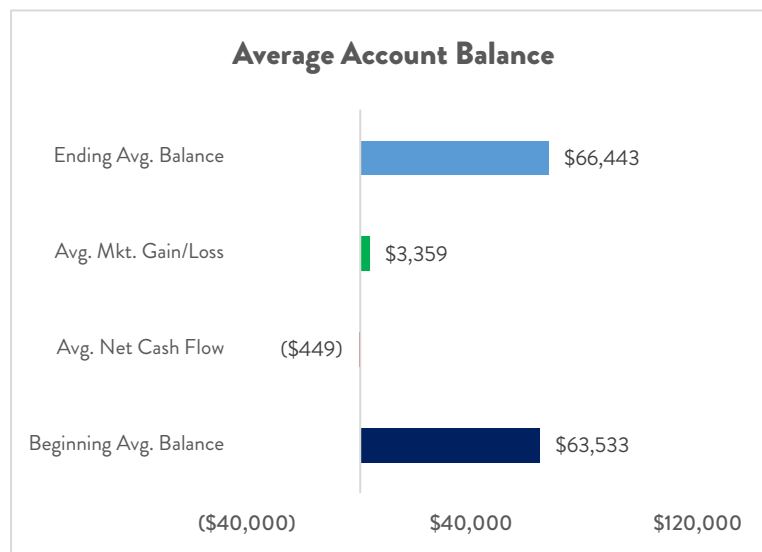
	Beginning Value	Cash Flow (+)	Cash Flow (-)	Transfer	Market Gain/Loss	Ending Value
Fixed Income	\$20,792,962	\$158,899	(\$710,942)	\$96,141	\$199,293	\$20,536,353
Large Cap	\$18,304,773	\$282,135	(\$400,281)	\$501,258	\$1,066,418	\$19,754,303
Mid Cap	\$11,413,214	\$164,389	(\$159,649)	(\$329,752)	\$691,984	\$11,780,186
International	\$4,692,147	\$79,213	(\$253,331)	\$86,373	\$695,002	\$5,299,404
Asset Allocation	\$24,144,725	\$751,907	(\$550,455)	(\$279,821)	\$1,549,199	\$25,615,555
SDBA	\$513,289	\$0	\$0	\$0	\$19,857	\$533,146
Total	\$79,861,110	\$1,436,543	(\$2,074,657)	\$74,199	\$4,221,752	\$83,518,946

HISTORICAL PLAN CASH FLOWS

	Beginning Value	Net Cash Flow	Market Gain/Loss	Ending Value
4Q22	\$79,861,110	(\$563,916)	\$4,221,752	\$83,518,946
YTD	\$99,514,917	\$50,322	(\$16,046,293)	\$83,518,946
2021	\$87,552,294	\$1,027,017	\$10,935,606	\$99,514,917
2020	\$71,011,498	\$4,420,058	\$12,120,738	\$87,552,294
2019	\$59,283,975	(\$281,661)	\$12,009,184	\$71,011,498
2018	\$60,761,575	\$1,182,723	(\$2,660,323)	\$59,283,975



Equity Indices: Russell 3000, MSCI ACWI ex USA; Fixed Indices: US Treasury 3 Mo T-Bill, Bloomberg Global Aggregate Bond (rebalanced quarterly)



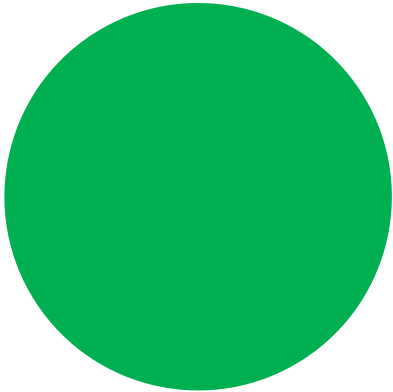
This page left blank intentionally.

Fixed Income	Ticker	Assets	%
Voya Fixed Account - FICA	-	\$58,595,787	100.0%
Total		\$58,595,787	100.0%

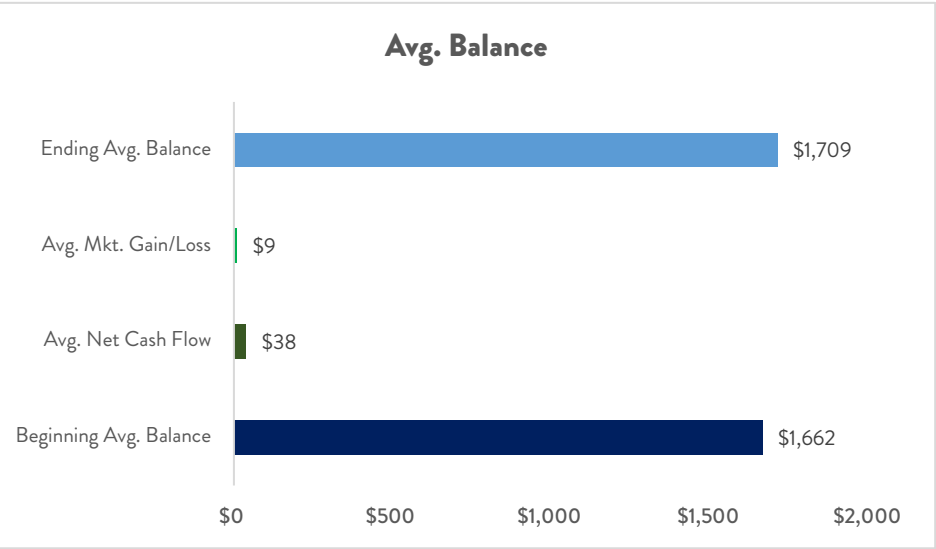
HISTORICAL PLAN CASH FLOWS

	Beginning Value	Net Cash Flow	Market Gain/Loss	Ending Value
4Q22	\$56,967,098	\$1,307,455	\$321,233	\$58,595,787
YTD	\$53,114,954	\$4,247,755	\$1,233,078	\$58,595,787
2021	\$48,389,052	\$3,600,343	\$1,125,559	\$53,114,954
2020	\$45,103,420	\$2,240,312	\$1,045,320	\$48,389,052
2019	\$40,981,957	\$3,480,620	\$640,843	\$45,103,420
2018	\$36,814,369	\$3,585,657	\$581,931	\$40,981,957

TOTAL PLAN ASSETS **\$58,595,787**
Administrative Account Balance (1/18/23) \$31,839



Fixed Income
100.0%



This page left blank intentionally.

Section 3

STATE OF NEVADA

Combined Retirement Plans

INVESTMENT POLICY STATEMENT COMPLIANCE REPORT

Fourth Quarter 2022

Investment Policy Status

Key: P Pass / P Caution / ● Fail

	Performance Factors	Qualitative Factors	On-Watch Information	Notes	Added to Plan
Voya Fixed Account	P	P	-		4Q2004
Voya Fixed Account - FICA	P	P	-		4Q2004
Vanguard Total Bond Market Index I	P	P	-		1Q2010
Sterling Capital Total Return Bond R6	P	P	-		3Q2021
MFS Value R4	P	P	-		3Q2016
Vanguard Institutional Index Instl Plus	P	P	-		3Q2021
T. Rowe Price Growth Stock I	●	P	1Q22 (Performance)	Trailing benchmark and Peer Group for 5-year period. To be replaced with JP Morgan Large Growth R6 (JLGMX).	4Q2017
Vanguard Mid-Cap Value Index Adm	P	P	-		2Q2017
Vanguard Extended Market Index Instl Plus	P	P	-		3Q2021
Vanguard Mid-Cap Growth Index Adm	P	P	-		2Q2022
Vanguard Instl Total Intl Stock Mkt Index Trust	P	P	-		4Q2022
American Funds EuroPacific Growth R6	P	P	-	Trailing Peer Group for 5-year period.	1Q2019
Vanguard Target Retirement Income Trust II	P	P	-		4Q2022
Vanguard Target Retirement 2020 Trust II	P	P	-		4Q2022
Vanguard Target Retirement 2025 Trust II	P	P	-		4Q2022
Vanguard Target Retirement 2030 Trust II	P	P	-		4Q2022
Vanguard Target Retirement 2035 Trust II	P	P	-		4Q2022
Vanguard Target Retirement 2040 Trust II	P	P	-		4Q2022
Vanguard Target Retirement 2045 Trust II	P	P	-		4Q2022
Vanguard Target Retirement 2050 Trust II	P	P	-		4Q2022
Vanguard Target Retirement 2055 Trust II	P	P	-		4Q2022
Vanguard Target Retirement 2060 Trust II	P	P	-		4Q2022
Vanguard Target Retirement 2065 Trust II	P	P	-		4Q2022
Vanguard Target Retirement 2070 Trust II	P	P	-		4Q2022

STATE OF NEVADA

Combined Retirement Plans

		Annualized											
		QTR	YTD	1Yr	3Yr	5Yr	10Yr	15Yr	2021	2020	2019	2018	2017
Voya Fixed Account		0.74	3.00	3.00	3.07	2.89			3.10	3.10	2.70	2.54	2.75
5 Yr Constant Maturity US Treasury Yield		0.99	3.00	3.00	1.46	1.81	1.68	1.73	0.85	0.54	1.96	2.75	1.91
+/- Index		(0.25)	0.00	0.00	1.61	1.08	-	-	2.25	2.56	0.74	(0.21)	0.84
US Stable Value		3	1	1	1	1	-	N/A	2	1	4	5	1
		QTR	YTD	1Yr	3Yr	5Yr	10Yr	15Yr	2021	2020	2019	2018	2017
Voya Fixed Account FICA		0.56	2.25	2.25	2.25	1.95			2.25	2.25	1.50	1.50	1.50
5 Yr Constant Maturity US Treasury Yield		0.99	3.00	3.00	1.46	1.81	1.68	1.73	0.85	0.54	1.96	2.75	1.91
+/- Index		(0.43)	(0.75)	(0.75)	0.79	0.14	-	-	1.40	1.71	(0.46)	(1.25)	(0.41)
US Stable Value		24	8	8	5	29	-	N/A	3	10	97	83	56
		QTR	YTD	1Yr	3Yr	5Yr	10Yr	15Yr	2021	2020	2019	2018	2017
Vanguard Total Bond Market Index I		1.67	13.15	13.15	2.73	0.01	1.02	2.63	1.65	7.74	8.73	0.01	3.57
Bloomberg US Aggregate Bond Index		1.87	-13.01	-13.01	-2.71	0.02	1.06	2.66	-1.54	7.51	8.72	0.01	3.54
+/- Index		(0.20)	(0.14)	(0.14)	(0.02)	(0.01)	(0.04)	(0.03)	(0.11)	0.23	0.01	(0.02)	0.03
US Fund Intermediate Core Bond		45	34	34	47	35	40	N/A	55	54	34	27	38
		QTR	YTD	1Yr	3Yr	5Yr	10Yr	15Yr	2021	2020	2019	2018	2017
Sterling Capital Total Return Bond R6		1.57	13.15	13.15	2.08	0.48	1.58	3.35	1.12	9.35	9.37	0.27	4.33
Bloomberg US Aggregate Bond Index		1.87	-13.01	-13.01	-2.71	0.02	1.06	2.66	-1.54	7.51	8.72	0.01	3.54
+/- Index		(0.30)	(0.14)	(0.14)	0.63	0.46	0.52	0.69	0.42	1.84	0.65	(0.28)	0.79
US Fund Intermediate Core Bond		57	34	34	15	11	6	N/A	28	15	18	42	10
		QTR	YTD	1Yr	3Yr	5Yr	10Yr	15Yr	2021	2020	2019	2018	2017
MFS Value R4		13.58	5.90	5.90	7.03	7.53	11.18	7.73	25.42	3.91	30.08	9.87	17.74
Russell 1000 Value Index		12.42	-7.54	-7.54	5.96	6.67	10.29	6.96	25.16	2.80	26.54	-8.27	13.66
+/- Index		1.16	1.64	1.64	1.07	0.86	0.89	0.77	0.26	1.11	3.54	(1.60)	4.08
US Fund Large Value		31	53	53	48	38	18	N/A	59	37	7	68	31

STATE OF NEVADA

Combined Retirement Plans

	QTR	YTD	1Yr	Annualized				2021	2020	2019	2018	2017
				3Yr	5Yr	10Yr	15Yr					
Vanguard Institutional Index Instl Plus	7.55	18.13	18.13	7.65	9.41	12.55	8.82	28.69	18.41	31.48	4.41	21.82
S&P 500 Index	7.56	-18.11	-18.11	7.66	9.42	12.56	8.81	28.71	18.40	31.49	-4.38	21.83
+/- Index	(0.01)	(0.02)	(0.02)	(0.01)	(0.01)	(0.01)	0.01	(0.02)	0.01	0.00	(0.02)	(0.02)
US Fund Large Blend	56	49	49	30	20	11	N/A	21	32	22	22	32
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	15Yr	2021	2020	2019	2018	2017
T. Rowe Price Growth Stock I	2.23	40.05	40.05	0.41	5.10	11.35	8.36	20.18	37.09	30.98	0.89	33.84
Russell 1000 Growth Index	2.20	-29.14	-29.14	7.79	10.96	14.10	10.32	27.60	38.49	36.39	-1.51	30.21
+/- Index	(4.43)	(10.91)	(10.91)	(8.20)	(5.86)	(2.75)	(1.96)	(7.42)	(1.40)	(5.41)	0.62	3.63
US Fund Large Growth	91	91	91	90	90	64	N/A	60	40	63	40	16
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	15Yr	2021	2020	2019	2018	2017
Vanguard Mid-Cap Value Index Adm	12.11	7.90	7.90	6.74	6.39	10.98	8.69	28.76	2.54	27.99	12.42	17.04
Vanguard US Mid Cap Value Index	12.12	-7.84	-7.84	6.76	6.42	11.02	8.74	28.83	2.50	28.05	-12.42	17.12
+/- Index	(0.01)	(0.06)	(0.06)	(0.02)	(0.03)	(0.04)	(0.05)	(0.07)	0.04	(0.06)	0.00	(0.08)
US Fund Mid-Cap Value	42	45	45	45	39	9	N/A	47	52	42	36	15
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	15Yr	2021	2020	2019	2018	2017
Vanguard Extended Market Index Instl Plus	5.11	26.45	26.45	3.04	4.90	9.65	7.79	12.48	32.24	28.07	9.35	18.13
Vanguard Extended Market Index	5.07	-26.54	-26.54	2.94	4.77	9.52	7.68	12.35	32.17	27.95	-9.57	18.11
+/- Index	0.04	0.09	0.09	0.10	0.13	0.13	0.11	0.13	0.07	0.12	0.22	0.02
US Fund Mid-Cap Blend	94	98	98	87	75	58	N/A	95	2	43	29	30
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	15Yr	2021	2020	2019	2018	2017
Vanguard Mid-Cap Growth Index Adm	5.69	28.84	28.84	4.86	7.81	10.90	7.77	20.48	34.48	33.86	5.60	21.83
Vanguard US Mid Cap Growth Index	5.70	-28.83	-28.83	4.89	7.86	10.93	7.74	20.51	34.56	33.93	-5.57	21.92
+/- Index	(0.01)	(0.01)	(0.01)	(0.03)	(0.05)	(0.03)	0.03	(0.03)	(0.08)	(0.07)	(0.04)	(0.10)
US Fund Mid-Cap Growth	47	55	55	36	43	45	N/A	15	54	49	56	79

STATE OF NEVADA

Combined Retirement Plans

	QTR	YTD	1Yr	Annualized				2021	2020	2019	2018	2017
				3Yr	5Yr	10Yr	15Yr					
Vanguard Instl Total Intl Stock Mkt Index Trust	14.73	15.92	15.92	0.63	1.21			8.73	11.48	21.68	14.35	27.61
Vanguard Total International Stock Index	14.14	-16.10	-16.10	0.52	1.10	4.20	1.67	8.84	11.24	21.81	-14.62	27.41
+/- Index	0.59	0.18	0.18	0.11	0.11	-	-	(0.11)	0.24	(0.13)	0.27	0.20
US Fund Foreign Large Blend	79	50	50	49	49	-	N/A	63	38	58	38	28
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	15Yr	2021	2020	2019	2018	2017
American Funds EuroPacific Growth R6	13.78	22.72	22.72	0.15	1.54	5.30	3.10	2.84	25.27	27.40	14.91	31.17
MSCI ACWI Ex-USA Growth (Net) Index	12.89	-23.05	-23.05	-0.40	1.49	4.68	2.10	5.09	22.20	27.34	-14.43	32.01
+/- Index	0.89	0.33	0.33	0.25	0.05	0.62	1.00	(2.25)	3.06	0.06	(0.48)	(0.84)
US Fund Foreign Large Growth	50	30	30	54	56	37	N/A	77	34	63	56	48
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	15Yr	2021	2020	2019	2018	2017
Vanguard Target Retirement Income Trust II	3.78	12.73	12.73	0.37	2.34	3.66	4.07	5.25	10.08	13.28	2.00	8.60
Vanguard Retirement Income Index	3.95	-12.44	-12.44	0.72	2.58	3.86	4.18	5.43	10.70	13.40	-1.98	8.67
+/- Index	(0.17)	(0.29)	(0.29)	(0.35)	(0.24)	(0.20)	(0.11)	(0.18)	(0.63)	(0.12)	(0.03)	(0.07)
US Fund Target-Date Retirement	60	49	49	31	28	27	N/A	64	29	44	18	46
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	15Yr	2021	2020	2019	2018	2017
Vanguard Target Retirement 2020 Trust II	5.00	14.14	14.14	1.37	3.27	5.89	4.87	8.24	12.10	17.69	4.19	14.19
Vanguard Retirement 2020 Index	5.12	-13.77	-13.77	1.81	3.58	6.13	5.03	8.43	12.86	17.87	-4.14	14.22
+/- Index	(0.12)	(0.37)	(0.37)	(0.44)	(0.31)	(0.24)	(0.16)	(0.19)	(0.76)	(0.18)	(0.05)	(0.03)
US Fund Target-Date 2020	68	40	40	45	35	20	N/A	60	38	32	45	19
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	15Yr	2021	2020	2019	2018	2017
Vanguard Target Retirement 2025 Trust II	6.05	15.44	15.44	1.76	3.68	6.52	5.12	9.90	13.39	19.75	5.07	16.04
Vanguard Retirement 2025 Index	6.16	-15.02	-15.02	2.23	4.01	6.77	5.30	10.10	14.19	19.93	-5.01	16.08
+/- Index	(0.11)	(0.42)	(0.42)	(0.47)	(0.33)	(0.25)	(0.18)	(0.20)	(0.79)	(0.18)	(0.07)	(0.04)
US Fund Target-Date 2025	39	48	48	35	26	16	N/A	45	29	17	43	19

STATE OF NEVADA

Combined Retirement Plans

	QTR	YTD	1Yr	Annualized				2021	2020	2019	2018	2017
				3Yr	5Yr	10Yr	15Yr					
Vanguard Target Retirement 2030 Trust II	6.79	16.16	16.16	2.19	4.02	7.07	5.32	11.46	14.19	21.15	5.79	17.60
Vanguard Retirement 2030 Index	6.92	-15.71	-15.71	2.66	4.35	7.33	5.50	11.65	14.96	21.33	-5.74	17.65
+/- Index	(0.13)	(0.45)	(0.45)	(0.47)	(0.33)	(0.26)	(0.18)	(0.19)	(0.78)	(0.18)	(0.05)	(0.05)
US Fund Target-Date 2030	42	43	43	43	34	22	N/A	53	33	35	37	33
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	15Yr	2021	2020	2019	2018	2017
Vanguard Target Retirement 2035 Trust II	7.51	16.52	16.52	2.75	4.44	7.66	5.64	13.07	14.92	22.57	6.54	19.18
Vanguard Retirement 2035 Index	7.41	-16.22	-16.22	3.14	4.73	7.91	5.79	13.24	15.67	22.76	-6.48	19.24
+/- Index	0.10	(0.30)	(0.30)	(0.39)	(0.29)	(0.25)	(0.15)	(0.17)	(0.75)	(0.19)	(0.06)	(0.06)
US Fund Target-Date 2035	57	35	35	47	35	25	N/A	74	37	45	29	37
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	15Yr	2021	2020	2019	2018	2017
Vanguard Target Retirement 2040 Trust II	8.19	16.94	16.94	3.26	4.82	8.14	5.98	14.68	15.57	23.97	7.30	20.81
Vanguard Retirement 2040 Index	8.23	-16.51	-16.51	3.70	5.14	8.42	6.14	14.85	16.31	24.19	-7.22	20.87
+/- Index	(0.04)	(0.43)	(0.43)	(0.44)	(0.32)	(0.28)	(0.16)	(0.17)	(0.73)	(0.22)	(0.08)	(0.06)
US Fund Target-Date 2040	64	33	33	44	32	20	N/A	78	39	44	32	26
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	15Yr	2021	2020	2019	2018	2017
Vanguard Target Retirement 2045 Trust II	8.90	17.33	17.33	3.79	5.20	8.41	6.14	16.33	16.27	25.07	7.86	21.51
Vanguard Retirement 2045 Index	8.99	-16.84	-16.84	4.26	5.55	8.71	6.33	16.45	17.03	25.36	-7.77	21.54
+/- Index	(0.09)	(0.49)	(0.49)	(0.47)	(0.35)	(0.30)	(0.19)	(0.12)	(0.76)	(0.29)	(0.10)	(0.03)
US Fund Target-Date 2045	52	30	30	30	25	18	N/A	61	35	36	39	21
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	15Yr	2021	2020	2019	2018	2017
Vanguard Target Retirement 2050 Trust II	9.24	17.45	17.45	3.87	5.25	8.43	6.18	16.60	16.42	25.05	7.83	21.48
Vanguard Retirement 2050 Index	9.18	-17.07	-17.07	4.30	5.58	8.72	6.34	16.77	17.18	25.36	-7.77	21.54
+/- Index	0.06	(0.38)	(0.38)	(0.43)	(0.33)	(0.29)	(0.16)	(0.17)	(0.76)	(0.31)	(0.06)	(0.05)
US Fund Target-Date 2050	42	28	28	29	22	18	N/A	62	35	42	32	27

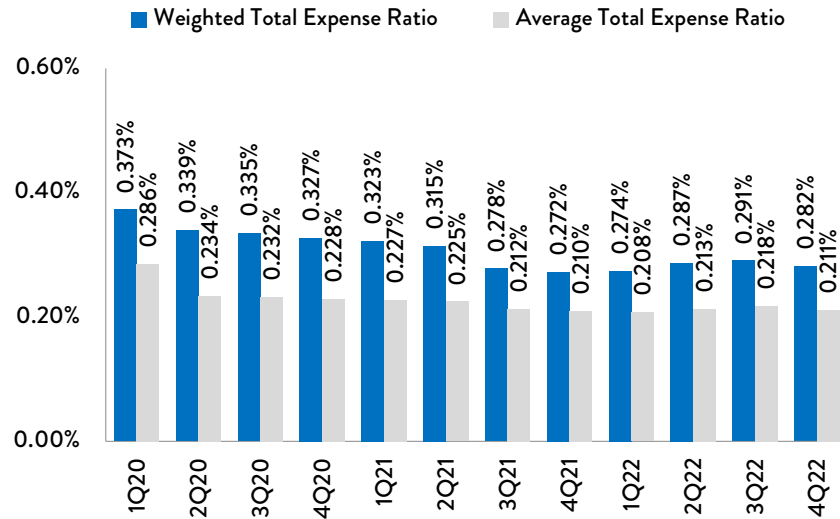
STATE OF NEVADA

Combined Retirement Plans

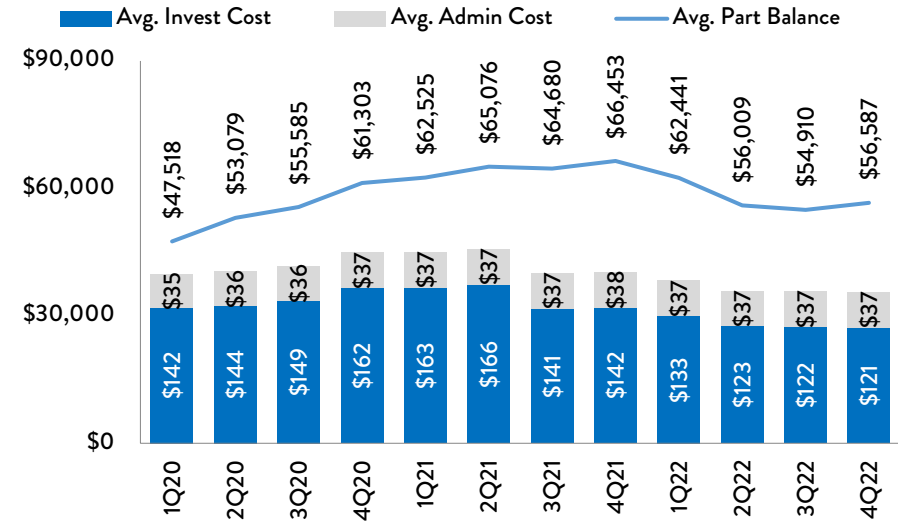
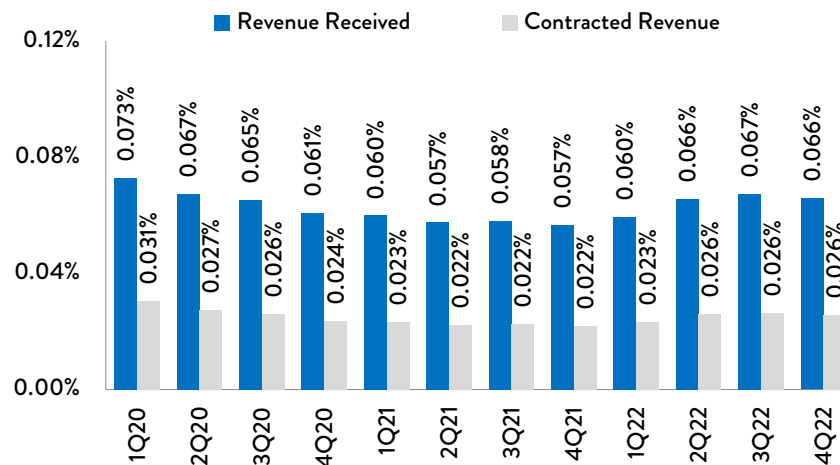
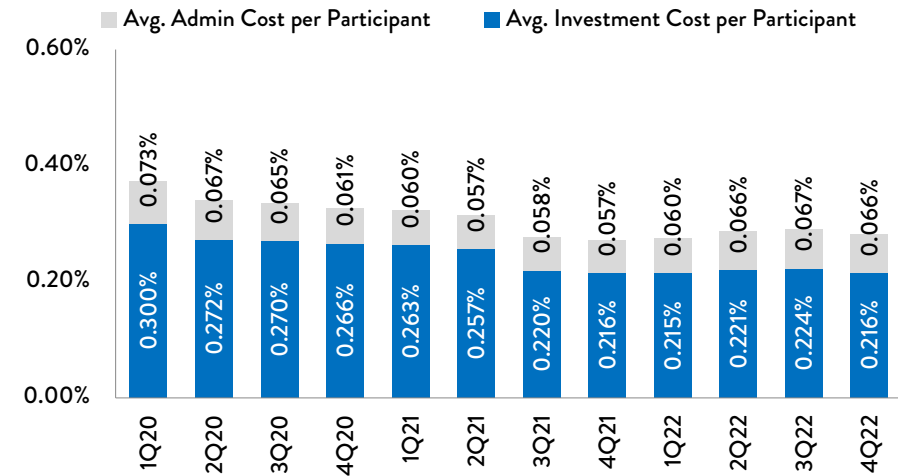
	QTR	YTD	1Yr	<i>Annualized</i>				2021	2020	2019	2018	2017
				3Yr	5Yr	10Yr	15Yr					
Vanguard Target Retirement 2055 Trust II	9.23	17.44	17.44	3.87	5.25	8.41		16.59	16.41	25.07	7.85	21.49
Vanguard Retirement 2055 Index	9.18	-17.07	-17.07	4.30	5.58	8.72	-	16.77	17.18	25.36	-7.77	21.54
+/- Index	0.05	(0.37)	(0.37)	(0.43)	(0.33)	(0.31)	-	(0.18)	(0.76)	(0.29)	(0.09)	(0.05)
US Fund Target-Date 2055	48	25	25	30	23	23	N/A	68	38	43	34	35
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	15Yr	2021	2020	2019	2018	2017
Vanguard Target Retirement 2060 Trust II	9.25	17.41	17.41	3.90	5.27	8.42		16.56	16.50	25.09	7.85	21.51
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
+/- Index	0.07	(0.34)	(0.34)	(0.40)	(0.31)	(0.30)	-	(0.21)	(0.68)	(0.27)	(0.09)	(0.03)
US Fund Target-Date 2060	51	24	24	32	27	50	N/A	73	38	48	30	34
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	15Yr	2021	2020	2019	2018	2017
Vanguard Target Retirement 2065 Trust II	9.23	17.40	17.40	3.88	5.30			16.54	16.45	25.11	7.70	
Vanguard Retirement 2065 Index	9.18	-17.07	-17.07	4.30	5.58	-	-	16.77	17.18	25.36	-7.77	-
+/- Index	0.05	(0.33)	(0.33)	(0.42)	(0.28)	-	-	(0.23)	(0.73)	(0.25)	0.07	-
US Fund Target-Date 2065+	52	18	18	28	19	-	N/A	64	51	59	-	-
	QTR	YTD	1Yr	3Yr	5Yr	10Yr	15Yr	2021	2020	2019	2018	2017
Vanguard Target Retirement 2070 Trust II	9.30											
Vanguard Retirement 2070 Index	9.18	-	-	-	-	-	-	-	-	-	-	-
+/- Index	0.12	-	-	-	-	-	-	-	-	-	-	-
US Fund Target-Date 2065+	41	-	-	-	-	-	N/A	-	-	-	-	-

Section 4

Annualized Plan Cost (%)



Average Participant Balance and Cost (\$)

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

*Administration costs are only charged to accounts with balances over \$1,000. For reporting purposes the total amounts charged are displayed relative to all participant accounts with a balance.

STATE OF NEVADA
Combined 457(b) DC Plans

PLAN FEE ANALYSIS
Fourth Quarter 2022

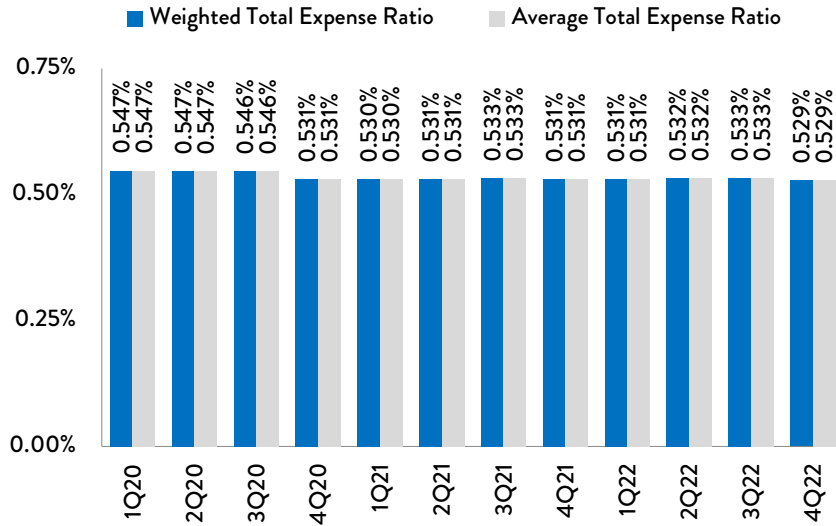
Annualized

Fund	Ticker	Quarter End Balance	Net Expense Ratio	Admin Fee	Est. Total Invest. Cost	Est. Total Admin. Cost
Voya Fixed Account	-	\$341,746,806	0.400%	0.07%	\$1,366,987	\$225,171
Vanguard Total Bond Market Index I	VBPIX	\$33,422,490	0.035%	0.07%	\$11,698	\$22,022
Sterling Capital Total Return Bond R6	STRDX	\$1,203,853	0.350%	0.07%	\$4,213	\$793
MFS Value R4*	MEIJX	\$22,045,586	0.400%	0.07%	\$88,182	\$14,525
Vanguard Institutional Index Instl Plus	VIIIX	\$124,585,406	0.020%	0.07%	\$24,917	\$82,087
T. Rowe Price Growth Stock I	PRUFX	\$51,341,528	0.510%	0.07%	\$261,842	\$33,828
Vanguard Mid-Cap Value Index Adm	VMVAX	\$8,096,976	0.070%	0.07%	\$5,668	\$5,335
Vanguard Extended Market Index Instl Plus	VEMPX	\$89,477,629	0.040%	0.07%	\$35,791	\$58,955
Vanguard Mid-Cap Growth Index Adm	VMGMX	\$18,391,145	0.070%	0.07%	\$12,874	\$12,118
Vanguard Instl Total Intl Stock Mkt Index Trust	-	\$39,026,556	0.080%	0.07%	\$31,221	\$25,714
American Funds EuroPacific Growth R6	RERGX	\$6,124,143	0.460%	0.07%	\$28,171	\$4,035
Vanguard Target Retirement Income Trust II	-	\$40,019,790	0.075%	0.07%	\$30,015	\$26,368
Vanguard Target Retirement 2020 Trust II	-	\$11,372,661	0.075%	0.07%	\$8,529	\$7,493
Vanguard Target Retirement 2025 Trust II	-	\$40,837,619	0.075%	0.07%	\$30,628	\$26,907
Vanguard Target Retirement 2030 Trust II	-	\$13,787,270	0.075%	0.07%	\$10,340	\$9,084
Vanguard Target Retirement 2035 Trust II	-	\$48,615,549	0.075%	0.07%	\$36,462	\$32,032
Vanguard Target Retirement 2040 Trust II	-	\$7,655,283	0.075%	0.07%	\$5,741	\$5,044
Vanguard Target Retirement 2045 Trust II	-	\$24,408,779	0.075%	0.07%	\$18,307	\$16,083
Vanguard Target Retirement 2050 Trust II	-	\$5,077,521	0.075%	0.07%	\$3,808	\$3,345
Vanguard Target Retirement 2055 Trust II	-	\$6,899,513	0.075%	0.07%	\$5,175	\$4,546
Vanguard Target Retirement 2060 Trust II	-	\$2,020,317	0.075%	0.07%	\$1,515	\$1,331
Vanguard Target Retirement 2065 Trust II	-	\$1,230,346	0.075%	0.07%	\$923	\$811
Vanguard Target Retirement 2070 Trust II	-	\$19	0.075%	0.07%	\$0	\$0
Self-Directed Brokerage Account	-	\$7,335,587	-	0.07%	-	\$4,833
TOTAL		\$944,722,368			\$2,023,008	\$622,462

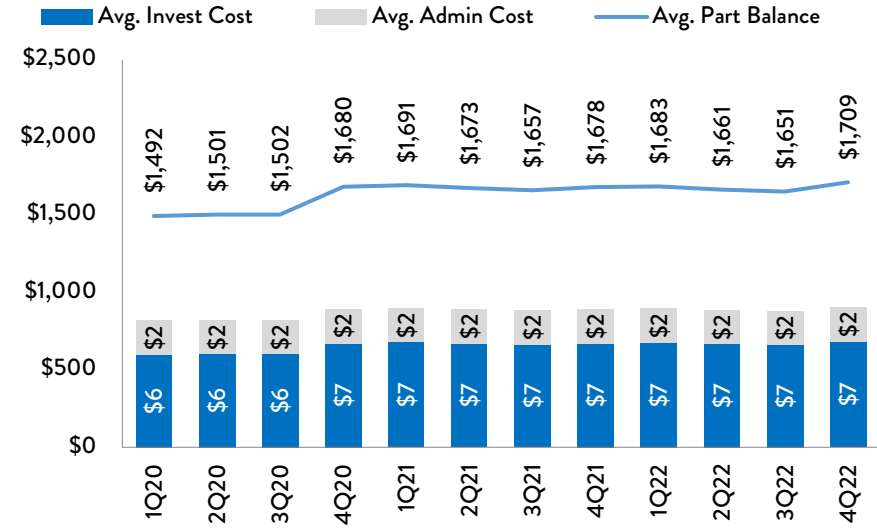
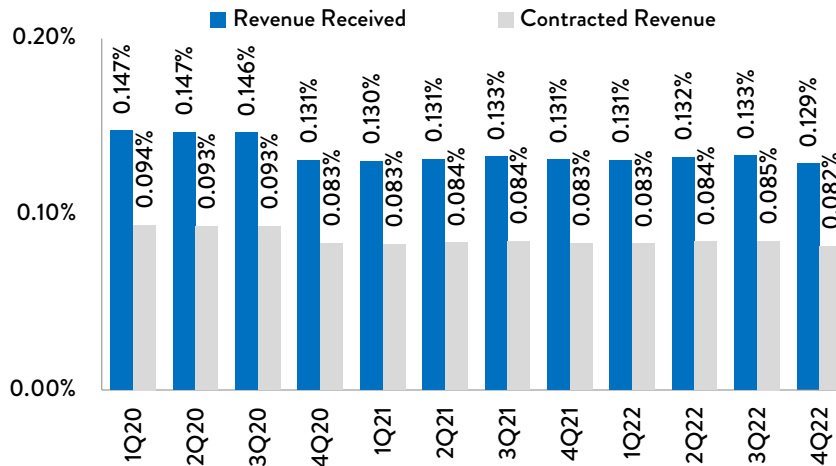
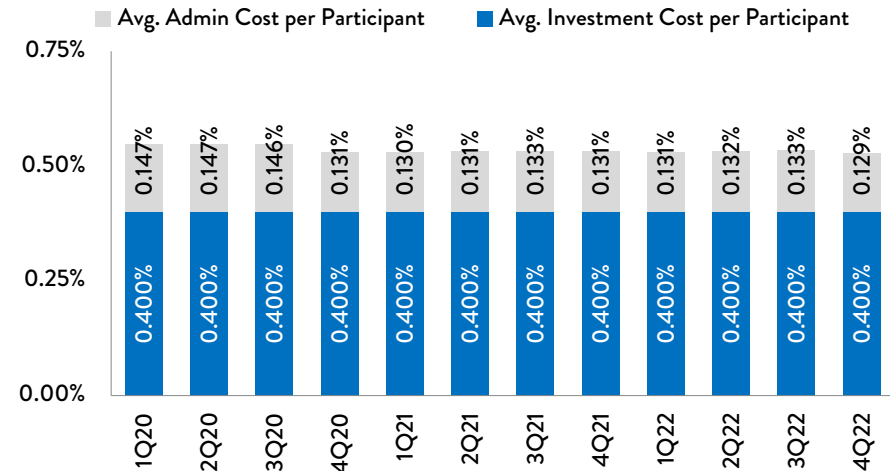
Plan Administration Cost	Quarter	Annualized
Plan Generated Revenue (\$41.00 per ppt with >\$1,000 bal) (est):	\$155,616	\$622,462
Contracted Revenue (\$14.50 per participant) (est):	\$60,519	\$242,078
Net Excess/(Deficit) (est):	\$95,096	\$380,385

*Revenue derived from funds credited to participant accounts in which they are held. For fee reporting purposes, the credit has been used to offset the reported fund expense ratio.
An expense ratio of 0.40% was assumed for the Voya Fixed Account.

Annualized Plan Cost (%)



Average Participant Balance and Cost (\$)

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

STATE OF NEVADA
FICA Alternative OBRA Plan

PLAN FEE ANALYSIS
Fourth Quarter 2022

Annualized

Fund	Ticker	Quarter End Balance	Net Expense Ratio	Admin Fee	Est. Total Invest. Cost	Est. Total Admin. Cost
Voya Fixed Account - FICA	-	\$58,595,787	0.40%	0.13%	\$234,383	\$75,409
TOTAL		\$58,595,787			\$234,383	\$75,409

Plan Administration Cost	Quarter	Annualized
Plan Generated Revenue (\$2.20 per participant) (est):	\$18,852	\$75,409
Contracted Revenue (\$1.40 per participant) (est):	\$11,997	\$47,988
Net Excess/(Deficit) (est):	\$6,855	\$27,422

An expense ratio of 0.40% was assumed for the Voya Fixed Account.

Section 5

American Funds Europacific Growth R6 (USD)

Morningst
 **Gold**
07-29-2022

Overall
★★★
399 US
Growth

Standard Index
MSCI ACWI Ex
USA NR USD

Category Index
MSCI ACWI Ex
USA Growth NR
USD

Morningstar Cat
US Fund Foreign Large
Growth

Performance 12-31-2022						
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %	
2020	-22.43	22.77	9.66	19.95	25.27	
2021	-0.43	6.97	-2.35	-1.13	2.84	
2022	-12.24	-14.65	-9.33	13.78	-22.72	
Trading Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept	
Load-adj Mthly	-22.72	-0.15	1.54	5.30	7.25	
Std 12-31-2022	-22.72	—	1.54	5.30	7.25	
Total Return	-22.72	-0.15	1.54	5.30	7.25	
+/- Std Index	-6.72	-0.22	0.65	1.50	—	
+/- Cat Index	0.33	0.24	0.04	0.62	—	
% Rank Cat						
No. in Cat	443	399	346	226		

Investment Style	Equity	Stocks %
91	<div><div></div><div></div><div></div><div></div><div></div></div>	91
90	<div><div></div><div></div><div></div><div></div><div></div></div>	90
92	<div><div></div><div></div><div></div><div></div><div></div></div>	92
86	<div><div></div><div></div><div></div><div></div><div></div></div>	86
89	<div><div></div><div></div><div></div><div></div><div></div></div>	89
93	<div><div></div><div></div><div></div><div></div><div></div></div>	93
92	<div><div></div><div></div><div></div><div></div><div></div></div>	92
92	<div><div></div><div></div><div></div><div></div><div></div></div>	92
92	<div><div></div><div></div><div></div><div></div><div></div></div>	92
97	<div><div></div><div></div><div></div><div></div><div></div></div>	97
95	<div><div></div><div></div><div></div><div></div><div></div></div>	95
94	<div><div></div><div></div><div></div><div></div><div></div></div>	94
Growth of \$10,000		
American Funds Europacific	<div></div>	17,388
Growth 86	<div></div>	17,388
Category Average	<div></div>	16,379
Standard Index	<div></div>	14,638
Performance Quartile (within category)		
History	<div></div>	History

	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield 12-31-22	0.77	0.77

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 800-421-4225 or visit www.americanfunds.com.

Fees and Expenses

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

Fund Expenses	
Management Fees %	0.41

12b1 Expense %	NA
Net Expense Ratio %	0.46
Gross Expense Ratio %	0.46
Risk and Return Profile	

Morningstar Rating™	3 Yr 399 funds	5 Yr 346 funds	10 Yr 226 funds
Morningstar Risk	Avg	Avg	Avg
Morningstar Return	Avg	Avg	Avg

	3 Yr	5 Yr	10 Yr
Standard Deviation	21.46	18.75	15.17
Mean	-0.15	1.54	5.30
Sharpe Ratio	0.06	0.10	0.36

MPT Statistics	Standard Index	Best Fit Index
		Morningstar Gb
		xUS Growth TME

Alpha	0.08	NR USD
Beta	1.07	0.65%
R-Squared	94.42	1.11
12-Month Yield		95.32
Potential Cap Gains Exp		1.47%
		31.34%

Operations	
Family:	American Funds
Manager:	Multiple
Tenure:	21.6 Years
Objective:	Foreign Stock
Base Currency:	USD

Asset Allocation %	Net %	Long %	Short %	Share Cng since 09-2022	Share Amount	Holdings : 349 Total Stocks , 8 Total Fixed-Income, 29% Turnover Ratio	Net Assets %
Cash	5.30	5.79	0.49				
US Stocks	2.08	2.08	0.00				
Non-US Stocks	91.93	91.93	0.00	⊕	36 mil	Novo Nordisk A/S Class B	3.69
Bonds	0.30	0.30	0.00	⊕	131 mil	Reliance Industries Ltd	3.08
Other/Not Cstfd	0.39	0.39	0.00	⊕	5 mil	LVMH Moët Hennessy Louis Vuitton SE	2.80
				⊖	6 mil	ASML Holding NV	2.40
Total	100.00	100.49	0.49	⊕	55 mil	Canadian Natural Resources Ltd	2.33

Equity Style		Portfolio Statistics			
Value	Bond Growth	Port	Rel	Re	Re
		Avgt	Index	Cap	Cap
large		16.9	1.41	0.88	0.88
Mid		11.7	1.38	0.86	0.86
Small		2.8	1.76	0.93	0.93
		P/B Ratio	53/35	1.35	1.11
		P/B Ratio TTM			
		Geo Avg Mkt Cap			
		\$ml			

+	260 mil	ALA Group Ltd	2.19
①	23 mil	Airbus SE	2.12
①	85 mil	Daiichi Sankyo Co Ltd	2.07
①	170 mil	Taiwan Semiconductor Manufacturing	1.88
+	35 mil	Sea Ltd ADR	1.40

Fixed-Income Style

Ltd	Mod	Ext

Avg Eff Maturity _____
 Avg Eff Duration _____
 Avg Wld Coupon _____
 Avg Wld Price _____

	Stocks %	Pai Std Index
+	15 mil Nestle SA	1.35
+	123 mil Fortescue Metals Group Ltd	1.31
+	12 mil AstraZeneca PLC	1.26
+	74 mil Kotak Mahindra Bank Ltd	1.25
+	13 mil Safaran SA	1.20
Sector Weightings		

Credit Quality Breakdown —	Bond %
AAA	—
AA	—
A	—
BBB	—

	Cyclical	35.3	0.83
Basic Materials		8.6	1.03
Consumer Cyclical		12.9	1.19
Financial Services		13.1	0.63
Real Estate		0.6	0.25

BBB
BBB
BBB

 Sensitive	41.9	1.18
Communication Services	3.2	0.50

Below B	—
NR	—

Industry	2019	2020	2021
Energy	10.3	1.68	
Industrials	13.8	1.14	
Technology	14.6	1.34	

Regional Exposure	Stocks %	Rel Std Index
Americas	14.2	1.31
Greater Europe	46.2	1.03
Greater Asia	39.7	0.88

Category	Score	Weighted Score
Technology	7.0	1.05
→ Defensive	22.8	1.00
↳ Consumer	7.4	0.85
↳ Healthcare	14.3	1.43
↳ Utilities	1.2	0.36

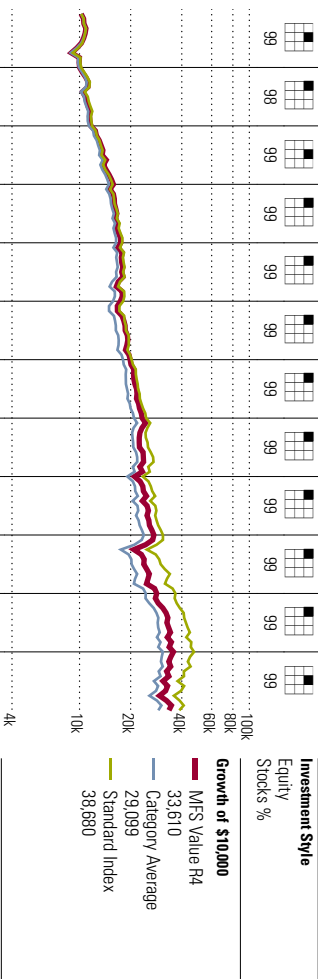
©2023 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analysis and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by you, financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analysis or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc., including, but not limited to, Morningstar Research Services, LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded and accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MFS Value R4 (USD)

Morningstar Analyst Rating™ Overall
 **Gold** ★★★★★
 08-04-2022 1,155 US

Standard Index	Category Index	Morningstar Cat
S&P 500 TR USD	Russell 1000 Value	US Fund Large Value
	TR USD	

Performance 12-31-2022							
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %		
2020	-23.77	14.30	5.93	12.57	3.91		
2021	8.66	5.63	0.65	8.57	25.42		
2022	-3.64	-9.91	-4.58	13.58	-5.90		
Trading Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept		
Load-adj Mthly	-5.90	7.03	7.53	11.18	8.44		
Std 12-31-2022	-5.90	—	7.53	11.18	8.44		
Total Return	-5.90	7.03	7.53	11.18	8.44		
+/- Std Index	12.21	-0.63	-1.89	-1.38	—		
+/- Cat Index	1.63	1.08	0.66	0.89	—		
% Rank Cat	52	51	42	21			
No. in Cat	1229	1155	1099	819			



	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield 12-31-22	1.72 ¹	1.71

1. Contractual waiver, Expires 12-31-2023

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 800-225-2606 or visit <http://www.mfs.com>.

Fees and Expenses	
Sales Charges	NA
Front-End Load %	NA
Deferred Load %	NA
Fund Expenses	
Management Fees %	0.43
12b1 Expense %	NA
Net Expense Ratio %	0.55
Gross Expense Ratio %	0.56
Risk and Return Profile	

Morningstar Rating™	3 Yr	5 Yr	10 Yr
	1,155 funds	1,099 funds	819 funds
Morningstar Risk	3★	3★	4★
Morningstar Return	-Avg	-Avg	-Avg
	Avg	Avg	+Avg
Standard Deviation	3 Yr	5 Yr	10 Yr
	20.07	17.91	14.44
Mean	7.03	7.53	11.18
Sharpe Ratio	0.40	0.42	0.75
MPT Statistics	Standard Index	Best Fit Index	Morningstar US Index
Alpha	0.07	-0.15	Bid Via TR USD
Beta	0.90	0.95	
R-Squared	90.67	98.47	
12-Month Yield		1.86%	
Potential Cap Gains Exp		45.93%	

Operations	
Family:	MFS
Manager:	Multiple
Tenure:	16.7 Years
Objective:	Growth















Portfolio Analysis 12-31-2022									
Asset Allocation %		Net %	Long %	Short %	Share Chg since 11-2022	Share Amount	Holdings : 72 Total Stocks, 0 Total Fixed-Income, 12% Turnover Ratio	Net Asset	
Cash		0.97	0.97	0.00					
US Stocks		91.41	91.41	0.00		17 mil	JPMorgan Chase & Co	3.4	
Non-US Stocks		7.62	7.62	0.00	➔	10 mil	Johnson & Johnson	3.3	
Bonds		0.00	0.00	0.00	➔	5 mil	Cigna Corp	3.1	
Other/Not Csf'd		0.00	0.00	0.00	➔	3 mil	Northrop Grumman Corp	2.2	
Total		100.00	100.00	0.00	➔	29 mil	Pfizer Inc	2.2	

[illegible]

Credit Quality Breakdown —		Bond %
AAA		—
AA		—
A		—
BBB		—
BB		—
B		—
Below B		—
NR		—
Regional Exposure		
Americas	Stocks %	0.9%
Greater Europe		6.4%
Greater Asia		0.0%

Base Currency:	USD
Ticker:	MEUX
ISIN:	US5573H6356
Minimum Initial Purchase:	\$0

①	7 mil	Honeywell International Inc	2
②	5 mil	Aon PLC Class A	2
③	8 mil	Texas Instruments Inc	2
④	10 mil	Progressive Corp	2
⑤	8 mil	Marsh & McLennan Companies Inc	2
⑥	6 mil	Chubb Ltd	2
⑦	36 mil	Comcast Corp Class A	2
⑧	11 mil	ConocoPhillips	2
⑨	12 mil	Duke Energy Corp	2
⑩	2 mil	Thermo Fisher Scientific Inc	1

Sector Weightings		Stocks %	Rel Ind
 Cyclical		34.0	1.1
 Basic Materials		4.3	1.1
 Consumer Cyclical		3.0	0.3
 Financial Services		25.4	1.8
 Real Estate		1.3	0.2
 Sensitive		33.0	0.1
 Communication Services		3.2	0.1
 Energy		4.7	0.3
 Industrials		18.0	1.9
 Technology		7.1	0.7
 Defensive		33.0	1.1
 Consumer Defensive		6.9	0.5
 Healthcare		19.3	1.4
 Utilities		6.8	2.1

Purchase Constraints:	A
Incept:	04-01-2005
Type:	MF
Total Assets:	\$59,252.73 mil

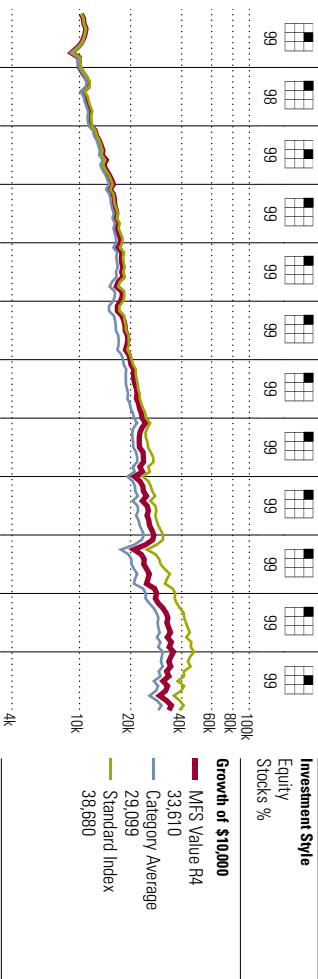
©2023 Morningstar. All rights reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied, retransmitted, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and there are no an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc., including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded and accompanied by a prospectus or equivalent, and disclosure statements. Please see important disclosures at the end of this report.

MFS Value R4 (USD)

Morningstar Analyst Rating™ Overall
★★★★★
Gold
1,155 U.S. Analysts

Standard Index	Category Index	Morningstar Cat
S&P 500 TR USD	Russell 1000 Value	US Fund Large Value
	TR USD	

Performance 12-31-2022							
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %		
2020	-23.77	14.30	5.93	12.57	3.91		
2021	8.66	5.63	0.65	8.57	25.42		
2022	-3.64	-9.91	-4.58	13.58	-5.90		
Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept		
Load-adj Mthly	-5.90	7.03	7.53	11.18	8.44		
Std 12-31-2022	-5.90	—	7.53	11.18	8.44		
Total Return	-5.90	7.03	7.53	11.18	8.44		
+/- Std Index	12.21	-0.63	-1.89	-1.38	—		
+/- Cat Index	1.63	1.08	0.66	0.89	—		
% Rank Cat	52	51	42	21			
No. in Cat	1229	1155	1099	819			



	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield 12-31-22	1.72 ¹	1.71

1. Contractual waiver, Expires 12-31-2023

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 800-225-2606 or visit <http://www.mfs.com>.

Fees and Expenses	
Sales Charges	NA
Front-End Load %	NA
Deferred Load %	NA
Fund Expenses	
Management Fees %	0.43
12b1 Expense %	NA
Net Expense Ratio %	0.55
Gross Expense Ratio %	0.56
Risk and Return Profile	

Morningstar Rating™	3 Yr	5 Yr	10 Yr
	1,155 funds	1,099 funds	819 funds
Morningstar Risk	3★	3★	4★
Morningstar Return	-Avg	-Avg	-Avg
	Avg	Avg	+Avg
Standard Deviation	3 Yr	5 Yr	10 Yr
	20.07	17.91	14.44
Mean	7.03	7.53	11.18
Sharpe Ratio	0.40	0.42	0.75
MPT Statistics	Standard Index	Best Fit Index	Morningstar US Index
Alpha	0.07	-0.15	0.95
Beta	0.90		
R-Squared	90.67	98.47	
12-Month Yield		1.86%	
Potential Cap Gains Exp		45.93%	

Operations	
Family:	MFS
Manager:	Multiple
Tenure:	16.7 Years
Objective:	Growth

Portfolio Analysis 12-31-2022							
Asset Allocation %	Net %	Long %	Short %	Share Chg since 11-2022	Share Amount	Holdings : 72 Total Stocks, 0 Total Fixed-Income, 12% Turnover Ratio	Net Asset
Cash	0.97	0.97	0.00				
US Stocks	91.41	91.41	0.00		17 mil	JPMorgan Chase & Co	3.4
Non-US Stocks	7.62	7.62	0.00		10 mil	Johnson & Johnson	3.3
Bonds	0.00	0.00	0.00		5 mil	Cigna Corp	3.1
Other/Not Clsfd	0.00	0.00	0.00		3 mil	Northrop Grumman Corp	2.2
Total	100.00	100.00	0.00		29 mil	Pfizer Inc	2.2

Equity Style					
Value	Blend	Growth			















Portfolio Statistics						
P/E Ratio TTM	P/B Ratio TTM	P/C Ratio TTM	P/B Ratio TTM	Geo Avg Mkt Cap	Avg Div Yield	Avg Eff Duration
18.0	0.94	1.33	1.21	3.1	0.86	1.33
96/35	0.60	0.80	—	—	—	—

Fixed-Income Style			
Intl	Md	Ext	

Credit Quality Breakdown —		Bond %
AAA		—
AA		—
A		—
BBB		—
BB		—
B		—
Below B		—
NR		—
Regional Exposure	Stocks %	Rel Std Inade
Americas	92.9	0.9%
Greater Europe	7.1	6.4%
Greater Asia	0.0	0.0%

Base Currency:	USD
Ticker:	MEUX
ISIN:	US5573H6356
Minimum Initial Purchase:	\$0

①	7 mil	Honeywell International Inc	2
②	5 mil	Aon PLC Class A	2
③	8 mil	Texas Instruments Inc	2
④	10 mil	Progressive Corp	2
⑤	8 mil	Marsh & McLennan Companies Inc	2
⑥	6 mil	Chubb Ltd	2
⑦	36 mil	Comcast Corp Class A	2
⑧	11 mil	ConocoPhillips	2
⑨	12 mil	Duke Energy Corp	2
⑩	2 mil	Thermo Fisher Scientific Inc	1

Sector Weightings		Stocks %	Rel Ind
 Cyclical		34.0	1.1
 Basic Materials		4.3	1.1
 Consumer Cyclical		3.0	0.3
 Financial Services		25.4	1.8
 Real Estate		1.3	0.2
 Sensitive		33.0	0.1
 Communication Services		3.2	0.1
 Energy		4.7	0.3
 Industrials		18.0	1.9
 Technology		7.1	0.7
 Defensive		33.0	1.1
 Consumer Defensive		6.9	0.5
 Healthcare		19.3	1.4
 Utilities		6.8	2.1

Purchase Constraints:	A
Incept:	04-01-2005
Type:	MF
Total Assets:	\$59,252.73 mil

©2023 Morningstar. All rights reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied, retransmitted, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and there are no an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc., including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded and accompanied by a prospectus or equivalent, and disclosure statements. Please see important disclosures at the end of this report.

Release date 12-31-2022 | Note: Portions of the analysis are based on pre-inception returns. Please read disclosure for more information.

Sterling Capital Total Return Bond R6 (USD)

Morningstar Quantitative Rating™ Neutral^a

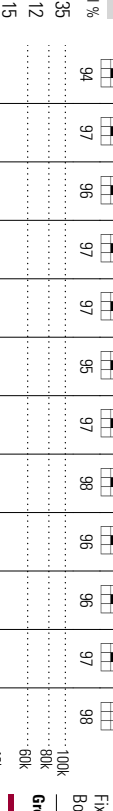
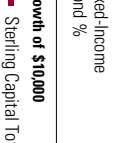
Overall Morningstar Rating™★★★★

405 US Fund Intermediate Core Bond

Bloomberg US Agg Bond TR USD

Bloomberg US Agg Bond TR USD

US Fund Intermediate Core Bond

Performance 12-31-2022																		Investment Style	
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %													Fixed-Income	Bond %
2020	0.73	5.10	1.59	1.67	9.35														
2021	-3.00	2.16	0.04	-0.26	-1.12														
2022	-6.15	-4.69	-4.42	1.57	-13.15														
Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept														
Load-adj Mthly Std 12-31-2022	-13.15	-2.08	—	—	0.71														
Total Return	-13.15	-2.08	0.48	1.58	0.71														
+/- Std Index	-0.14	0.64	0.46	0.53	—														
+/- Cat Index	-0.14	0.64	0.46	0.53	—														
% Rank Cat	40	15	70	5															
No. in Cat	453	405	372	275															
																			
						2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 12-22													
																			
						History													

7-day Yield 01-30-23 3.10¹

30-day SEC Yield 12-31-22 3.81¹

3.78

1. Contractual waiver. Expires 01-31-2023

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 800-228-1872 or visit www.sterlingcapitalfunds.com.

Fees and Expenses

Sales Charges

Front-End Load %

Deferred Load %

Fund Expenses

Management Fees % 0.25

12b01 Expense % 0.00

Net Expense Ratio % 0.35

Gross Expense Ratio % 0.46

Risk and Return Profile

Morningstar Rating™	4★	4★	5★
Morningstar Risk Avg	Avg	Avg	Avg
Morningstar Return	+Avg	High	High

Value	Brand	Growth
Large	Mid	Ext
Mid	Mid	Small

Fixed-Income Style	Mid	Mid	Ext
Avg Eff Maturity	8.75	6.05	3.17
Avg Eff Duration	6.05	3.17	88.41
Avg Wtd Coupon	3.17	88.41	
Avg Wtd Price	88.41		

Credit Quality Breakdown 12-31-2022

AAA	66.46
AA	8.48
A	12.58
BBB	12.40
BB	0.06
B	0.00
Below B	0.02
NR	0.00

Alpha	0.57	0.42
Beta	0.97	0.98
R-Squared	90.07	95.84
12-Month Yield	2.93%	-19.17%
Potential Cap Gains Exp		

Family:	Sterling Capital Funds
Manager:	Multiple
Tenure:	15.0 Years
Objective:	Growth and Income
Base Currency:	USD

©2023 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc., including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

T. Rowe Price Growth Stock I (USD)

Morningstar Analyst Rating™
Silver
03-11-2022

Overall Morningstar Rating™
★ ★
1,131 US Fund Large Growth

Standard Index
S&P 500 TR USD

Category Index
Russell 1000
Growth TR USD

Morningstar Cat
US Fund Large Growth

Performance 12-31-2022					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2020	-14.62	27.75	12.19	12.03	37.09
2021	-14.62	27.75	12.19	12.03	37.09
2022	-15.01	-25.40	-3.29	-2.23	-40.05
Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-40.05	-0.41	5.10	—	8.34
Std 12-31-2022	-40.05	—	5.10	—	8.34
Total Return	-40.05	-0.41	5.10	11.35	8.34
+/- Std Index	-21.94	-8.07	-4.33	-1.21	—
+/- Cat Index	-10.91	-8.20	-5.86	-2.75	—
% Rank Cat	92	90	90	63	—
No. in Cat	1235	1131	1054	804	—

7-day Yield 01-30-23	Subsidized	Unsubsidized
30-day SEC Yield	0.00	—

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.

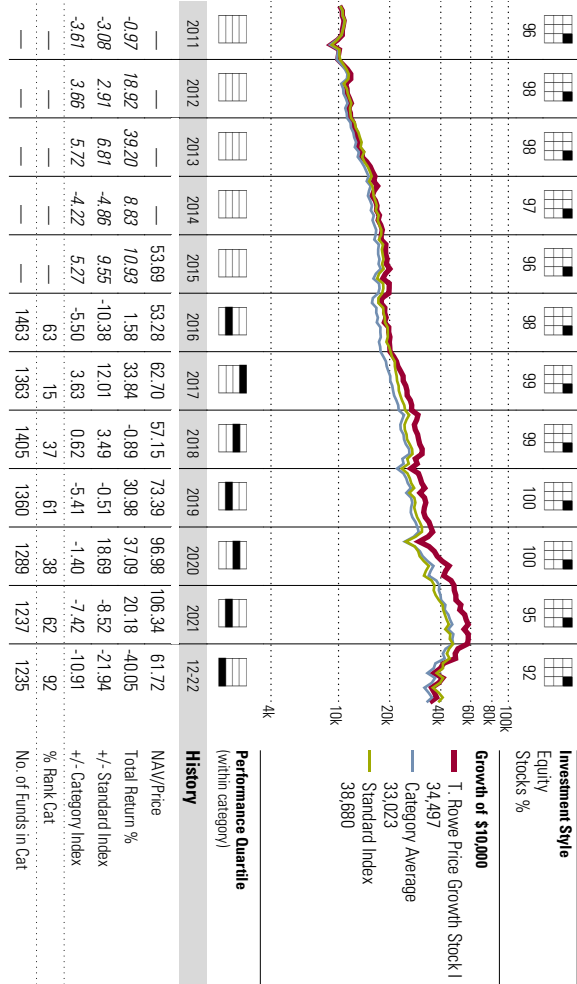
The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate, thus an investor's shares, when sold or redeemed, may be worth more or less than their original cost.

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

Fees and Expenses	
Sales Charges	NA
Front-End Load %	NA
Deferred Load %	NA
Fund Expenses	0.50
Management Fees %	0.50
12bt Expense %	NA
Net Expense Ratio %	0.51
Gross Expense Ratio %	0.51
Risk and Return Profile	0.51

Morningstar Rating™	1,131 funds	5 Yr	10 Yr
2★	2★	2★	2★
Morningstar Risk	+Avg	+Avg	+Avg
Morningstar Return	-Avg	-Avg	-Avg
Standard Deviation	3 Yr	5 Yr	10 Yr
Mean	24.79	21.72	17.35
Sharpe Ratio	-0.41	5.10	11.35
MPT Statistics	Standard Index	Best Fit Index	Morningstar US LM
Alpha	-7.72	1.08	-5.98
Beta	1.08	1.01	97.56
R-Squared	85.61	97.56	—
12-Month Yield	—	—	61.32%
Potential Cap Gains Exp	—	—	61.32%

Family:	T. Rowe Price
Manager:	Joseph Fath
Tenure:	9.0 Years
Objective:	Growth



Performance Quartile (within category)

History

Portfolio Analysis 12-31-2022					
Asset Allocation %	Net %	Long %	Short %	Share Clng since 09-2022	Share Holdings : Amount 23% Turnover Ratio
Cash	8.32	8.32	0.00	—	67 Total Stocks, 0 Total Fixed-Income.
US Stocks	84.25	84.25	0.00	—	22 mil Microsoft Corp
Non-US Stocks	7.43	7.43	0.00	—	29 mil Apple Inc
Bonds	0.00	0.00	0.00	—	28 mil Amazon.com Inc
Other/Not Clsfd	0.00	0.00	0.00	—	1,839 mil T. Rowe Price Gov. Reserve
Total	100.00	100.00	0.00	—	20 mil Alphabet Inc Class A
Equity Style					
Value	Brand	Growth	Port Avg Index	Rel Index	Cat
Large	Med	Ext	P/E Ratio TTM	286	1.50
Med	Med	Small	P/C Ratio TTM	19.0	1.34
Small	Med	Small	P/B Ratio TTM	6.2	1.72
Geo Avg Mkt Cap	245196	1.52	0.93	—	—

Equity Style									
Value		Blend		Growth		Portfolio Statistics			
				P/E Ratio	TTM	P/B Ratio	TTM	Geo Avg Mkt Cap	245196 \$mil
				28.6	1.50	1.20	1.06	1.52	0.93
				19.0	1.34	1.06	0.94	1.52	0.93
				6.2	1.72	0.94	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1.52	0.93
				245196	1.52	0.93	0.93	1	

Regional Exposure					
Americas	Stocks %	Rel Std Index	0.93	—	—
Greater Europe	7.2	6.54	—	—	—
Greater Asia	0.9	30.42	—	—	—
Sector Weightings					
Cyclical	25.3	0.88	—	—	—
Basic Materials	0.5	0.19	—	—	—
Consumer Cyclical	18.2	1.90	—	—	—
Financial Services	6.6	0.48	—	—	—
Real Estate	0.0	0.00	—	—	—
Sensitive	59.5	1.33	—	—	—
Communication Services	10.3	1.41	—	—	—
Energy	0.0	0.00	—	—	—
Industrials	5.3	0.59	—	—	—
Technology	43.9	1.91	—	—	—
Defensive	15.3	0.57	—	—	—
Consumer Defensive	0.7	0.09	—	—	—
Healthcare	14.6	0.92	—	—	—
Utilities	0.0	0.00	—	—	—

Base Currency:	USD
Ticker:	PRUGX
SIN:	US7414794062
Minimum Initial Purchase:	\$500,000
Purchase Constraints:	—
Incept:	08-26-2015
Type:	MIF
Total Assets:	\$44,698.29 mil

©2023 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc., including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.



Vanguard Extended Market Index InstiPlus (USD)

Morningstar Analyst Rating™

★★★★

534 US Fund Mid-Cap Growth

Standard Index

S&P 500 TR USD

Category Index

Russell Mid Cap Growth TR USD

Morningstar Cat

US Fund Mid-Cap Growth

Performance 12-31-2022					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2020	-27.99	31.16	9.87	27.44	32.24
2021	-7.79	7.12	-3.27	0.70	12.48
2022	-9.33	-20.67	-2.73	5.11	-26.45
Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-26.45	3.04	4.90	9.65	8.93
Std 12-31-2022	-26.45	—	4.90	9.65	8.93
Total Return	-26.45	3.04	4.90	9.65	8.93
+/- Std Index	-8.34	-4.62	-4.53	-2.91	—
+/- Cat Index	0.27	-0.81	-2.75	-1.76	—
% Rank Cat	44	69	81	72	—
No. in Cat	586	534	499	389	—

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.

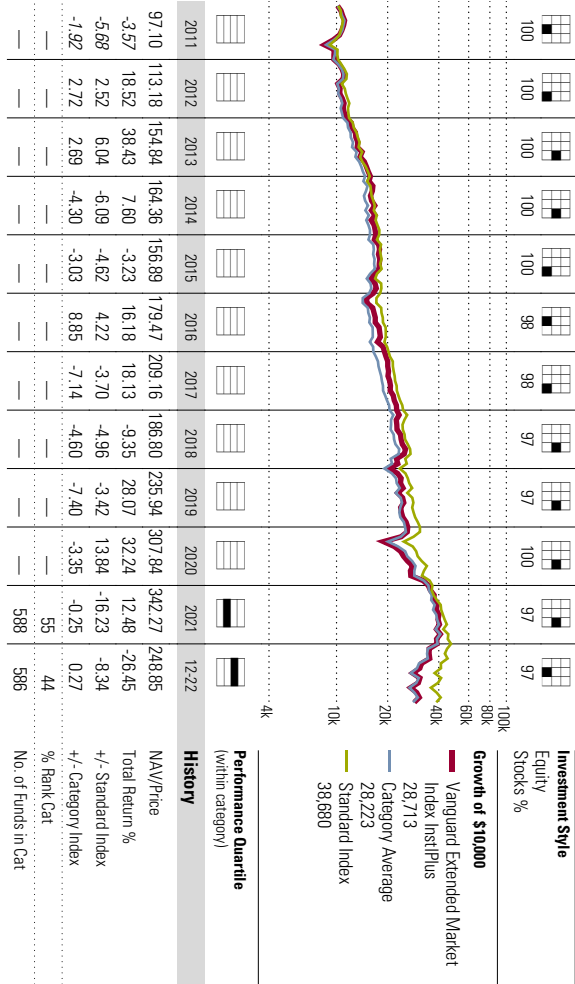
Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 888-809-8102 or visit www.vanguard.com.

Sales Charges	
Front-End Load %	NA
Deferred Load %	NA
Fund Expenses	
Management Fees %	0.04
12b1 Expense %	NA
Net Expense Ratio %	0.04
Gross Expense Ratio %	0.04
Risk and Return Profile	

Morningstar Rating™					
3 Yr	5 Yr	10 Yr	2★	2★	2★
534 funds	499 funds	389 funds			
Morningstar Risk					
3 Yr	5 Yr	10 Yr	2★	2★	2★
534 funds	499 funds	389 funds			
Morningstar Return					
3 Yr	5 Yr	10 Yr	2★	2★	2★
534 funds	499 funds	389 funds			

Standard Deviation	26.94	23.51	18.66
Mean	3.04	4.90	9.65
Sharpe Ratio	0.21	0.26	0.55
MPT Statistics			
Standard Index	Best Fit Index	Morningstar US Sml	Best Grt Ext TR USD
Alpha	-4.56	2.77	2.77
Beta	1.18	1.04	1.04
R-Squared	85.71	97.45	97.45
12-Month Yield	1.17%		
Potential Cap Gains Exp	28.24%		

Operations	
Family:	Vanguard
Manager:	Multiple
Tenure:	25.1 Years
Objective:	Growth



Portfolio Analysis 12-31-2022					
Asset Allocation %					
Cash	2.57	2.57	2.57	0.00	0.00
US Stocks	96.30	96.30	96.30	0.00	0.00
Non-US Stocks	1.13	1.13	1.13	0.00	0.00
Bonds	0.00	0.00	0.00	0.00	0.00
Other/Not Cstfd	0.00	0.00	0.00	0.00	0.00
Total	100.00	100.00	100.00	0.00	0.00

Equity Style					
Value	Brand	Growth	Port	Index	Rel
Large	Mid	Small	Avg	Eff	Cat
P/E Ratio TTM	12.3	0.65	0.48		
P/C Ratio TTM	10.8	0.76	0.56		
P/B Ratio TTM	2.2	0.62	0.55		
Geo Avg Mkt Cap	5365	0.03	0.34		

Fixed-Income Style					
Ltd	Med	Ext	Avg Eff Maturity		
High	Mid	Low	Avg Eff Duration		
			Avg Wtd Coupon		
			Avg Wtd Price		

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

Regional Exposure					
Americas	99.1	1.00			
Greater Europe	0.6	0.58			
Greater Asia	0.3	8.26			

Base Currency:	USD
Ticker:	VEMPX
ISIN:	US9229083715
Minimum Initial Purchase:	\$100 mil

Purchase Constraints:	—
Incept:	01-14-2011
Type:	MIF
Total Assets:	\$14,174.79 mil

©2023 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc., including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

Vanguard Institutional Index
Instl PI (USD)

Morningstar Analyst Rating™

★★★★★

Overall Morningstar Rating™

Standard Index

Category Index

Morningstar Cat

★★★★★

1,223 US Fund Large Blend

SGP 500 TR USD

Russell 1000 TR

US Fund Large Blend

USD

02-22-2022

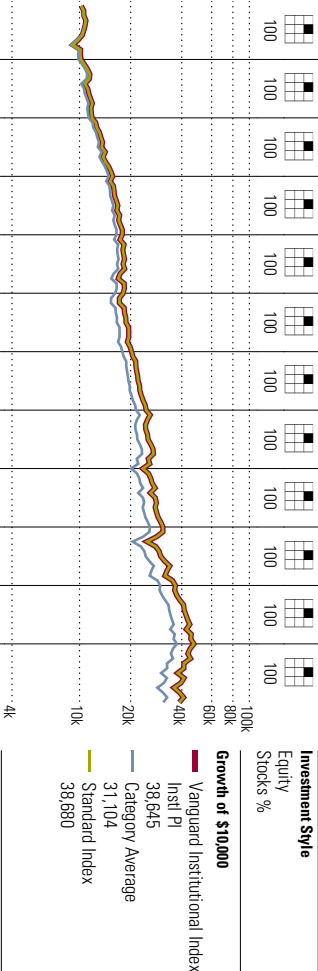
Performance 12-31-2022					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2020	-19.59	20.55	8.93	12.15	18.41
2021	6.18	8.54	0.57	11.02	28.69
2022	-4.61	-16.11	-4.89	7.55	-18.13
Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-18.13	7.65	9.41	12.55	7.82
Std 12-31-2022	-18.13	—	9.41	12.55	7.82
Total Return	-18.13	7.65	9.41	12.55	7.82
+/- Std Index	-0.02	-0.01	-0.01	-0.01	—
+/- Cat Index	1.00	0.30	0.28	0.18	—
% Rank Cat	51	32	23	12	—
No. in Cat	1358	1223	1116	818	—

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 888-809-8102 or visit www.vanguard.com.

Sales Charges	
Front-End Load %	NA
Deferred Load %	NA
Fund Expenses	
Management Fees %	0.02
12b1 Expense %	NA
Net Expense Ratio %	0.02
Gross Expense Ratio %	0.02
Risk and Return Profile	

Morningstar Rating™					
1,223 funds	3 Yr	5 Yr	10 Yr	4★	5★
1,116 funds	Avg	Avg	Avg	4★	5★
818 funds	Avg	Avg	Avg	4★	5★
Morningstar Risk					
Morningstar Return	+Avg	+Avg	+Avg	+Avg	+Avg
Standard Deviation					
3 Yr	21.17	18.69	14.77	10 Yr	12.55
Mean	7.65	9.41	12.55	Avg	0.82
Sharpe Ratio	0.41	0.50	0.82	Bond %	—
MPT Statistics					
Standard Index	Best Fit Index	SGP 500 TR USD	Below B	—	—
Alpha	-0.01	-0.01	NR	—	—
Beta	1.00	1.00	—	—	—
R-Squared	100.00	100.00	—	—	—
12-Month Yield	1.72%	68.18%	—	—	—
Potential Cap Gains Exp	—	—	—	—	—

Operations	
Family:	Vanguard
Manager:	Multiple
Tenure:	22.1 Years
Objective:	Growth and Income



2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	12-22	History
115.05	130.53	169.28	188.68	186.63	203.84	243.48	227.57	290.25	331.48	405.80	321.62	NAV/Price
2.12	16.00	32.37	13.68	1.39	11.95	21.82	-4.41	31.48	18.41	28.69	-18.13	Total Return %
0.01	0.00	-0.02	-0.01	0.01	-0.01	-0.02	-0.02	0.00	0.01	-0.02	-0.02	+/- Standard Index
0.62	-0.42	-0.75	0.44	0.47	-0.10	0.13	0.38	0.06	-2.56	2.23	1.00	+/- Category Index
17	34	41	18	20	26	28	25	23	36	23	51	% Rank Cat
1786	1686	1559	1568	1606	1409	1396	1402	1367	1363	1362	1358	No. of Funds in Cat

Portfolio Analysis 12-31-2022					
Asset Allocation %			Net %		
Cash	0.44	0.44	0.00	0.00	0.00
US Stocks	98.44	98.44	0.00	0.00	0.00
Non-US Stocks	1.12	1.12	0.00	0.00	0.00
Bonds	0.00	0.00	0.00	0.00	0.00
Other/Not Cstfd	0.00	0.00	0.00	0.00	0.00
Total	100.00	100.00	0.00	0.00	0.00
Equity Style			Portfolio Statistics		
Value	Brand	Growth	P/E Ratio TTM	Port Avg Index	Rel Cat
Large	Med	Small	P/C Ratio TTM	190	1.00
			P/B Ratio TTM	14.2	1.00
			Geo Avg Mkt Cap	3.6	1.00
				161357	0.87
				1.00	0.76

Fixed-Income Style			Credit Quality Breakdown —		
Lat	Med	Ext	Avg Eff Maturity	Bond %	—
			Avg Eff Duration	—	—
			Avg Wtd Coupon	—	—
			Avg Wtd Price	—	—
Credit Quality Breakdown —			Sector Weightings		
AAA	AA	AA	Cyclical	28.7	1.00
AA	A	—	Basic Materials	2.5	1.00
BBB	BB	—	Consumer Cyclical	9.6	1.00
BB	B	—	Financial Services	13.8	1.00
		—	Real Estate	2.8	1.00
		—	Sensitive	44.6	1.00
		—	Communication Services	7.3	1.00
		—	Energy	5.2	1.00
		—	Industrials	9.1	1.00
		—	Technology	23.0	1.00
		—	Defensive	26.7	1.00
		—	Consumer Defensive	7.6	1.00
		—	Healthcare	15.9	1.00
		—	Utilities	3.2	1.00

©2023 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc., including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.





Vanguard Institutional Total International Stock Market Index Trust

International stock fund

Fund facts

Risk level					Total net assets		Inception date	Fund number
Low ← → High					\$20.173 MM		06/24/16	2069
1	2	3	4	5				

Investment objective

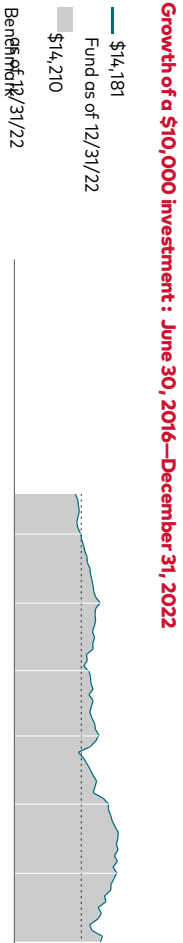
Vanguard Institutional Total International Stock Market Index Trust seeks to track the performance of a benchmark index that measures the investment return of stocks issued by companies located in developed and emerging markets, excluding the United States.

Investment strategy

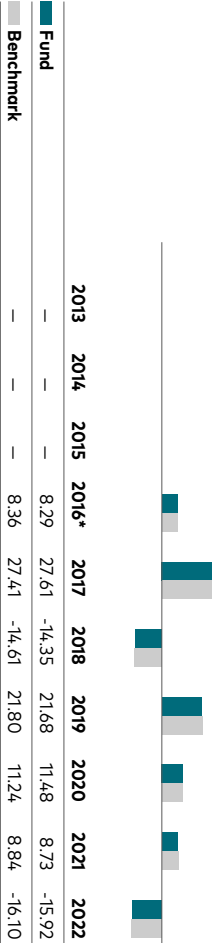
The trust portfolio employs an indexing investment approach designed to track the performance of the FTSE Global All Cap ex US Index, a free-float-adjusted market-capitalization-weighted index designed to measure equity market performance of companies located in developed and emerging markets, excluding the United States. The index includes more than 5,300 stocks of companies located in 46 countries. The trust invests substantially all of its assets in the common stocks included in its target index.

Benchmark

FTSE Global All Cap ex US Index



Annual returns

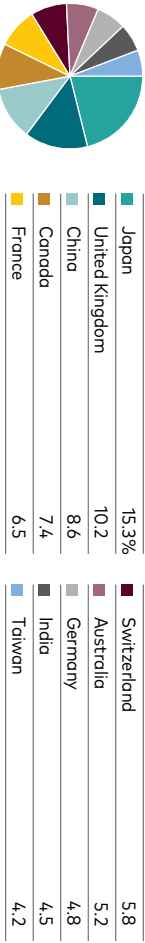


Total returns

Periods ended December 31, 2022						
Fund	Quarter	Year to date	One year	Three years	Five years	Since inception
	14.72%	-15.92%	-15.92%	0.63%	1.21%	6.06%
Benchmark	14.14%	-16.10%	-16.10%	0.52%	1.10%	-

The performance data shown represent past performance, which is not a guarantee of future results. Investment returns and principal value will fluctuate, so investors' shares, when sold, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data cited. For performance data current to the most recent month-end, visit our website at vanguard.com/performance. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index. Figures for periods of less than one year are cumulative returns. All other figures represent average annual returns. Performance figures include the reinvestment of all dividends and any capital gains distributions. All returns are net of expenses.

Market allocation—stocks



* Partial return since fund started, June 24, 2016.
FTSE Global All Cap ex US Index: Consists of large-, mid-, and small-cap stocks globally, excluding the U.S. The index is derived from the FTSE Global Equity Index Series (GEIS), which covers approximately 98% of the world's investable market capitalization. Index returns are adjusted for withholding taxes.

Vanguard Institutional Total International Stock Market Index Trust

International stock fund

Ten largest holdings*

1	Taiwan Semiconductor Manufacturing Co. Ltd.
2	Nestle SA
3	Tencent Holdings Ltd.
4	Samsung Electronics Co. Ltd.
5	Roche Holding AG
6	ASML Holding NV
7	Novo Nordisk A/S
8	Shell plc
9	AstraZeneca plc
10	Novartis AG
Top 10 as % of total net assets	
9.2%	

* The holdings listed exclude any temporary cash investments and equity index products.

Sector Diversification



Financials	19.8%	Consumer Staples	7.7
Industrials	14.5	Energy	6.0
Consumer Discretionary	13.0	Utilities	3.5
Technology	11.7	Real Estate	3.4
Health Care	9.4	Telecommunications	3.1
Basic Materials	7.8	Other	0.1

Sector categories are based on the Industry Classification Benchmark system ("ICB"), except for the "Other" category (if applicable), which includes securities that have not been provided an ICB classification as of the effective reporting period.

Connect with Vanguard • vanguard.com
Plain talk about risk

An investment in the trust portfolio could lose money over short or even long periods. You should expect the trust portfolio's share price and total return to fluctuate within a wide range, like the fluctuations of the overall stock market. The trust portfolio's performance could be hurt by:

Stock market risk: The chance that stock prices overall will decline. Stock markets tend to move in cycles, with periods of rising stock prices and periods of falling stock prices. The fund's investments in foreign stocks can be riskier than U.S. stock investments. Foreign stocks tend to be more volatile and less liquid than U.S. stocks. The prices of foreign stocks and the prices of U.S. stocks may move in opposite directions. In addition, the fund's target index may, at times, become focused in stocks of a particular market sector, which would subject the fund to proportionately higher exposure to the risks of that sector.

Country/regional risk: The chance that world events—such as political upheaval, financial troubles, or natural disasters—will adversely affect the value of securities issued by companies in foreign countries or regions. Because the fund may invest a large portion of its assets in securities of companies located in any one country or region, its performance may be hurt disproportionately by the poor performance of its investments in that area. Country/regional risk is especially high in emerging markets.

Currency risk: The chance that the value of a foreign investment, measured in U.S. dollars, will decrease because of unfavorable changes in currency exchange rates.

Investment style risk: The chance that returns from small- and mid-capitalization stocks, to the extent that the fund invests in them, will trail returns from the overall stock market. Historically, these stocks have been more volatile in price than the large-cap stocks that dominate the overall market, and they often perform quite differently.

Emerging markets risk: The chance the stocks of companies located in emerging markets will be substantially more volatile, and substantially less liquid, than the stocks of companies located in more developed foreign markets.

Note on frequent trading restrictions

Frequent trading policies may apply to those funds offered as investment options within your plan. Please log on to vanguard.com for your employer plans or contact Participant Services at 800-523-1188 for additional information.

London Stock Exchange Group companies include FTSE International Limited ("FTSE"), Frank Russell Company ("Russell"), MTS Next Limited ("MTS"), and FTSE TMX Global Debt Capital Markets Inc. ("FTSE TMX"). All rights reserved. "FTSE", "Russell", "MTS", "FTSE TMX" and "FTSE Russell" and other service marks and trademarks related to the FTSE or Russell indexes are trademarks of the London Stock Exchange Group companies and are used by FTSE, MTS, FTSE TMX and Russell under licence. All information is provided for information purposes only. No responsibility or liability can be accepted by the London Stock Exchange Group companies nor its licensors for any errors or for any loss from use of this publication. Neither the London Stock Exchange Group companies nor any of its licensors make any claim, prediction, warranty or representation whatsoever, expressly or impliedly, either as to the results to be obtained from the use of the FTSE indexes or the fitness or suitability of the indexes for any particular purpose to which they might be put.

This investment is not a mutual fund. It is a collective trust available only to tax-qualified plans and their eligible participants.

For more information about Vanguard funds or to obtain a prospectus, see below for which situation is right for you.

If you receive your retirement plan statement from Vanguard or log on to Vanguard's website to view your plan, visit vanguard.com or call 800-523-1188. If you receive your retirement plan statement from a service provider other than Vanguard or log on to a recordkeeper's website that is not Vanguard to view your plan, please call 855-402-2646.

Visit vanguard.com to obtain a prospectus or, if available, a summary prospectus. Investment objectives, risks, charges, expenses, and other important information about a fund are contained in the prospectus; read and consider it carefully before investing.

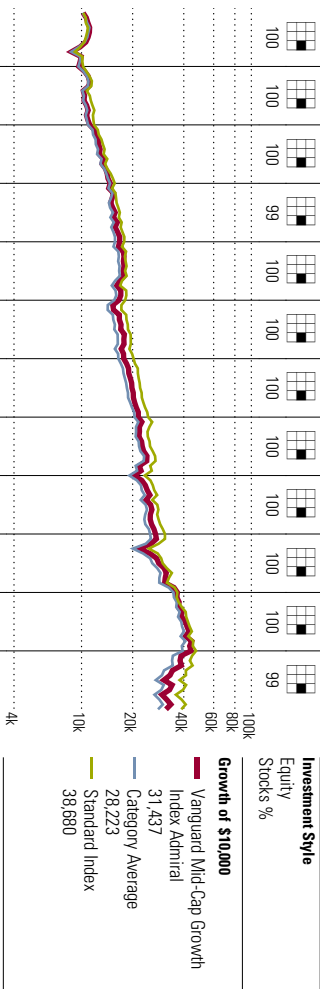
Vanguard Mid-Cap Growth Index Admiral (USD)














★★★
Overall Morningstar Rating™

Category Index
Russell Mid Cap
Growth TR USD

Morningstar Cat
US Fund Mid-Cap
Growth

Performance 12-31-2022									
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %				
2020	-20.05	30.58	9.26	17.90	34.48				
2021	1.25	10.25	0.16	7.76	20.48				
2022	-12.32	-21.19	-2.58	5.69	-28.84				
Trading Returns	1 Yr	3 Yr	5 Yr	10 Yr	Inception				
Load-adj Mthly	-28.84	4.86	7.81	10.90	11.37				
Std 12-31-2022	-28.84	—	7.81	10.90	11.37				
Total Return	-28.84	4.86	7.81	10.90	11.37				
+/- Std Index	-10.73	-2.81	-1.61	-1.66	—				
+/- Cat Index	-2.12	1.00	0.17	-0.50	—				
% Rank Cat	64	42	40	45					
No. in Cat	566	534	499	389					



Performance Quartile (within category)													NAV/Price
History													Total Return %
													+/- Standard Index
													+/- Category Index
													% Rank Cat
													No. of Funds in Cat
													
2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	12-22		
25.66	29.55	38.83	43.72	42.94	45.46	54.96	51.48	68.34	91.26	109.55	77.37		
-3.68	15.96	32.22	13.48	-0.98	6.75	21.83	-5.60	33.86	34.48	20.48	-28.84		
-5.79	-0.05	-0.17	-0.21	-2.36	-5.21	0.00	-1.22	2.37	16.08	-8.23	-10.73		
-2.03	0.15	-3.52	1.58	-0.78	-0.58	-3.44	-0.85	-1.61	-1.11	7.75	-2.12		
—	30	68	5	51	40	65	46	42	44	19	64		
737	703	749	733	644	617	605	618	604	588	586			

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 %	0.06
12b1 Expense %	NA

Net Expense Ratio %	0.07
Gross Expense Ratio %	0.07

Risk and Return Profile

	3 Yr	5 Yr	10 Yr
Morningstar Rating™	524 funds	499 funds	369 funds
Morningstar Risk	3★ Avg	3★ Avg	3★ Avg
Morningstar Return	Avg	Avg	Avg

Standard Deviation

Mean	4.86	7.81	10.90
Sharpe Ratio	0.28	0.39	0.64

MP T Statistics

	Standard Index	Best Fit Index
M ² Statistics		Morningstar US Mid Brd Gr Tr USD
Alpha	-2.73	-1.08
Beta	1.11	1.04
R-Squared	88.29	99.36

12-Month Yield	0.78%
Potential Cap Gains Exp	33.06%

Operations

Family:

Manager:

Length:	9.9 Years
Objective:	Growth

Base Currency:

Ticker:

ISIN:

Minimum Initial Purchase:

USD

VMGIMX

US9219311283

\$3,000

Purchase Constraints:

Ince

Type:

Total Assets: \$9,926.31 mil

1

09-27-2011

MIF

\$9,926.31 mil

MCBRINGSTAR®

Vanguard Mid-Cap Value Index Admiral (USD)

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

Category IndexMorningstar Cat

Russell Mid CapUS Fund Mid-Cap

Value TR USDValue

Performance 12-31-2022					
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2020	-31.36	18.65	6.58	18.14	2.54
2021	13.70	4.84	-0.19	8.21	28.76
2022	0.04	-13.05	-5.55	12.11	-7.90
Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-7.90	6.74	6.39	10.98	12.03
Std 12-31-2022	-7.90	—	6.39	10.98	12.03
Total Return	-7.90	6.74	6.39	10.98	12.03
+/- Std Index	10.21	-0.92	-3.03	-1.59	—
+/- Cat Index	4.13	0.92	0.67	0.87	—
% Rank Cat	47	50	40	13	—
No. in Cat	405	393	372	272	—

7-day Yield —
30-day SEC Yield 01-30-23 2.32 2.32

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

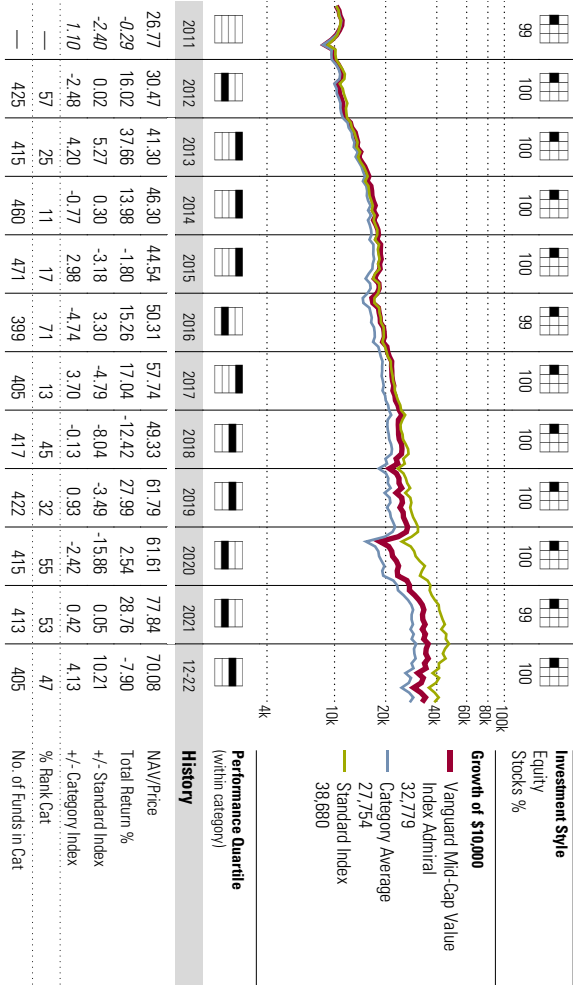
Sales Charges	
Front-End Load %	NA
Deferred Load %	NA

Fund Expenses	
Management Fees %	0.06
12b1 Expense %	NA
Net Expense Ratio %	0.07
Gross Expense Ratio %	0.07
Risk and Return Profile	

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

Standard Deviation	3 Yr 24.01	5 Yr 21.04	10 Yr 16.53
Mean	6.74	6.39	10.98
Sharpe Ratio	0.36	0.34	0.67
MPT Statistics	Standard Index	Best Fit Index	Morningstar US Mid
Alpha	-0.53	0.31	-0.31
Beta	1.05	0.97	
R-Squared	85.31	99.46	
12-Month Yield		2.27%	
Potential Cap Gains Exp		21.96%	

Operations	
Family:	Vanguard
Manager:	Multiple
Tenure:	16.4 Years
Objective:	Growth



Portfolio Analysis 12-31-2022					
Asset Allocation %	Net %	Long %	Short %	Share Clng since 11-2022	Share Holdings: Amount 17% Turnover Ratio
Cash	0.41	0.41	0.00		
US Stocks	97.96	97.96	0.00		
Non-US Stocks	1.63	1.63	0.00		
Bonds	0.00	0.00	0.00		
Other/Not Clsfd	0.00	0.00	0.00		
Total	100.00	100.00	0.00		

Equity Style	Portfolio Statistics
Value	P/E Ratio TTM 13.4
Brand	P/C Ratio TTM 10.3
Growth	P/B Ratio TTM 2.1
Large	Geo Avg Mkt Cap 21774
Mid	
Small	

Fixed-Income Style	Portfolio Statistics
Ltd	Avg Eff Maturity
Med	Avg Eff Duration
Ext	Avg Wtd Coupon
	Avg Wtd Price

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

Regional Exposure	Stocks %	Rel Std Index
Americas	98.4	0.99
Greater Europe	1.3	1.19
Greater Asia	0.3	10.68

Base Currency:	USD
Ticker:	VMMVAX
ISIN:	US9219376947
Minimum Initial Purchase:	\$3,000

Purchase Constraints:	—
Incept:	09-27-2011
Type:	MIF
Total Assets:	\$16,860.38 mil

©2023 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc., including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.





Vanguard Target Retirement 2020 Trust II

Balanced fund (stocks and bonds)

Fund facts

Risk level					Total net assets	Expense ratio as of 03/31/21	Inception date	Fund number
1	2	3	4	5				
					\$6,484 MM	0.075%	02/29/08	1474

Investment objective

Vanguard Target Retirement 2020 Trust II seeks to provide capital appreciation and current income consistent with its current asset allocation.

Investment strategy

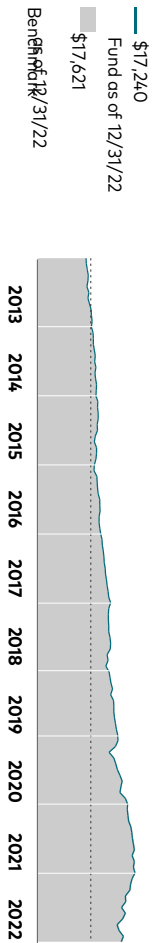
The trust invests in other Vanguard mutual funds and trusts according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2020 (the target year). The trust's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase. Within seven years after 2020, the trust's asset allocation should resemble that of the Target Retirement Income Trust II. The underlying holdings are: Vanguard Total Stock Market Index Fund, Vanguard Total Bond Market II Index Fund, Vanguard Institutional Total International Stock Market Index Trust II, Vanguard Total International Bond II Index Fund, and Vanguard Short-Term Inflation-Protected Securities Fund.

The trust's indirect bond holdings are a diversified mix of short-, intermediate-, and long-term U.S. government, U.S. agency, and investment-grade U.S. corporate bonds; inflation-protected public obligations issued by the U.S. Treasury; mortgage-backed and asset-backed securities; and government, agency, corporate, and securitized investment-grade foreign bonds issued in currencies other than the U.S. dollar (but hedged by Vanguard to minimize foreign currency exposure). The trust's indirect stock holdings are a diversified mix of U.S. and foreign large-, mid-, and small-capitalization stocks.

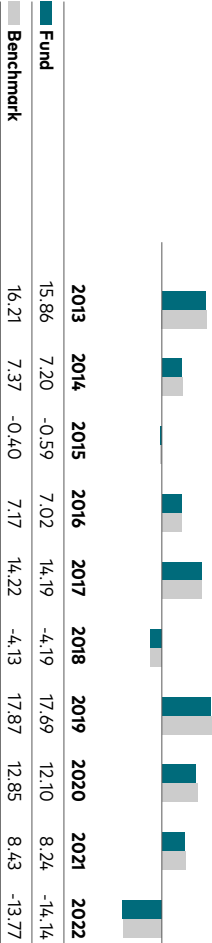
Benchmark

Target Retirement 2020 Composite Ix

Growth of a \$10,000 investment : January 31, 2013—December 31, 2022



Annual returns



Total returns

Periods ended December 31, 2022

	Quarter	Year to date	One year	Three years	Five years	Ten years
Fund	5.00%	-14.14%	-14.14%	1.37%	3.27%	5.89%
Benchmark	5.12%	-13.77%	-13.77%	1.80%	3.58%	6.13%

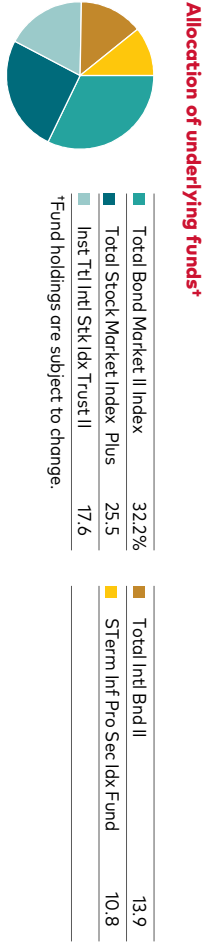
The performance data shown represent past performance, which is not a guarantee of future results. Investment returns and principal value will fluctuate, so investors' shares, when sold, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data cited. For performance data current to the most recent month-end, visit our website at vanguard.com/performance. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Figures for periods of less than one year are cumulative returns. All other figures represent average annual returns. Performance figures include the reinvestment of all dividends and any capital gains distributions. All returns are net of expenses.

Target Retirement 2020 Composite Ix: Derived by applying the fund's target asset allocation to the results of the following benchmarks: for international stocks of developed markets, the MSCI EAFE Index through December 15, 2010, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex US Index thereafter; for emerging-market stocks, the Select Emerging Markets Index through August 23, 2006, the MSCI Emerging Markets Index through December 15, 2010, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex US Index thereafter; for U.S. bonds, the Bloomberg U.S. Aggregate Bond Index through December 31, 2009, and the Bloomberg U.S. Aggregate Float Adjusted Index thereafter, as well as the Bloomberg U.S. Treasury Inflation-Protected Securities (TIPS) 0-5 Year Index; for international bonds, the Bloomberg Global Aggregate ex-USD Float Adjusted RIC Capped Index Hedged beginning June 3, 2013; and for U.S. stocks, the MSCI US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Vanguard Target Retirement 2020 Trust II

Balanced fund (stocks and bonds)



Connect with Vanguard • vanguard.com

Plain talk about risk

The trust is subject to several stock and bond market risks, any of which could cause an investor to lose money. However, based on the trust's current allocation between stocks and the less-volatile asset class of bonds, the trust's overall level of risk should be higher than those trusts that invest mostly in bonds, but lower than those investing mostly in stocks. As the trust's allocation between underlying funds gradually changes, the trust's overall level of risk also will decline. In addition to the risks inherent in the asset classes of the underlying funds, the trust also is subject to asset allocation risk, which is the chance that the selection of underlying funds and the allocation of fund assets will cause the trust to underperform other trusts with a similar investment objective. Investments in Target Retirement Trusts are subject to the risks of their underlying funds. The year in the trust name refers to the approximate year 2020 when an investor in the trust would retire and leave the workforce. The trust will gradually shift its emphasis from more aggressive investments to more conservative ones based on its target date. An investment in the Target Retirement Trust is not guaranteed at any time, including on or after the target date.

Note on frequent trading restrictions

Frequent trading policies may apply to those funds offered as investment options within your plan. Please log on to vanguard.com for your employer plans or contact Participant Services at 800-523-1188 for additional information.

This investment is not a mutual fund. It is a collective trust available only to tax-qualified plans and their eligible participants.

This collective trust is managed by Vanguard Fiduciary Trust Company, a wholly owned subsidiary of The Vanguard Group, Inc., and is not a mutual fund. Investment objectives, risks, charges, expenses, and other important information should be considered carefully before investing.

For more information about Vanguard investments, see below for which situation is right for you.

If you receive your retirement plan statement from Vanguard or log on to Vanguard's website to view your plan, visit vanguard.com or call 800-523-1188.

If you receive your retirement plan statement from a service provider other than Vanguard or log on to a recordkeeper's website that is not Vanguard to view your plan, please call 855-402-2646.



Vanguard Target Retirement 2025 Trust II

Balanced fund (stocks and bonds)

Fund facts

Risk level					Total net assets		Expense ratio as of 03/31/21	Inception date	Fund number
Low ← → High					1				
					2				
					3		\$12,900 MM	0.075%	02/29/08
					4				
					5				14,75

Investment objective

Vanguard Target Retirement 2025 Trust II seeks to provide capital appreciation and current income consistent with its current asset allocation.

Investment strategy

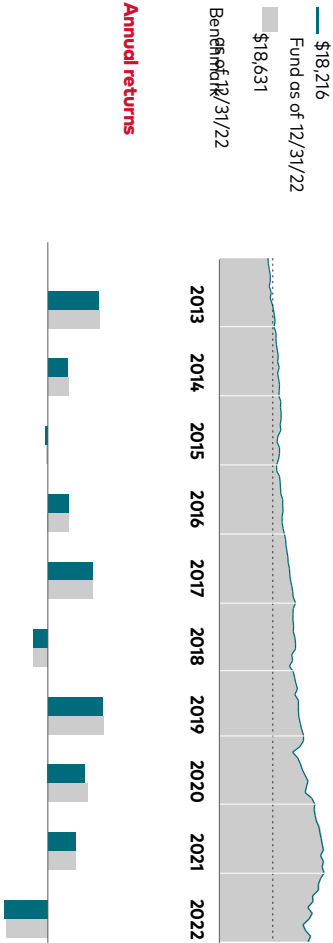
The trust invests in other Vanguard mutual funds and trusts according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2025 (the target year). The trust's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase. Within seven years after 2025, the trust's asset allocation should resemble that of the Target Retirement Income Trust II. The underlying holdings are: Vanguard Total Stock Market Index Fund, Vanguard Total Bond Market II Index Fund, Vanguard Institutional Total International Stock Market Index Trust II, Vanguard Total International Bond II Index Fund, and Vanguard Short-Term Inflation-Protected Securities Fund.

The trust's indirect bond holdings are a diversified mix of short-, intermediate-, and long-term U.S. government, U.S. agency, and investment-grade U.S. corporate bonds; inflation-protected public obligations issued by the U.S. Treasury; mortgage-backed and asset-backed securities; and government, agency, corporate, and securitized investment-grade foreign bonds issued in currencies other than the U.S. dollar (but hedged by Vanguard to minimize foreign currency exposure). The trust's indirect stock holdings are a diversified mix of U.S. and foreign large-, mid-, and small-capitalization stocks.

Benchmark

Target Retirement 2025 Composite Ix

Growth of a \$10,000 investment : January 31, 2013—December 31, 2022



Annual returns

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Fund	18.23	7.22	-0.72	7.51	16.04	-5.07	19.75	13.39	9.90	-15.44
Benchmark	18.52	7.45	-0.58	7.67	16.08	-5.01	19.92	14.19	10.09	-15.02

Total returns

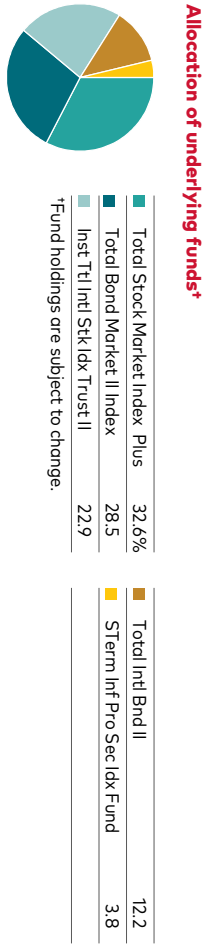
	Quarter	Year to date	One year	Three years	Five years	Ten years
Fund	6.05%	-15.44%	-15.44%	1.76%	3.68%	6.52%
Benchmark	6.16%	-15.02%	-15.02%	2.23%	4.01%	6.77%

The performance data shown represent past performance, which is not a guarantee of future results. Investment returns and principal value will fluctuate, so investors' shares, when sold, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data cited. For performance data current to the most recent month-end, visit our website at vanguard.com/performance. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index. Figures for periods of less than one year are cumulative returns. All other figures represent average annual returns. Performance figures include the reinvestment of all dividends and any capital gains distributions. All returns are net of expenses.

Target Retirement 2025 Composite Ix: Derived by applying the fund's target asset allocation to the results of the following benchmarks: for international stocks of developed markets, the MSCI EAFE Index through December 15, 2010, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex US Index thereafter; for emerging-market stocks, the Select Emerging Markets Index through August 23, 2006, the MSCI Emerging Markets Index through December 15, 2010, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex US Index thereafter; for U.S. bonds, the Bloomberg U.S. Aggregate Bond Index through December 31, 2009, and the Bloomberg U.S. Aggregate Float Adjusted Index thereafter, as well as the Bloomberg U.S. Treasury Inflation-Protected Securities (TIPS) 0-5 Year Index; for international bonds, the Bloomberg Global Aggregate ex-USD Float Adjusted RIC Capped Index Hedged beginning June 3, 2013; and for U.S. stocks, the Dow Jones U.S. Total Stock Market Index (formerly known as the Dow Jones Wilshire 5000 Index) through April 22, 2005, the MSCI US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Vanguard Target Retirement 2025 Trust II

Balanced fund (stocks and bonds)



Connect with Vanguard • vanguard.com

Plain talk about risk

The trust is subject to several stock and bond market risks, any of which could cause an investor to lose money. However, based on the trust's current allocation between stocks and the less-volatile asset class of bonds, the trust's overall level of risk should be higher than those trusts that invest mostly in bonds, but lower than those investing mostly in stocks. As the trust's allocation between underlying funds gradually changes, the trust's overall level of risk also will decline. In addition to the risks inherent in the asset classes of the underlying funds, the trust also is subject to asset allocation risk, which is the chance that the selection of underlying funds and the allocation of fund assets will cause the trust to underperform other trusts with a similar investment objective. Investments in Target Retirement Trusts are subject to the risks of their underlying funds. The year in the trust name refers to the approximate year 2025 when an investor in the trust would retire and leave the workforce. The trust will gradually shift its emphasis from more aggressive investments to more conservative ones based on its target date. An investment in the Target Retirement Trust is not guaranteed at any time, including on or after the target date.

Note on frequent trading restrictions

Frequent trading policies may apply to those funds offered as investment options within your plan. Please log on to vanguard.com for your employer plans or contact Participant Services at 800-523-1188 for additional information.

This investment is not a mutual fund. It is a collective trust available only to tax-qualified plans and their eligible participants.

This collective trust is managed by Vanguard Fiduciary Trust Company, a wholly owned subsidiary of The Vanguard Group, Inc., and is not a mutual fund. Investment objectives, risks, charges, expenses, and other important information should be considered carefully before investing.

For more information about Vanguard investments, see below for which situation is right for you.

If you receive your retirement plan statement from Vanguard or log on to Vanguard's website to view your plan, visit vanguard.com or call 800-523-1188.

If you receive your retirement plan statement from a service provider other than Vanguard or log on to a recordkeeper's website that is not Vanguard to view your plan, please call 855-402-2646.



Vanguard Target Retirement 2030 Trust II

Balanced fund (stocks and bonds)

Fund facts

Risk level					Total net assets	Expense ratio as of 03/31/21	Inception date	Fund number
Low ← → High					\$15.478 MM	0.075%	02/29/08	1476
1	2	3	4	5				

Investment objective

Vanguard Target Retirement 2030 Trust II seeks to provide capital appreciation and current income consistent with its current asset allocation.

Investment strategy

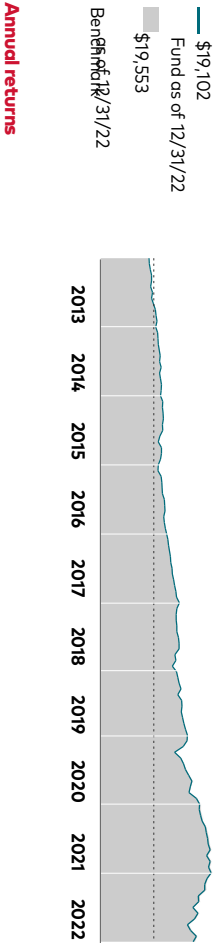
The trust invests in other Vanguard mutual funds and trusts according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2030 (the target year). The trust's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase. Within seven years after 2030, the trust's asset allocation should resemble that of the Target Retirement Income Trust II. The underlying holdings are: Vanguard Total Stock Market Index Fund, Vanguard Total Bond Market II Index Fund, Vanguard Institutional Total International Stock Market Index Trust II, Vanguard Total International Bond II Index Fund, and Vanguard Short-Term Inflation-Protected Securities Fund.

The trust's indirect bond holdings are a diversified mix of short-, intermediate-, and long-term U.S. government, U.S. agency, and investment-grade U.S. corporate bonds; inflation-protected public obligations issued by the U.S. Treasury; mortgage-backed and asset-backed securities; and government, agency, corporate, and securitized investment-grade foreign bonds issued in currencies other than the U.S. dollar (but hedged by Vanguard to minimize foreign currency exposure). The trust's indirect stock holdings are a diversified mix of U.S. and foreign large-, mid-, and small-capitalization stocks.

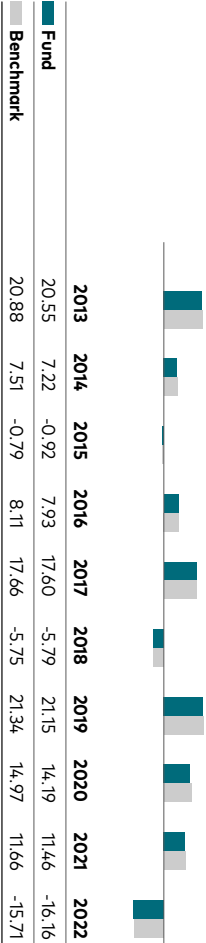
Benchmark

Target Retirement 2030 Composite Ix

Growth of a \$10,000 investment : January 31, 2013—December 31, 2022



Annual returns



Total returns

Periods ended December 31, 2022

	Quarter	Year to date	One year	Three years	Five years	Ten years
Fund	6.79%	-16.16%	-16.16%	2.19%	4.02%	7.07%
Benchmark	6.92%	-15.71%	-15.71%	2.67%	4.36%	7.34%

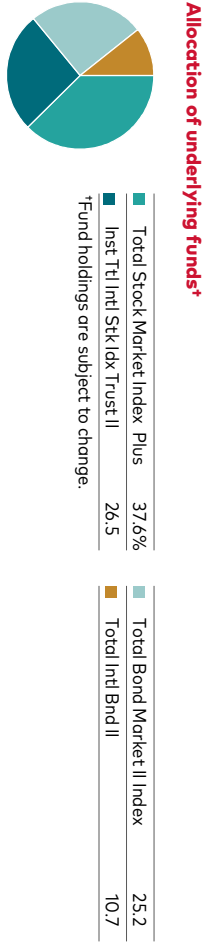
The performance data shown represent past performance, which is not a guarantee of future results. Investment returns and principal value will fluctuate, so investors' shares, when sold, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data cited. For performance data current to the most recent month-end, visit our website at vanguard.com/performance. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Figures for periods of less than one year are cumulative returns. All other figures represent average annual returns. Performance figures include the reinvestment of all dividends and any capital gains distributions. All returns are net of expenses.

Target Retirement 2030 Composite Ix: Derived by applying the fund's target asset allocation to the results of the following benchmarks: for international stocks of developed markets, the MSCI EAFE Index through December 15, 2010, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex US Index thereafter; for emerging-market stocks, the Select Emerging Markets Index through August 23, 2006, the MSCI Emerging Markets Index through December 15, 2010, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex US Index thereafter; for U.S. bonds, the Bloomberg U.S. Aggregate Bond Index through December 31, 2009, and the Bloomberg U.S. Aggregate Float Adjusted Index thereafter; for international bonds, the Bloomberg Global Aggregate ex-USD Float Adjusted RIC Capped Index Hedged beginning June 3, 2013; and for U.S. stocks, the MSCI US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Vanguard Target Retirement 2030 Trust II

Balanced fund (stocks and bonds)



Connect with Vanguard • vanguard.com

Plain talk about risk

The fund is subject to several stock and bond market risks, any of which could cause an investor to lose money. However, based on the fund's current allocation between stocks and the less-volatile asset class of bonds, the fund's overall level of risk should be higher than those funds that invest mostly in bonds, but lower than those investing mostly in stocks. As the fund's allocation between underlying funds gradually changes, the fund's overall level of risk also will decline. In addition to the risks inherent in the asset classes of the underlying funds, the fund also is subject to asset allocation risk, which is the chance that the selection of underlying funds and the allocation of fund assets will cause the fund to underperform other funds with a similar investment objective. Investments in Target Retirement Trusts are subject to the risks of their underlying funds. The year in the trust name refers to the approximate year 2030 when an investor in the trust would retire and leave the workforce. The trust will gradually shift its emphasis from more aggressive investments to more conservative ones based on its target date. An investment in the Target Retirement Trust is not guaranteed at any time, including on or after the target date.

Note on frequent trading restrictions

Frequent trading policies may apply to those funds offered as investment options within your plan. Please log on to vanguard.com for your employer plans or contact Participant Services at 800-523-1188 for additional information.

This investment is not a mutual fund. It is a collective trust available only to tax-qualified plans and their eligible participants.

This collective trust is managed by Vanguard Fiduciary Trust Company, a wholly owned subsidiary of The Vanguard Group, Inc., and is not a mutual fund. Investment objectives, risks, charges, expenses, and other important information should be considered carefully before investing.

For more information about Vanguard investments, see below for which situation is right for you.

If you receive your retirement plan statement from Vanguard or log on to Vanguard's website to view your plan, visit vanguard.com or call 800-523-1188.

If you receive your retirement plan statement from a service provider other than Vanguard or log on to a recordkeeper's website that is not Vanguard to view your plan, please call 855-402-2646.



Vanguard Target Retirement 2035 Trust II

Balanced fund (stocks and bonds)

Fund facts

Risk level					Total net assets	Expense ratio as of 03/31/21	Inception date	Fund number
Low ← → High					\$14.411 MM	0.075%	02/29/08	1477
1	2	3	4	5				

Investment objective

Vanguard Target Retirement 2035 Trust II seeks to provide capital appreciation and current income consistent with its current asset allocation.

Investment strategy

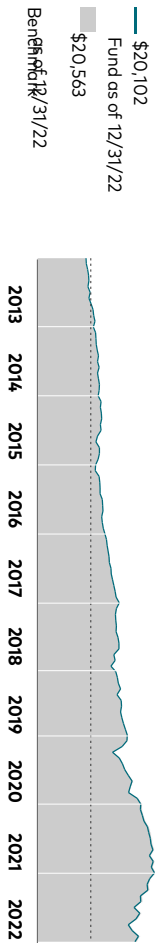
The trust invests in other Vanguard mutual funds and trusts according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2035 (the target year). The trust's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase. Within seven years after 2035, the trust's asset allocation should resemble that of the Target Retirement Income Trust II. The underlying holdings are: Vanguard Total Stock Market Index Fund, Vanguard Total Bond Market II Index Fund, Vanguard Institutional Total International Stock Market Index Trust II, Vanguard Total International Bond II Index Fund, and Vanguard Short-Term Inflation-Protected Securities Fund.

The trust's indirect bond holdings are a diversified mix of short-, intermediate-, and long-term U.S. government, U.S. agency, and investment-grade U.S. corporate bonds; inflation-protected public obligations issued by the U.S. Treasury; mortgage-backed and asset-backed securities; and government, agency, corporate, and securitized investment-grade foreign bonds issued in currencies other than the U.S. dollar (but hedged by Vanguard to minimize foreign currency exposure). The trust's indirect stock holdings are a diversified mix of U.S. and foreign large-, mid-, and small-capitalization stocks.

Benchmark

Target Retirement 2035 Composite Ix

Growth of a \$10,000 investment : January 31, 2013—December 31, 2022



Annual returns



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Fund	22.93	7.22	-1.12	8.37	19.18	-6.54	22.57	14.92	13.07	-16.52
Benchmark	23.27	7.57	-1.02	8.55	19.25	-6.48	22.76	15.67	13.24	-16.10

Total returns

Periods ended December 31, 2022

	Quarter	Year to date	One year	Three years	Five years	Ten years
Fund	7.51%	-16.52%	-16.52%	2.75%	4.44%	7.66%
Benchmark	7.57%	-16.10%	-16.10%	3.19%	4.76%	7.92%

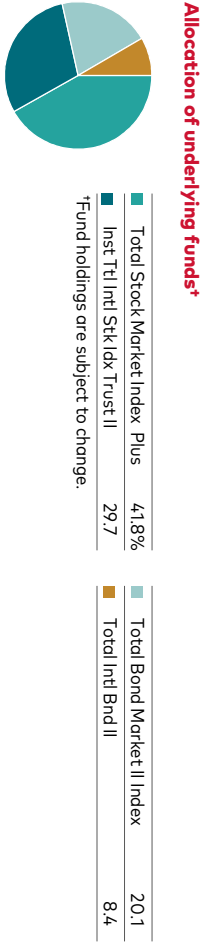
The performance data shown represent past performance, which is not a guarantee of future results. Investment returns and principal value will fluctuate, so investors' shares, when sold, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data cited. For performance data current to the most recent month-end, visit our website at vanguard.com/performance. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Figures for periods of less than one year are cumulative returns. All other figures represent average annual returns. Performance figures include the reinvestment of all dividends and any capital gains distributions. All returns are net of expenses.

Target Retirement 2035 Composite Ix: Derived by applying the fund's target asset allocation to the results of the following benchmarks: for international stocks of developed markets, the MSCI EAFE Index through December 15, 2010, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex US Index thereafter; for emerging-market stocks, the Select Emerging Markets Index through August 23, 2006, the MSCI Emerging Markets Index through December 15, 2010, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex US Index thereafter; for U.S. bonds, the Bloomberg U.S. Aggregate Bond Index through December 31, 2009, and the Bloomberg U.S. Aggregate Float Adjusted Index thereafter; for international bonds, the Bloomberg Global Aggregate ex-USD Float Adjusted RIC Capped Index Hedged beginning June 3, 2013, and for U.S. stocks, the Dow Jones U.S. Total Stock Market Index (formerly known as the Dow Jones Wilshire 5000 Index) through April 22, 2005, the MSCI US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Vanguard Target Retirement 2035 Trust II

Balanced fund (stocks and bonds)



Connect with Vanguard • vanguard.com

Plain talk about risk

The trust is subject to several stock and bond market risks, any of which could cause an investor to lose money. However, based on the trust's current allocation between stocks and the less-volatile asset class of bonds, the fund's overall level of risk should be higher than those funds that invest mostly in bonds, but lower than those investing mostly in stocks. As the trust's allocation between underlying funds gradually changes, the trust's overall level of risk also will decline. In addition to the risks inherent in the asset classes of the underlying funds, the trust also is subject to asset allocation risk, which is the chance that the selection of underlying funds and the allocation of fund assets will cause the trust to underperform other funds with a similar investment objective. Investments in Target Retirement Trusts are subject to the risks of their underlying funds. The year in the trust name refers to the approximate year 2035 when an investor in the trust would retire and leave the workforce. The trust will gradually shift its emphasis from more aggressive investments to more conservative ones based on its target date. An investment in the Target Retirement Trust is not guaranteed at any time, including on or after the target date.

Note on frequent trading restrictions

Frequent trading policies may apply to those funds offered as investment options within your plan. Please log on to vanguard.com for your employer plans or contact Participant Services at 800-523-1188 for additional information.

This investment is not a mutual fund. It is a collective trust available only to tax-qualified plans and their eligible participants.

This collective trust is managed by Vanguard Fiduciary Trust Company, a wholly owned subsidiary of The Vanguard Group, Inc., and is not a mutual fund. Investment objectives, risks, charges, expenses, and other important information should be considered carefully before investing.

For more information about Vanguard Investments, see below for which situation is right for you.

If you receive your retirement plan statement from Vanguard or log on to Vanguard's website to view your plan, visit vanguard.com or call 800-523-1188.

If you receive your retirement plan statement from a service provider other than Vanguard or log on to a recordkeeper's website that is not Vanguard to view your plan, please call 855-402-2646.



Vanguard Target Retirement 2040 Trust II

Balanced fund (stocks and bonds)

Fund facts

Risk level					Total net assets		Expense ratio as of 03/31/21	Inception date	Fund number
Low ← → High									
1	2	3	4	5	\$13,380 MM		0.075%	02/29/08	14,78

Investment objective

Vanguard Target Retirement 2040 Trust II seeks to provide capital appreciation and current income consistent with its current asset allocation.

Investment strategy

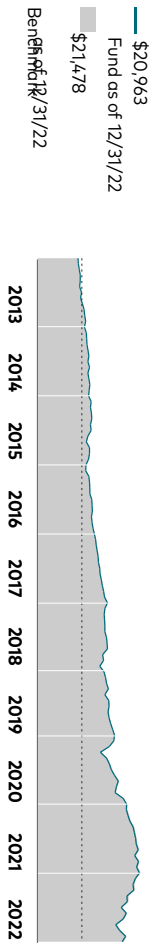
The trust invests in other Vanguard mutual funds and trusts according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2040 (the target year). The trust's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase. Within seven years after 2040, the trust's asset allocation should resemble that of the Target Retirement Income Trust II. The underlying holdings are: Vanguard Total Stock Market Index Fund, Vanguard Total Bond Market II Index Fund, Vanguard Institutional Total International Stock Market Index Trust II, Vanguard Total International Bond II Index Fund, and Vanguard Short-Term Inflation-Protected Securities Fund.

The trust's indirect bond holdings are a diversified mix of short-, intermediate-, and long-term U.S. government, U.S. agency, and investment-grade U.S. corporate bonds; inflation-protected public obligations issued by the U.S. Treasury; mortgage-backed and asset-backed securities; and government, agency, corporate, and securitized investment-grade foreign bonds issued in currencies other than the U.S. dollar (but hedged by Vanguard to minimize foreign currency exposure). The trust's indirect stock holdings are a diversified mix of U.S. and foreign large-, mid-, and small-capitalization stocks.

Benchmark

Target Retirement 2040 Composite Ix

Growth of a \$10,000 investment : January 31, 2013—December 31, 2022



Annual returns



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Fund	24.42	7.26	-1.47	8.79	20.81	-7.30	23.97	15.57	14.68	-16.94
Benchmark	24.79	7.61	-1.25	8.98	20.86	-7.23	24.19	16.31	14.84	-16.51

Total returns

Periods ended December 31, 2022

	Quarter	Year to date	One year	Three years	Five years	Ten years
Fund	8.19%	-16.94%	-16.94%	3.26%	4.82%	8.14%
Benchmark	8.23%	-16.51%	-16.51%	3.70%	5.14%	8.42%

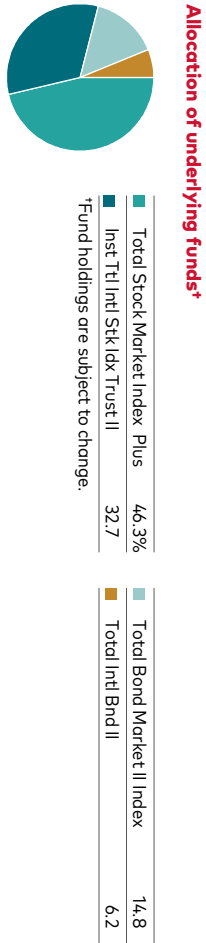
The performance data shown represent past performance, which is not a guarantee of future results. Investment returns and principal value will fluctuate, so investors' shares, when sold, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data cited. For performance data current to the most recent month-end, visit our website at vanguard.com/performance. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Figures for periods of less than one year are cumulative returns. All other figures represent average annual returns. Performance figures include the reinvestment of all dividends and any capital gains distributions. All returns are net of expenses.

Target Retirement 2040 Composite Ix: Derived by applying the fund's target asset allocation to the results of the following benchmarks: for international stocks of developed markets, the MSCI EAFE Index through December 15, 2010, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex US Index thereafter; for emerging-market stocks, the Select Emerging Markets Index through August 23, 2006, the MSCI Emerging Markets Index through December 15, 2010, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex US Index thereafter; for U.S. bonds, the Bloomberg U.S. Aggregate Bond Index through December 31, 2009, and the Bloomberg U.S. Aggregate Float Adjusted Index thereafter; for international bonds, the Bloomberg Global Aggregate ex-USD Float Adjusted RIC Capped Index Hedged beginning June 3, 2013, and for U.S. stocks, the MSCI US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Vanguard Target Retirement 2040 Trust II

Balanced fund (stocks and bonds)



Connect with Vanguard • vanguard.com
Plain talk about risk

The trust is subject to several stock and bond market risks, any of which could cause an investor to lose money. However, based on the trust's current allocation between stocks and the less-volatile asset class of bonds, the trust's overall level of risk should be higher than those funds that invest mostly in bonds, but lower than those investing mostly in stocks. As the trust's allocation between underlying funds gradually changes, the trust's overall level of risk also will decline. In addition to the risks inherent in the asset classes of the underlying funds, the trust also is subject to asset allocation risk, which is the chance that the selection of underlying funds and the allocation of fund assets will cause the trust to underperform other funds with a similar investment objective. Investments in Target Retirement Trusts are subject to the risks of their underlying funds. The year in the trust name refers to the approximate year 2040 when an investor in the trust would retire and leave the workforce. The trust will gradually shift its emphasis from more aggressive investments to more conservative ones based on its target date. An investment in the Target Retirement Trust is not guaranteed at any time, including on or after the target date.

Note on frequent trading restrictions

Frequent trading policies may apply to those funds offered as investment options within your plan. Please log on to vanguard.com for your employer plans or contact Participant Services at 800-523-1188 for additional information.

This investment is not a mutual fund. It is a collective trust available only to tax-qualified plans and their eligible participants.

This collective trust is managed by Vanguard Fiduciary Trust Company, a wholly owned subsidiary of The Vanguard Group, Inc., and is not a mutual fund. Investment objectives, risks, charges, expenses, and other important information should be considered carefully before investing.

For more information about Vanguard investments, see below for which situation is right for you.

If you receive your retirement plan statement from Vanguard or log on to Vanguard's website to view your plan, visit vanguard.com or call 800-523-1188.

If you receive your retirement plan statement from a service provider other than Vanguard or log on to a recordkeeper's website that is not Vanguard to view your plan, please call 855-402-2646.



Vanguard Target Retirement 2045 Trust II

Balanced fund (stocks and bonds)

Fund facts

Risk level					Total net assets		Expense ratio as of 03/31/21	Inception date	Fund number
Low ← → High									
1	2	3	4	5	\$11,907 MM		0.075%	02/29/08	1479

Investment objective

Vanguard Target Retirement 2045 Trust II seeks to provide capital appreciation and current income consistent with its current asset allocation.

Investment strategy

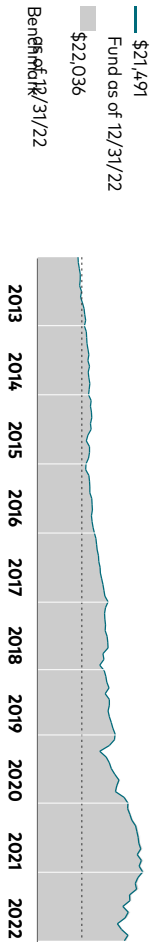
The trust invests in other Vanguard mutual funds and trusts according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2045 (the target year). The trust's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase. Within seven years after 2045, the trust's asset allocation should resemble that of the Target Retirement Income Trust II. The underlying holdings are: Vanguard Total Stock Market Index Fund, Vanguard Total Bond Market II Index Fund, Vanguard Institutional Total International Stock Market Index Trust II, Vanguard Total International Bond II Index Fund, and Vanguard Short-Term Inflation-Protected Securities Fund.

The trust's indirect bond holdings are a diversified mix of short-, intermediate-, and long-term U.S. government, U.S. agency, and investment-grade U.S. corporate bonds; inflation-protected public obligations issued by the U.S. Treasury; mortgage-backed and asset-backed securities; and government, agency, corporate, and securitized investment-grade foreign bonds issued in currencies other than the U.S. dollar (but hedged by Vanguard to minimize foreign currency exposure). The trust's indirect stock holdings are a diversified mix of U.S. and foreign large-, mid-, and small-capitalization stocks.

Benchmark

Target Retirement 2045 Composite Ix

Growth of a \$10,000 investment : January 31, 2013—December 31, 2022



Annual returns



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Fund	24.43	7.22	-1.48	8.91	21.51	-7.86	25.07	16.27	16.33	-17.33
Benchmark	24.79	7.61	-1.25	9.13	21.55	-7.77	25.37	17.02	16.45	-16.93

Total returns

Periods ended December 31, 2022

	Quarter	Year to date	One year	Three years	Five years	Ten years
Fund	8.90%	-17.33%	-17.33%	3.79%	5.20%	8.41%
Benchmark	8.88%	-16.93%	-16.93%	4.22%	5.53%	8.70%

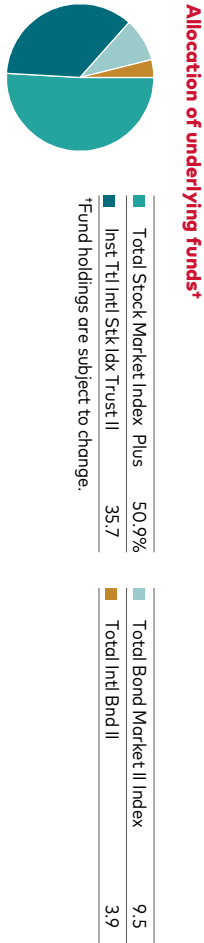
The performance data shown represent past performance, which is not a guarantee of future results. Investment returns and principal value will fluctuate, so investors' shares, when sold, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data cited. For performance data current to the most recent month-end, visit our website at vanguard.com/performance. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Figures for periods of less than one year are cumulative returns. All other figures represent average annual returns. Performance figures include the reinvestment of all dividends and any capital gains distributions. All returns are net of expenses.

Target Retirement 2045 Composite Ix: Derived by applying the fund's target asset allocation to the results of the following benchmarks: for international stocks of developed markets, the MSCI EAFE Index through December 15, 2010, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex US Index thereafter; for emerging-market stocks, the Select Emerging Markets Index through August 23, 2006, the MSCI Emerging Markets Index through December 15, 2010, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex US Index thereafter; for U.S. bonds, the Bloomberg U.S. Aggregate Bond Index through December 31, 2009, and the Bloomberg U.S. Aggregate Float Adjusted Index thereafter; for international bonds, the Bloomberg Global Aggregate ex-USD Float Adjusted RIC Capped Index Hedged beginning June 3, 2013, and for U.S. stocks, the Dow Jones U.S. Total Stock Market Index (formerly known as the Dow Jones Wilshire 5000 Index) through April 22, 2005, the MSCI US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Vanguard Target Retirement 2045 Trust II

Balanced fund (stocks and bonds)



Connect with Vanguard • vanguard.com

Plain talk about risk

The trust is subject to several stock and bond market risks, any of which could cause an investor to lose money. However, based on the trust's current allocation between stocks and the less-volatile asset class of bonds, the trust's overall level of risk should be higher than those funds that invest mostly in bonds, but lower than those investing mostly in stocks. As the trust's allocation between underlying funds gradually changes, the trust's overall level of risk also will decline. In addition to the risks inherent in the asset classes of the underlying funds, the trust also is subject to asset allocation risk, which is the chance that the selection of underlying funds and the allocation of fund assets will cause the trust to underperform other funds with a similar investment objective. Investments in Target Retirement Trusts are subject to the risks of their underlying funds. The year in the trust name refers to the approximate year 2045 when an investor in the trust would retire and leave the workforce. The trust will gradually shift its emphasis from more aggressive investments to more conservative ones based on its target date. An investment in the Target Retirement Trust is not guaranteed at any time, including on or after the target date.

Note on frequent trading restrictions

Frequent trading policies may apply to those funds offered as investment options within your plan. Please log on to vanguard.com for your employer plans or contact Participant Services at 800-523-1188 for additional information.

This investment is not a mutual fund. It is a collective trust available only to tax-qualified plans and their eligible participants.

This collective trust is managed by Vanguard Fiduciary Trust Company, a wholly owned subsidiary of The Vanguard Group, Inc., and is not a mutual fund. Investment objectives, risks, charges, expenses, and other important information should be considered carefully before investing.

For more information about Vanguard investments, see below for which situation is right for you.

If you receive your retirement plan statement from Vanguard or log on to Vanguard's website to view your plan, visit vanguard.com or call 800-523-1188.

If you receive your retirement plan statement from a service provider other than Vanguard or log on to a recordkeeper's website that is not Vanguard to view your plan, please call 855-402-2646.



Vanguard Target Retirement 2050 Trust II

Balanced fund (stocks and bonds)

Fund facts

Risk level					Total net assets		Expense ratio as of 03/31/21	Inception date	Fund number
Low ← → High									
1	2	3	4	5	\$10,557 MM		0.075%	02/29/08	1480

Investment objective

Vanguard Target Retirement 2050 Trust II seeks to provide capital appreciation and current income consistent with its current asset allocation.

Investment strategy

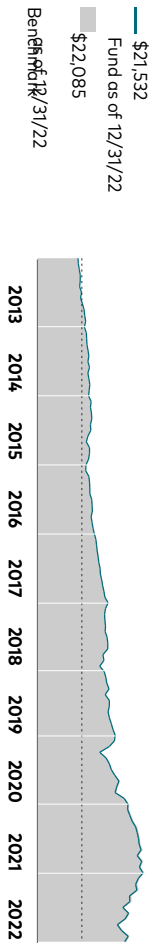
The trust invests in other Vanguard mutual funds and trusts according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2050 (the target year). The trust's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase. Within seven years after 2050, the trust's asset allocation should resemble that of the Target Retirement Income Trust II. The underlying holdings are: Vanguard Total Stock Market Index Fund, Vanguard Total Bond Market II Index Fund, Vanguard Institutional Total International Stock Market Index Trust II, Vanguard Total International Bond II Index Fund, and Vanguard Short-Term Inflation-Protected Securities Fund.

The trust's indirect bond holdings are a diversified mix of short-, intermediate-, and long-term U.S. government, U.S. agency, and investment-grade U.S. corporate bonds; inflation-protected public obligations issued by the U.S. Treasury; mortgage-backed and asset-backed securities; and government, agency, corporate, and securitized investment-grade foreign bonds issued in currencies other than the U.S. dollar (but hedged by Vanguard to minimize foreign currency exposure). The trust's indirect stock holdings are a diversified mix of U.S. and foreign large-, mid-, and small-capitalization stocks.

Benchmark

Target Retirement 2050 Composite Ix

Growth of a \$10,000 investment : January 31, 2013—December 31, 2022



Annual returns



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Fund	24.47	7.23	-1.54	8.95	21.48	-7.83	25.05	16.42	16.60	-17.45
Benchmark	24.79	7.61	-1.25	9.13	21.55	-7.77	25.37	17.17	16.75	-17.07

Total returns

Periods ended December 31, 2022

	Quarter	Year to date	One year	Three years	Five years	Ten years
Fund	9.24%	-17.45%	-17.45%	3.87%	5.25%	8.43%
Benchmark	9.18%	-17.07%	-17.07%	4.30%	5.58%	8.72%

The performance data shown represent past performance, which is not a guarantee of future results. Investment returns and principal value will fluctuate, so investors' shares, when sold, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data cited.

For performance data current to the most recent month-end, visit our website at vanguard.com/performance.

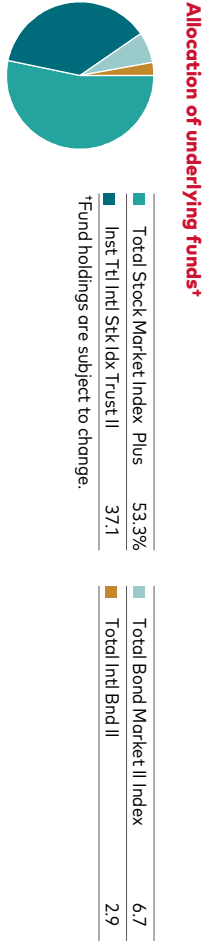
The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Figures for periods of less than one year are cumulative returns. All other figures represent average annual returns. Performance figures include the reinvestment of all dividends and any capital gains distributions. All returns are net of expenses.

Target Retirement 2050 Composite Ix: Derived by applying the fund's target asset allocation to the results of the following benchmarks: for international stocks of developed markets, the MSCI EAFE Index through December 15, 2010, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex US Index thereafter; for emerging-market stocks, the Select Emerging Markets Index through August 23, 2006, the MSCI Emerging Markets Index through December 15, 2010, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex US Index thereafter; for U.S. bonds, the Bloomberg U.S. Aggregate Bond Index through December 31, 2009, and the Bloomberg U.S. Aggregate Float Adjusted Index thereafter; for international bonds, the Bloomberg Global Aggregate ex-USD Float Adjusted RIC Capped Index Hedged beginning June 3, 2013, and for U.S. stocks, the MSCI US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Vanguard Target Retirement 2050 Trust II

Balanced fund (stocks and bonds)



Connect with Vanguard • [vanguard.com](https://www.vanguard.com)

Plain talk about risk

The trust is subject to several stock and bond market risks, any of which could cause an investor to lose money. However, based on the trust's current allocation between stocks and the less-volatile asset class of bonds, the trust's overall level of risk should be higher than those funds that invest mostly in bonds, but lower than those investing mostly in stocks. As the trust's allocation between underlying funds gradually changes, the trust's overall level of risk also will decline. In addition to the risks inherent in the asset classes of the underlying funds, the trust also is subject to asset allocation risk, which is the chance that the selection of underlying funds and the allocation of fund assets will cause the trust to underperform other funds with a similar investment objective. Investments in Target Retirement Trusts are subject to the risks of their underlying funds. The year in the trust name refers to the approximate year 2050 when an investor in the trust would retire and leave the workforce. The trust will gradually shift its emphasis from more aggressive investments to more conservative ones based on its target date. An investment in the Target Retirement Trust is not guaranteed at any time, including on or after the target date.

Note on frequent trading restrictions

Frequent trading policies may apply to those funds offered as investment options within your plan. Please log on to [vanguard.com](https://www.vanguard.com) for your employer plans or contact Participant Services at 800-523-1188 for additional information.

This investment is not a mutual fund. It is a collective trust available only to tax-qualified plans and their eligible participants.

This collective trust is managed by Vanguard Fiduciary Trust Company, a wholly owned subsidiary of The Vanguard Group, Inc., and is not a mutual fund. Investment objectives, risks, charges, expenses, and other important information should be considered carefully before investing.

For more information about Vanguard Investments, see below for which situation is right for you.

If you receive your retirement plan statement from Vanguard or log on to Vanguard's website to view your plan, visit [vanguard.com](https://www.vanguard.com) or call 800-523-1188.

If you receive your retirement plan statement from a service provider other than Vanguard or log on to a recordkeeper's website that is not Vanguard to view your plan, please call 855-402-2646.



Vanguard Target Retirement 2055 Trust II

Balanced fund (stocks and bonds)

Fund facts

Risk level					Total net assets		Expense ratio as of 03/31/21	Inception date	Fund number
Low ← → High					\$6,700 MM		0.075%	08/31/10	1489
1	2	3	4	5					

Investment objective

Vanguard Target Retirement 2055 Trust II seeks to provide capital appreciation and current income consistent with its current asset allocation.

Investment strategy

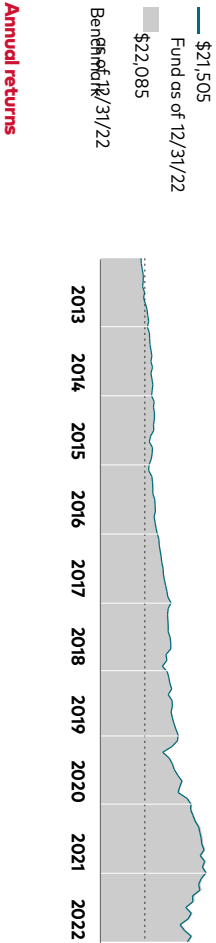
The trust invests in other Vanguard mutual funds and trusts according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2055 (the target year). The trust's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase. Within seven years after 2055, the trust's asset allocation should resemble that of the Target Retirement Income Trust II. The underlying holdings are: Vanguard Total Stock Market Index Fund, Vanguard Total Bond Market II Index Fund, Vanguard Institutional Total International Stock Market Index Trust II, Vanguard Total International Bond II Index Fund, and Vanguard Short-Term Inflation-Protected Securities Fund.

The trust's indirect bond holdings are a diversified mix of short-, intermediate-, and long-term U.S. government, U.S. agency, and investment-grade U.S. corporate bonds; inflation-protected public obligations issued by the U.S. Treasury; mortgage-backed and asset-backed securities; and government, agency, corporate, and securitized investment-grade foreign bonds issued in currencies other than the U.S. dollar (but hedged by Vanguard to minimize foreign currency exposure). The trust's indirect stock holdings are a diversified mix of U.S. and foreign large-, mid-, and small-capitalization stocks.

Benchmark

Target Retirement 2055 Composite Ix

Growth of a \$10,000 investment : January 31, 2013—December 31, 2022



Annual returns

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Fund	24.34	7.26	-1.66	8.97	21.49	-7.85	25.07	16.41	16.59	-17.44
Benchmark	24.79	7.61	-1.25	9.13	21.55	-7.77	25.37	17.17	16.75	-17.07

Total returns

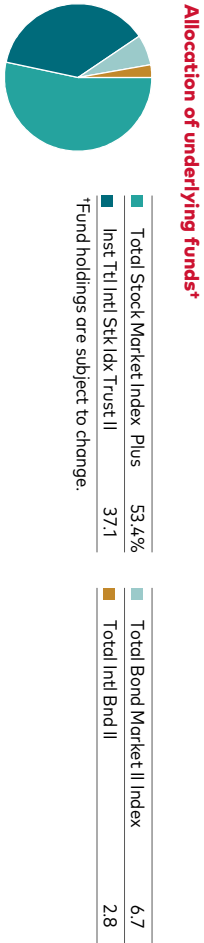
	Quarter	Year to date	One year	Three years	Five years	Ten years
Fund	9.25%	-17.44%	-17.44%	3.87%	5.25%	8.41%
Benchmark	9.18%	-17.07%	-17.07%	4.30%	5.58%	8.72%

The performance data shown represent past performance, which is not a guarantee of future results. Investment returns and principal value will fluctuate, so investors' shares, when sold, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data cited. For performance data current to the most recent month-end, visit our website at vanguard.com/performance. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index. Figures for periods of less than one year are cumulative returns. All other figures represent average annual returns. Performance figures include the reinvestment of all dividends and any capital gains distributions. All returns are net of expenses.

Target Retirement 2055 Composite Ix: Derived by applying the fund's target asset allocation to the results of the following benchmarks: for international stocks of developed markets, the MSCI EAFE Index through December 15, 2010, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex US Index thereafter; for emerging-market stocks, the MSCI Emerging Markets Index through December 15, 2010, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex US Index thereafter; for U.S. bonds, the Bloomberg U.S. Aggregate Float Adjusted Index; for international bonds, the Bloomberg Global Aggregate ex-USD Float Adjusted RIC Capped Index Hedged beginning June 3, 2013; and for U.S. stocks, the MSCI US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Vanguard Target Retirement 2055 Trust II

Balanced fund (stocks and bonds)



Connect with Vanguard • vanguard.com

Plain talk about risk

The trust is subject to several stock and bond market risks, any of which could cause an investor to lose money. However, based on the trust's current allocation between stocks and the less-volatile asset class of bonds, the trust's overall level of risk should be higher than those funds that invest mostly in bonds, but lower than those investing mostly in stocks. As the trust's allocation between underlying funds gradually changes, the trust's overall level of risk also will decline. In addition to the risks inherent in the asset classes of the underlying funds, the trust also is subject to asset allocation risk, which is the chance that the selection of underlying funds and the allocation of fund assets will cause the trust to underperform other funds with a similar investment objective. Investments in Target Retirement Trusts are subject to the risks of their underlying funds. The year in the trust name refers to the approximate year 2055 when an investor in the trust would retire and leave the workforce. The trust will gradually shift its emphasis from more aggressive investments to more conservative ones based on its target date. An investment in the Target Retirement Trust is not guaranteed at any time, including on or after the target date.

Note on frequent trading restrictions

Frequent trading policies may apply to those funds offered as investment options within your plan. Please log on to vanguard.com for your employer plans or contact Participant Services at 800-523-1188 for additional information.

This investment is not a mutual fund. It is a collective trust available only to tax-qualified plans and their eligible participants.

This collective trust is managed by Vanguard Fiduciary Trust Company, a wholly owned subsidiary of The Vanguard Group, Inc., and is not a mutual fund. Investment objectives, risks, charges, expenses, and other important information should be considered carefully before investing.

For more information about Vanguard investments, see below for which situation is right for you.

If you receive your retirement plan statement from Vanguard or log on to Vanguard's website to view your plan, visit vanguard.com or call 800-523-1188.

If you receive your retirement plan statement from a service provider other than Vanguard or log on to a recordkeeper's website that is not Vanguard to view your plan, please call 855-402-2646.



Vanguard Target Retirement 2060 Trust II

Balanced fund (stocks and bonds)

Fund facts

Risk level					Total net assets		Expense ratio as of 03/31/21	Inception date	Fund number
Low ← → High					\$3.318 MM		0.075%	03/01/12	1693
1	2	3	4	5					

Investment objective

Vanguard Target Retirement 2060 Trust II seeks to provide capital appreciation and current income consistent with its current asset allocation.

Investment strategy

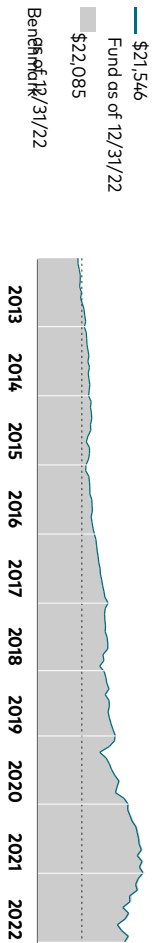
The trust invests in other Vanguard mutual funds and trusts according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2060 (the target year). The trust's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase. Within seven years after 2060, the trust's asset allocation should resemble that of the Target Retirement Income Trust II. The underlying holdings are: Vanguard Total Stock Market Index Fund, Vanguard Total Bond Market II Index Fund, Vanguard Institutional Total International Stock Market Index Trust II, Vanguard Total International Bond II Index Fund, and Vanguard Short-Term Inflation-Protected Securities Fund.

The trust's indirect bond holdings are a diversified mix of short-, intermediate-, and long-term U.S. government, U.S. agency, and investment-grade U.S. corporate bonds; inflation-protected public obligations issued by the U.S. Treasury; mortgage-backed and asset-backed securities; and government, agency, corporate, and securitized investment-grade foreign bonds issued in currencies other than the U.S. dollar (but hedged by Vanguard to minimize foreign currency exposure). The trust's indirect stock holdings are a diversified mix of U.S. and foreign large-, mid-, and small-capitalization stocks.

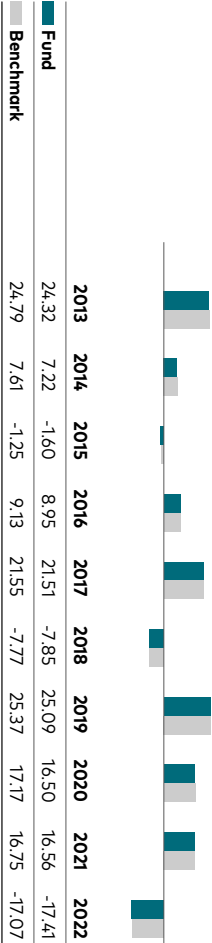
Benchmark

Target Retirement 2060 Composite Ix

Growth of a \$10,000 investment : January 31, 2013—December 31, 2022



Annual returns



Total returns

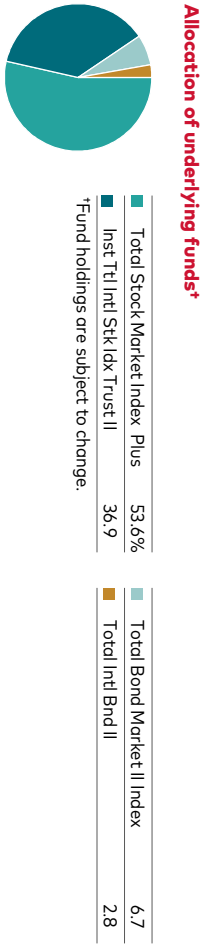
Periods ended December 31, 2022						
	Quarter	Year to date	One year	Three years	Five years	Ten years
Fund	9.25%	-17.41%	-17.41%	3.90%	5.27%	8.42%
Benchmark	9.18%	-17.07%	-17.07%	4.30%	5.58%	8.72%

The performance data shown represent past performance, which is not a guarantee of future results. Investment returns and principal value will fluctuate, so investors' shares, when sold, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data cited. For performance data current to the most recent month-end, visit our website at vanguard.com/performance. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index. Figures for periods of less than one year are cumulative returns. All other figures represent average annual returns. Performance figures include the reinvestment of all dividends and any capital gains distributions. All returns are net of expenses.

Target Retirement 2060 Composite Ix: Derived by applying the fund's target asset allocation to the results of the following benchmarks: for international stocks of developed markets, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex US Index thereafter; for emerging-market stocks, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex US Index thereafter; for U.S. bonds, the Bloomberg U.S. Aggregate Float Adjusted Index; for international bonds, the Bloomberg Global Aggregate ex-USD Float Adjusted RIC Capped Index Hedged beginning June 3, 2013; and for U.S. stocks, the MSCI US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Vanguard Target Retirement 2060 Trust II

Balanced fund (stocks and bonds)



Connect with Vanguard • vanguard.com

Plain talk about risk

The trust is subject to several stock and bond market risks, any of which could cause an investor to lose money. However, based on the trust's current allocation between stocks and the less-volatile asset class of bonds, the trust's overall level of risk should be higher than those funds that invest mostly in bonds, but lower than those investing mostly in stocks. As the trust's allocation between underlying funds gradually changes, the trust's overall level of risk also will decline. In addition to the risks inherent in the asset classes of the underlying funds, the trust also is subject to asset allocation risk, which is the chance that the selection of underlying funds and the allocation of fund assets will cause the trust to underperform other funds with a similar investment objective. Investments in Target Retirement Trusts are subject to the risks of their underlying funds. The year in the trust name refers to the approximate year 2060 when an investor in the trust would retire and leave the workforce. The trust will gradually shift its emphasis from more aggressive investments to more conservative ones based on its target date. An investment in the Target Retirement Trust is not guaranteed at any time, including on or after the target date.

Note on frequent trading restrictions

Frequent trading policies may apply to those funds offered as investment options within your plan. Please log on to vanguard.com for your employer plans or contact Participant Services at 800-523-1188 for additional information.

This investment is not a mutual fund. It is a collective trust available only to tax-qualified plans and their eligible participants.

This collective trust is managed by Vanguard Fiduciary Trust Company, a wholly owned subsidiary of The Vanguard Group, Inc., and is not a mutual fund. Investment objectives, risks, charges, expenses, and other important information should be considered carefully before investing.

For more information about Vanguard Investments, see below for which situation is right for you.

If you receive your retirement plan statement from Vanguard or log on to Vanguard's website to view your plan, visit vanguard.com or call 800-523-1188.

If you receive your retirement plan statement from a service provider other than Vanguard or log on to a recordkeeper's website that is not Vanguard to view your plan, please call 855-402-2646.



Vanguard Target Retirement 2065 Trust II

Balanced fund (stocks and bonds)

Fund facts

Risk level					Total net assets	Expense ratio as of 03/31/21	Inception date	Fund number
1	2	3	4	5				
Low ← → High								
					\$765 MM	0.075%	07/17/17	1794

Investment objective

Vanguard Target Retirement 2065 Trust II seeks to provide capital appreciation and current income consistent with its current asset allocation.

Investment strategy

The trust invests in other Vanguard mutual funds and trusts according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2065 (the target year). The trust's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase. Within seven years after 2065, the trust's asset allocation should resemble that of the Target Retirement Income Trust II. The underlying holdings are: Vanguard Total Stock Market Index Fund, Vanguard Total Bond Market II Index Fund, Vanguard Institutional Total International Stock Market Index Trust II, Vanguard Total International Bond II Index Fund, and Vanguard Short-Term Inflation-Protected Securities Fund.

The trust's indirect bond holdings are a diversified mix of short-, intermediate-, and long-term U.S. government, U.S. agency, and investment-grade U.S. corporate bonds; inflation-protected public obligations issued by the U.S. Treasury; mortgage-backed and asset-backed securities; and government, agency, corporate, and securitized investment-grade foreign bonds issued in currencies other than the U.S. dollar (but hedged by Vanguard to minimize foreign currency exposure). The trust's indirect stock holdings are a diversified mix of U.S. and foreign large-, mid-, and small-capitalization stocks.

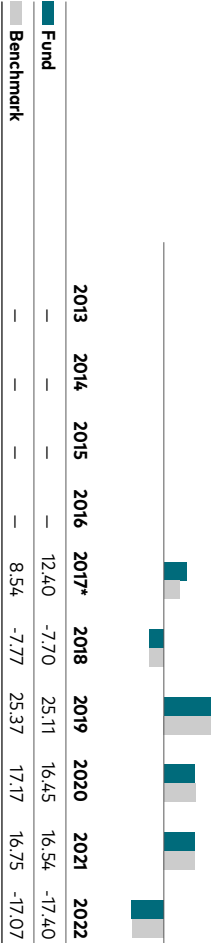
Benchmark

Target Retirement 2065 Composite Ix

Growth of a \$10,000 investment : July 31, 2017 –December 31, 2022



Annual returns



Total returns

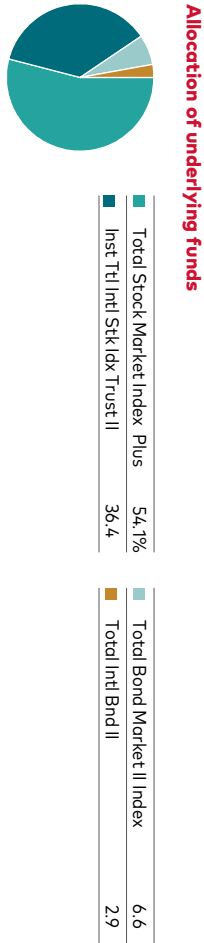
Fund	Quarter					Year to date					One year					Three years					Five years					Since inception				
	9.23%					-17.40%					-17.40%					3.88%					5.30%					7.11%				
Benchmark	9.18%					-17.07%					-17.07%					4.30%					5.58%					—				

The performance data shown represent past performance, which is not a guarantee of future results. Investment returns and principal value will fluctuate, so investors' shares, when sold, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data cited. For performance data current to the most recent month-end, visit our website at vanguard.com/performance. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index. Figures for periods of less than one year are cumulative returns. All other figures represent average annual returns. Performance figures include the reinvestment of all dividends and any capital gains distributions. All returns are net of expenses.

* Partial return since fund started, July 17, 2017.
Target Retirement 2065 Composite Ix: Derived by applying the fund's target asset allocation to the results of the following benchmarks: the FTSE Global All Cap ex US Index for international stocks, the Bloomberg U.S. Aggregate Float Adjusted Index for U.S. bonds, the Bloomberg Global Aggregate ex-USD Float Adjusted Index Hedged for international bonds, and the CRSP US Total Market Index for U.S. stocks. International stock benchmark returns are adjusted for withholding taxes.

Vanguard Target Retirement 2065 Trust II

Balanced fund (stocks and bonds)



Connect with Vanguard • vanguard.com

Plain talk about risk

The trust is subject to several stock and bond market risks, any of which could cause an investor to lose money. However, based on the trust's current allocation between stocks and the less-volatile asset class of bonds, the trust's overall level of risk should be higher than those funds that invest mostly in bonds, but lower than those investing mostly in stocks. As the trust's allocation between underlying funds gradually changes, the trust's overall level of risk also will decline. In addition to the risks inherent in the asset classes of the underlying funds, the trust also is subject to asset allocation risk, which is the chance that the selection of underlying funds and the allocation of fund assets will cause the trust to underperform other funds with a similar investment objective. Investments in Target Retirement Trusts are subject to the risks of their underlying funds. The year in the trust name refers to the approximate year 2065 when an investor in the trust would retire and leave the workforce. The trust will gradually shift its emphasis from more aggressive investments to more conservative ones based on its target date. An investment in the Target Retirement Trust is not guaranteed at any time, including on or after the target date.

Note on frequent trading restrictions

Frequent trading policies may apply to those funds offered as investment options within your plan. Please log on to vanguard.com for your employer plans or contact Participant Services at 800-523-1188 for additional information.

This investment is not a mutual fund. It is a collective trust available only to tax-qualified plans and their eligible participants.

This collective trust is managed by Vanguard Fiduciary Trust Company, a wholly owned subsidiary of The Vanguard Group, Inc., and is not a mutual fund. Investment objectives, risks, charges, expenses, and other important information should be considered carefully before investing.

For more information about Vanguard investments, see below for which situation is right for you.

If you receive your retirement plan statement from Vanguard or log on to Vanguard's website to view your plan, visit vanguard.com or call 800-523-1188.

If you receive your retirement plan statement from a service provider other than Vanguard or log on to a recordkeeper's website that is not Vanguard to view your plan, please call 855-402-2646.



Vanguard Target Retirement 2070 Trust II

Balanced fund (stocks and bonds)

Fund facts

Risk level					Total net assets	Expense ratio as of 04/07/22	Inception date	Fund number
Low ← → High					\$16 MM	0.075%	04/07/22	V006
1	2	3	4	5				

Investment objective

Vanguard Target Retirement 2070 Trust II seeks to provide capital appreciation and current income consistent with its current asset allocation.

Investment strategy

The trust invests in other Vanguard mutual funds and trusts according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2070 (the target year). The trust's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase. Within seven years after 2070, the trust's asset allocation should resemble that of the Target Retirement Income Trust II. The underlying holdings are: Vanguard Total Stock Market Index Fund, Vanguard Total Bond Market II Index Fund, Vanguard Institutional Total International Stock Market Index Trust II, Vanguard Total International Bond II Index Fund, and Vanguard Short-Term Inflation-Protected Securities Fund.

The trust's indirect bond holdings are a diversified mix of short-, intermediate-, and long-term U.S. government, U.S. agency, and investment-grade U.S. corporate bonds; inflation-protected public obligations issued by the U.S. Treasury; mortgage-backed and asset-backed securities; and government, agency, corporate, and securitized investment-grade foreign bonds issued in currencies other than the U.S. dollar (but hedged by Vanguard to minimize foreign currency exposure). The trust's indirect stock holdings are a diversified mix of U.S. and foreign large-, mid-, and small-capitalization stocks.

Benchmark

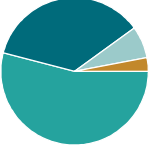
Target Retirement 2070 Composite Index

Total returns

	Quarter	Year to date	Since inception
Fund	9.30%	-11.25%	-11.25%
Benchmark	9.18%	-17.07%	—

The performance data shown represent past performance, which is not a guarantee of future results. Investment returns and principal value will fluctuate, so investors' shares, when sold, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data cited. For performance data current to the most recent month-end, visit our website at vanguard.com/performance. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index. Figures for periods of less than one year are cumulative returns. All other figures represent average annual returns. Performance figures include the reinvestment of all dividends and any capital gains distributions. All returns are net of expenses.

Allocation of underlying funds



Total Stock Market Index Plus	54.1%	Total Bond Market II Index	7.0
Inst Ttl Intl Stk Idx Trust II	35.9	Total Intl Bond II	3.0

Target Retirement 2070 Composite Index: Derived by applying the fund's target asset allocation to the results of the following benchmarks: the FTSE Global All Cap ex US Index for international stocks, the Bloomberg U.S. Aggregate Float Adjusted Index for U.S. bonds, the Bloomberg Global Aggregate ex-USD Float Adjusted RIC Capped Index Hedged for international bonds, and the CRSP US Total Market Index for U.S. stocks. International stock benchmark returns are adjusted for withholding taxes.

Vanguard Target Retirement 2070 Trust II

Balanced fund (stocks and bonds)

Connect with Vanguard • vanguard.com
Plain talk about risk

The trust is subject to several stock and bond market risks, any of which could cause an investor to lose money. However, based on the trust's current allocation between stocks and the less-volatile asset class of bonds, the trust's overall level of risk should be higher than those funds that invest mostly in bonds, but lower than those investing mostly in stocks. As the trust's allocation between underlying funds gradually changes, the trust's overall level of risk also will decline. In addition to the risks inherent in the asset classes of the underlying funds, the trust also is subject to asset allocation risk, which is the chance that the selection of underlying funds and the allocation of fund assets will cause the trust to underperform other funds with a similar investment objective. Investments in Target Retirement Trusts are subject to the risks of their underlying funds. The year in the trust name refers to the approximate year 2070 when an investor in the trust would retire and leave the workforce. The trust will gradually shift its emphasis from more aggressive investments to more conservative ones based on its target date. An investment in the Target Retirement 2070 Trust II is not guaranteed at any time, including on or after the target date.

Note on frequent trading restrictions

Frequent trading policies may apply to those funds offered as investment options within your plan. Please log on to vanguard.com for your employer plans or contact Participant Services at 800-523-1188 for additional information.

This investment is not a mutual fund. It is a collective trust available only to tax-qualified plans and their eligible participants.

For more information about Vanguard funds or to obtain a prospectus, see below for which situation is right for you.

If you receive your retirement plan statement from Vanguard or log on to Vanguard's website to view your plan, visit vanguard.com or call **800-523-1188**.

If you receive your retirement plan statement from a service provider other than Vanguard or log on to a recordkeeper's website that is not Vanguard to view your plan, please call **855-402-2646**.

Visit vanguard.com to obtain a prospectus or, if available, a summary prospectus. Investment objectives, risks, charges, expenses, and other important information about a fund are contained in the prospectus; read and consider it carefully before investing.



Vanguard Target Retirement Income Trust II

Balanced fund (stocks and bonds)

Fund facts

Risk level					Total net assets	Expense ratio as of 03/31/21	Inception date	Fund number
Low ← → High								
1	2		4	5	\$4,186 MM	0.075%	02/29/08	1471

Investment objective

Vanguard Target Retirement Income Trust II seeks to provide current income and some capital appreciation.

Investment strategy

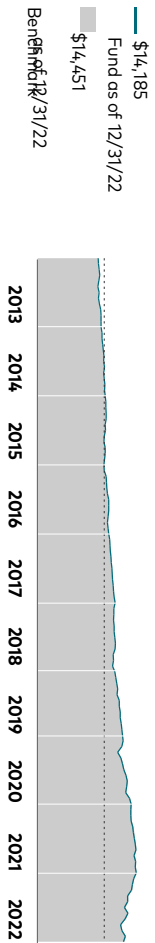
The trust invests in other Vanguard mutual funds and trusts according to an asset allocation strategy designed for investors currently in retirement. The underlying holdings are: Vanguard Total Stock Market Index Fund, Vanguard Total Bond Market II Index Fund, Vanguard Institutional Total International Stock Market Index Trust II, Vanguard Total International Bond II Index Fund, and Vanguard Short-Term Inflation-Protected Securities Fund.

The trust's indirect bond holdings are a diversified mix of short-, intermediate-, and long-term U.S. government, U.S. agency, and investment-grade U.S. corporate bonds; inflation-protected public obligations issued by the U.S. Treasury; mortgage-backed and asset-backed securities; and government, agency, corporate, and securitized investment-grade foreign bonds issued in currencies other than the U.S. dollar (but hedged by Vanguard to minimize foreign currency exposure). The trust's indirect stock holdings are a diversified mix of U.S. and foreign large-, mid-, and small-capitalization stocks.

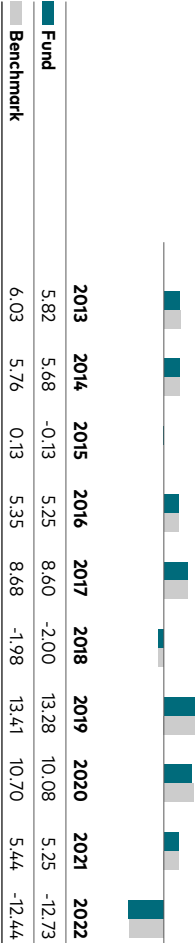
Benchmark

Target Retirement Income Compos. Ix

Growth of a \$10,000 investment : January 31, 2013—December 31, 2022



Annual returns



Total returns

Fund	Periods ended December 31, 2022					
	Quarter	Year to date	One year	Three years	Five years	Ten years
Fund	3.78%	-12.73%	-12.73%	0.37%	2.34%	3.66%
Benchmark	3.95%	-12.44%	-12.44%	0.73%	2.59%	3.86%

The performance data shown represent past performance, which is not a guarantee of future results. Investment returns and principal value will fluctuate, so investors' shares, when sold, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data cited. For performance data current to the most recent month-end, visit our website at vanguard.com/performance. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index. Figures for periods of less than one year are cumulative returns. All other figures represent average annual returns. Performance figures include the reinvestment of all dividends and any capital gains distributions. All returns are net of expenses.

Target Retirement Income Compos. Ix: Derived by applying the fund's target asset allocation to the results of the following benchmarks: for international stocks of developed markets, the MSCI EAFE Index through December 15, 2010, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex US Index thereafter; for emerging-market stocks, the Select Emerging Markets Index through August 23, 2006, the MSCI Emerging Markets Index through December 15, 2010, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex US Index thereafter; for U.S. bonds, the Bloomberg U.S. Aggregate Bond Index through December 31, 2009, and the Bloomberg U.S. Aggregate Float Adjusted Index thereafter, as well as the Bloomberg U.S. Treasury Inflation-Protected Securities Index through June 2, 2013, and the Bloomberg U.S. Treasury Inflation-Protected Securities (TIPS) 0-5 Year Index thereafter; for short-term reserves, the Citigroup Three-Month Treasury Bill Index through June 2, 2013; for international bonds, the Bloomberg Global Aggregate ex-USD Float Adjusted RIC Capped Index. Hedged beginning June 3, 2013; and for U.S. stocks, the Dow Jones U.S. Total Stock Market Index (formerly known as the Dow Jones Wilshire 5000 Index) through April 22, 2005, the MSCI US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Vanguard Target Retirement Income Trust II

Balanced fund (stocks and bonds)



Connect with Vanguard • [vanguard.com](https://www.vanguard.com)

Plain talk about risk

The trust is subject to several stock and bond market risks, any of which could cause an investor to lose money. However, based on the trust's current allocation between stocks and the less volatile asset class of bonds, the trust's overall level of risk should be higher than those funds that invest mostly in bonds, but lower than those investing mostly in stocks. In addition to the risks inherent in the asset classes of the underlying funds, the trust also is subject to asset allocation risk, which is the chance that the selection of underlying funds and the allocation of fund assets will cause the fund to underperform other funds with a similar investment objective.

Note on frequent trading restrictions

Frequent trading policies may apply to those funds offered as investment options within your plan. Please log on to [vanguard.com](https://www.vanguard.com) for your employer plans or contact Participant Services at 800-523-1188 for additional information.

This investment is not a mutual fund. It is a collective trust available only to tax-qualified plans and their eligible participants.

This collective trust is managed by Vanguard Fiduciary Trust Company, a wholly owned subsidiary of The Vanguard Group, Inc., and is not a mutual fund. Investment objectives, risks, charges, expenses, and other important information should be considered carefully before investing.

For more information about Vanguard investments, see below for which situation is right for you.

If you receive your retirement plan statement from Vanguard or log on to Vanguard's website to view your plan, visit [vanguard.com](https://www.vanguard.com) or call 800-523-1188.

If you receive your retirement plan statement from a service provider other than Vanguard or log on to a recordkeeper's website that is not Vanguard to view your plan, please call 855-402-2646.

Morningstar Analyst Rating [™]	Overall Morningstar Rating [™]	Standard Index	Category Index	Morningstar Cat
Gold	★★★★	Bloomberg US Agg Bond TR USD	Bloomberg US Agg Bond TR USD	US Fund Intermediate Core Bond
06-30-2022	405 US Fund Intermediate			

[illegible]

11-05	10-06	10-03	10-02	09-11	09-08	09-05	08-11	08-08	08-05	07-11	07-08	07-05	06-11	06-08	06-05	05-11	05-08	05-05	04-11	04-08	04-05	03-11	03-08	03-05	02-11	02-08	02-05	01-11	01-08	01-05	00-11	00-08	00-05	99-11	99-08	99-05	98-11	98-08	98-05	97-11	97-08	97-05	96-11	96-08	96-05	95-11	95-08	95-05	94-11	94-08	94-05	93-11	93-08	93-05	92-11	92-08	92-05	91-11	91-08	91-05	90-11	90-08	90-05	89-11	89-08	89-05	88-11	88-08	88-05	87-11	87-08	87-05	86-11	86-08	86-05	85-11	85-08	85-05	84-11	84-08	84-05	83-11	83-08	83-05	82-11	82-08	82-05	81-11	81-08	81-05	80-11	80-08	80-05	79-11	79-08	79-05	78-11	78-08	78-05	77-11	77-08	77-05	76-11	76-08	76-05	75-11	75-08	75-05	74-11	74-08	74-05	73-11	73-08	73-05	72-11	72-08	72-05	71-11	71-08	71-05	70-11	70-08	70-05	69-11	69-08	69-05	68-11	68-08	68-05	67-11	67-08	67-05	66-11	66-08	66-05	65-11	65-08	65-05	64-11	64-08	64-05	63-11	63-08	63-05	62-11	62-08	62-05	61-11	61-08	61-05	60-11	60-08	60-05	59-11	59-08	59-05	58-11	58-08	58-05	57-11	57-08	57-05	56-11	56-08	56-05	55-11	55-08	55-05	54-11	54-08	54-05	53-11	53-08	53-05	52-11	52-08	52-05	51-11	51-08	51-05	50-11	50-08	50-05	49-11	49-08	49-05	48-11	48-08	48-05	47-11	47-08	47-05	46-11	46-08	46-05	45-11	45-08	45-05	44-11	44-08	44-05	43-11	43-08	43-05	42-11	42-08	42-05	41-11	41-08	41-05	40-11	40-08	40-05	39-11	39-08	39-05	38-11	38-08	38-05	37-11	37-08	37-05	36-11	36-08	36-05	35-11	35-08	35-05	34-11	34-08	34-05	33-11	33-08	33-05	32-11	32-08	32-05	31-11	31-08	31-05	30-11	30-08	30-05	29-11	29-08	29-05	28-11	28-08	28-05	27-11	27-08	27-05	26-11	26-08	26-05	25-11	25-08	25-05	24-11	24-08	24-05	23-11	23-08	23-05	22-11	22-08	22-05	21-11	21-08	21-05	20-11	20-08	20-05	19-11	19-08	19-05	18-11	18-08	18-05	17-11	17-08	17-05	16-11	16-08	16-05	15-11	15-08	15-05	14-11	14-08	14-05	13-11	13-08	13-05	12-11	12-08	12-05	11-11	11-08	11-05	10-11	10-08	10-05	09-11	09-08	09-05	08-11	08-08	08-05	07-11	07-08	07-05	06-11	06-08	06-05	05-11	05-08	05-05	04-11	04-08	04-05	03-11	03-08	03-05	02-11	02-08	02-05	01-11	01-08	01-05	00-11	00-08	00-05	99-11	99-08	99-05	98-11	98-08	98-05	97-11	97-08	97-05	96-11	96-08	96-05	95-11	95-08	95-05	94-11	94-08	94-05	93-11	93-08	93-05	92-11	92-08	92-05	91-11	91-08	91-05	90-11	90-08	90-05	89-11	89-08	89-05	88-11	88-08	88-05	87-11	87-08	87-05	86-11	86-08	86-05	85-11	85-08	85-05	84-11	84-08	84-05	83-11	83-08	83-05	82-11	82-08	82-05	81-11	81-08	81-05	80-11	80-08	80-05	79-11	79-08	79-05	78-11	78-08	78-05	77-11	77-08	77-05	76-11	76-08	76-05	75-11	75-08	75-05	74-11	74-08	74-05	73-11	73-08	73-05	72-11	72-08	72-05	71-11	71-08	71-05	70-11	70-08	70-05	69-11	69-08	69-05	68-11	68-08	68-05	67-11	67-08	67-05	66-11	66-08	66-05	65-11	65-08	65-05	64-11	64-08	64-05	63-11	63-08	63-05	62-11	62-08	62-05	61-11	61-08	61-05	60-11	60-08	60-05	59-11	59-08	59-05	58-11	58-08	58-05	57-11	57-08	57-05	56-11	56-08	56-05	55-11	55-08	55-05	54-11	54-08	54-05	53-11	53-08	53-05	52-11	52-08	52-05	51-11	51-08	51-05	50-11	50-08	50-05	49-11	49-08	49-05	48-11	48-08	48-05	47-11	47-08	47-05	46-11	46-08	46-05	45-11	45-08	45-05	44-11	44-08	44-05	43-11	43-08	43-05	42-11	42-08	42-05	41-11	41-08	41-05	40-11	40-08	40-05	39-11	39-08	39-05	38-11	38-08	38-05	37-11	37-08	37-05	36-11	36-08	36-05	35-11	35-08	35-05	34-11	34-08	34-05	33-11	33-08	33-05	32-11	32-08	32-05	31-11	31-08	31-05	30-11	30-08	30-05	29-11	29-08	29-05	28-11	28-08	28-05	27-11	27-08	27-05	26-11	26-08	26-05	25-11	25-08	25-05	24-11	24-08	24-05	23-11	23-08	23-05	22-11	22-08	22-05	21-11	21-08	21-05	20-11	20-08	20-05	19-11	19-08	19-05	18-11	18-08	18-05	17-11	17-08	17-05	16-11	16-08	16-05	15-11	15-08	15-05	14-11	14-08	14-05	13-11	13-08	13-05	12-11	12-08	12-05	11-11	11-08	11-05	10-11	10-08	10-05	09-11	09-08	09-05	08-11	08-08	08-05	07-11	07-08	07-05	06-11	06-08	06-05	05-11	05-08	05-05	04-11	04-08	04-05	03-11	03-08	03-05	02-11	02-08	02-05	01-11	01-08	01-05	00-11	00-08	00-05	99-11	99-08	99-05	98-11	98-08	98-05	97-11	97-08	97-05	96-11	96-08	96-05	95-11	95-08	95-05	94-11	94-08	94-05	93-11	93-08	93-05	92-11	92-08	92-05	91-11	91-08	91-05	90-11	90-08	90-05	89-11	89-08	89-05	88-11	88-08	88-05	87-11	87-08	87-05	86-11	86-08	86-05	85-11	85-08	85-05	84-11	84-08	84-05	83-11	83-08	83-05	82-11	82-08	82-05	81-11	81-08	81-05	80-11	80-08	80-05	79-11	79-08	79-05	78-11	78-08	78-05	77-11	77-08	77-05	76-11	76-08	76-05	75-11	75-08	75-05	74-11	74-08	74-05	73-11	73-08	73-05	72-11	72-08	72-05	71-11	71-08	71-05	70-11	70-08	70-05	69-11	69-08	69-05	68-11	68-08	68-05	67-11	67-08	67-05	66-11	66-08	66-05	65-11	65-08	65-05	64-11	64-08	64-05	63-11	63-08	63-05	62-11	62-08	62-05	61-11	61-08	61-05	60-11	60-08	60-05	59-11	59-08	59-05	58-11	58-08	58-05	57-11	57-08	57-05	56-11	56-08	56-05	55-11	55-08	55-05	54-11	54-08	54-05	53-11	53-08	53-05	52-11	52-08	52-05	51-11	51-08	51-05	50-11	50-08	50-05	49-11	49-08	49-05	48-11	48-08	48-05	47-11	47-08	47-05	46-11	46-08	46-05	45-11	45-08	45-05	44-11	44-08	44-05	43-11	43-08	43-05	42-11	42-08	42-05	41-11	41-08	41-05	40-11	40-08	40-05	39-11	39-08	39-05	38-11	38-08	38-05	37-11	37-08	37-05	36-11	36-08	36-05	35-11	35-08	35-05	34-11	34-08	34-05	33-11	33-08	33-05	32-11	32-08	32-05	31-11	31-08	31-05	30-11	30-08	30-05	29-11	29-08	29-05	28-11	28-08	28-05	27-11	27-08	27-05	26-11	26-08	26-05	25-11	25-08	25-05	24-11	24-08	24-05	23-11	23-08	23-05	22-11	22-08	22-05	21-11	21-08	21-05	20-11	20-08	20-05	19-11	19-08	19-05	18-11	18-08	18-05	17-11	17-08	17-05	16-11	16-08	16-05	15-11	15-08	15-05	14-11	14-08	14-05	13-11	13-08	13-05	12-11	12-08	12-05	11-11	11-08	11-05	10-11	10-08	10-05	09-11	09-08	09-05	08-11	08-08	08-05	07-11	07-08	07-05	06-11	06-08	06-05	05-11	05-08	05-05	04-11	04-08	04-05	03-11	03-08	03-05	02-11	02-08	02-05	01-11	01-08	01-05	00-11	00-08	00-05	99-11	99-08	99-05	98-11	98-08	98-05	97-11	97-08	97-05	96-11	96-08	96-05	95-11	95-08	95-05	94-11	94-08	94-05	93-11	93-08	93-05	92-11	92-08	92-05	91-11	91-08	91-05	90-11	90-08	90-05	89-11	89-08	89-05	88-11	88-08	88-05	87-11	87-08	87-05	86-11	86-08	86-05	85-11	85-08	85-05	84-11	84-08	84-05	83-11	83-08	83-05	82-11	82-08	82-05	81-11	81-08	81-05	80-11	80-08	80-05	79-11	79-08	79-05	78-11	78-08	78-05	77-11	77-08	77-05	76-11	76-08	76-05	75-11	75-08	75-05	74-11	74-08	74-05	73-11	73-08	73-05	72-11	72-08	72-05	71-11	71-08	71-05	70-11	70-08	70-05	69-11	69-08	69-05	68-11	68-08	68-05	67-11	67-08	67-05	66-11	66-08	66-05	65-11	65-08	65-05	64-11	64-08	64-05	63-11	63-08	63-05	62-11	62-08	62-05	61-11	61-08	61-05	60-11	60-08	60-05	59-11	59-08	59-05	58-11	58-08	58-05	57-11	57-08	57-05	56-11	56-08	56-05	55-11	55-08	55-05	54-11	54-08	54-05	53-11	53-08	53-05	52-11	52-08	52-05	51-11	51-08	51-05	50-11	50-08	50-05	49-11	49-08	49-05	48-11	48-08	48-05	47-11	47-08	47-05	46-11	46-08	46-05	45-11	45-08	45-05	44-11	44-08	44-05	43-11	43-08	43-05	42-11	42-08	42-05	41-11	41-08	41-05	40-11	40-08	40-05	39-11	39-08	39-05	38-11	38-08	38-05	37-11	37-08	37-05	36-11	36-08	36-05	35-11	35-08	35-05	34-11	34-08	34-05	33-11	33-08	33-05	32-11	32-08	32-05	31-11	31-08	31-05	30-11	30-08	30-05	29-11	29-08	29-05	28-11	28-08	28-05	27-11	27-08	27-05	26-11	26-08	26-05	25-11	25-08	25-05	24-11	24-08	24-05	23-11	23-08	23-05	22-11	22-08	22-05	21-11	21-08	21-05	20-11	20-08	20-05	19-11	19-08	19-05	18-11	18-08	18-05	17-11	17-08	17-05	16-11	16-08	16-05	15-11	15-08	15-05	14-11	14-08	14-05	13-11	13-08	13-05	12-11	12-08	12-05	11-11	11-08	11-05	10-11	10-08	10-05	09-11	09-08	09-05	08-11	08-08	08-05	07-11	07-08	07-05	06-11	06-08	06-05	05-11	05-08	05-05	04-11	04-08	04-05	03-11	03-08	03-05	02-11	02-08	02-05	01-11	01-08	01-05	00-11	00-08	00-05	99-11	99-08	99-05	98-11
-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------

							+/- Category Index				
-0.12	-0.03	-0.11	-0.06	-0.14	-0.04	0.03	-0.02	0.01	0.23	-0.11	-0.14
11	83	67	30	28	62	55	30	33	45	50	40
1195	1165	1079	1038	1042	985	986	1019	430	415	423	453
										No. of Funds in Cat	% Rank Cat

Portfolio Analysis 12-31-2022				
Asset Allocation %	Net %	Long %	Short %	Share Cng
Cash	1.34	1.34	0.00	since
US Stocks	0.00	0.00	0.00	11-2022
				Share
				Amount
				Holdings :
				0 Total Stocks , 14,388 Total Fixed-Income,
				69% Turnover Ratio
				11-31-2022
				Net Assets
				%

Asset Class	Weight	Asset Class	Weight
Non-US Stocks	0.00	United States Treasury Notes 0.75%	0.45%
Bonds	98.62	United States Treasury Notes 2%	0.45%
Other/Not Csf'd	0.03	United States Treasury Notes 1.25%	0.43%
	98.67		
	0.15		

Total	100.00	100.15	0.15	⊕	1,630 mil	United States Treasury Notes 1.375%	0.47
-------	--------	--------	------	---	-----------	-------------------------------------	------

Equity Style		Portfolio Statistics	
Value	Bond Growth	Port	Hel
P/E Ratio TTM	—	Hel	Rel
P/C Ratio TTM	—	Index	Cat
1.399 mil	United States Treasury Notes 2.75%	1,304 mil	United States Treasury Notes 2%
0.45%	0.45%		

P/B Ratio TTM	—	⊕	1,750 mil	United States Treasury Notes 1.075%	0.40%
Geo Avg Mkt Cap \$mil	—	⊕	1,463 mil	United States Treasury Notes 1.25%	0.42%
	—	⊕	1,278 mil	United States Treasury Notes 2.875%	0.42%
	Small				

Fixed-Income Style					
Lid	Maid	Est			
Avg Eff Maturity	8.90	\oplus			
Avg Eff Duration	6.47				
			1,326 mil	United States Treasury Notes 1.625%	0.4%
			1,093 mil	United States Treasury Notes 1.125%	0.4%
			1,275 mil	United States Treasury Notes 1.5%	0.3%

	Stocks %	Rel Std Index
<div> <div></div> <div> 9. Cyclical Basic Materials </div> </div>	—	—
<div> <div></div> <div> 1. Defensive Consumer Goods </div> </div>	—	—
<div> <div></div> <div> 1. Defensive Healthcare </div> </div>	—	—
<div> <div></div> <div> 1. Defensive Technology </div> </div>	—	—
<div> <div></div> <div> 1. Defensive Financials </div> </div>	—	—
<div> <div></div> <div> 1. Defensive Energy </div> </div>	—	—
<div> <div></div> <div> 1. Defensive Industrials </div> </div>	—	—
<div> <div></div> <div> 1. Defensive Telecom </div> </div>	—	—
<div> <div></div> <div> 1. Defensive Real Estate </div> </div>	—	—
<div> <div></div> <div> 1. Defensive Utilities </div> </div>	—	—
<div> <div></div> <div> 1. Defensive Government </div> </div>	—	—
<div> <div></div> <div> 1. Defensive Other </div> </div>	—	—
<div> <div></div> <div> 1. Defensive Total </div> </div>	—	—

Rating	Yield	Industry	Market
AAA	7.036	Consumer Cyclical	—
AA	2.94	—	—
A	11.97	Financial Services	—
BBB	14.14	Real Estate	—
BB	0.00	—	—
		Sensitive	

	NR	Below B	B
Technology	-0.03	0.00	0.00
Industrials			
Energy			
Communication Services			

Regional Exposure	Stocks %	Rel. Std Index	Category	Defensive
Americas	—	—	Consumer	—
Greater Europe	—	—	Healthcare	—
Greater Asia	—	—	Utilities	—

Base Currency:	USD	Purchase Constraints:	—
Ticker:	VBTX	Incept:	09-18-1995
SIN:	US9219375048	Type:	MF
Minimum Initial Purchase:	\$5 mil	Total Assets:	\$88,063.28 mil

MCBRINGSTAR®

Voya Fixed Account – 457/401 II - State of Nevada

The Voya Fixed Account – 457/401 II is available through a group annuity or other type of contract issued by Voya Retirement Insurance and Annuity Company ("VRIAC" or the "Company"). The Voya Fixed Account – 457/401 II is an obligation of VRIAC's general account which supports all of the Company's insurance and annuity commitments. All guarantees are based on the financial strength and claims-paying ability of VRIAC, which is solely responsible for all obligations under its contracts.

Asset Class: **Stability of Principal**

Important Information

This information should be read in conjunction with your contract prospectus, contract disclosure booklet, summary or disclosure booklet, as applicable. Please read them carefully before investing.

Voya Retirement Insurance and Annuity Company

One Orange Way
Windsor, CT 06095-4774
www.voyaretirementplans.com

Objective

Stability of principal is the primary objective of this investment option. The Voya Fixed Account – 457/401 II guarantees minimum rates of interest and may credit interest that exceeds the guaranteed minimum rates. Daily credited interest becomes part of principal and the investment increases through compound interest. All amounts invested by your plan in the Voya Fixed Account – 457/401 II receive the same credited rate. This is known as a portfolio method of interest rate crediting.

Key Features

The Voya Fixed Account – 457/401 II is intended to be a long-term investment for participants seeking stability of principal. The assets supporting it are invested by VRIAC with this goal in mind. Therefore, VRIAC may impose restrictions on transfers and withdrawals involving the Voya Fixed Account – 457/401 II if Competing Investment Options (as defined below) are offered, or if you have a choice between multiple service providers. These restrictions help VRIAC to provide stable credited interest rates which historically have not varied significantly from month to month despite the general market's volatility in new money interest rates.

Restrictions on Transfers from the Voya Fixed Account – 457/401 II
Transfers from the Voya Fixed Account – 457/401 II will be subject to the equity wash restrictions shown below.

Equity Wash Restrictions on Transfers

Transfers between investment options are allowed at any time, subject to the following provisions:

- (a) Direct transfers from the Voya Fixed Account – 457/401 II cannot be made to a Competing Investment Option;
 - (b) A transfer from the Voya Fixed Account – 457/401 II to other investment options under the contract cannot be made if a transfer to a Competing Investment Option has taken place within 90 days;
 - (c) A transfer from the Voya Fixed Account – 457/401 II to other investment options under the contract cannot be made if a non-benefit withdrawal from a non-Competing Investment Option has taken place within 90 days; and
 - (d) A transfer from a non-Competing Investment Option to a Competing Investment Option cannot be made if a transfer from the Voya Fixed Account – 457/401 II has taken place within 90 days.
- Competing Investment Option**
As used throughout this document, a Competing Investment Option is defined as any investment option that:
- (a) Provides a direct or indirect investment performance guarantee;
 - (b) Is, or may be, invested primarily in assets other than common or preferred stock;
 - (c) Is, or may be, invested primarily in financial vehicles (such as mutual funds, trusts or insurance company contracts) which are invested in assets other than common or preferred stock;
 - (d) Is available through an account with a brokerage firm designated by the Company and made available by the Contract Holder (as defined in the contract) as an additional investment under the plan;
 - (e) Is a self-directed brokerage arrangement;
 - (f) Is any fund with similar characteristics to the above as reasonably determined by the Company; or

- (g) Is any fund with a targeted duration of less than three years (e.g. money market funds).

For more information regarding Competing Investment Options in your plan, please contact the Customer Contact Center at (800) 584-6001.

Requests for Full Withdrawals

Withdrawals from the Voya Fixed Account – 457/401 II are allowed to pay benefits to participants at any time.

However, if the plan, as the Contract Holder, requests a full withdrawal of all participant accounts held in the Voya Fixed Account – 457/401 II, VRIAC will pay amounts in the Voya Fixed Account – 457/401 II in one of the following two ways, as elected by the plan:

- (a) In equal annual principal payments, with interest, over a period not to exceed 60 months; or
- (b) At the completion of each 5-year period measured from the plan effective date (the "applicable anniversary date"), as a lump sum. Request for this option must be made in writing by the plan and received by us in our home office at least 12 months prior to the applicable anniversary date. Payout of all amounts held within the Voya Fixed Account – 457/401 II would then occur no later than the next applicable anniversary date. Full withdrawal requests at any other time would be subject to the provisions of option (a) above.

Interest Rate Structure

The Voya Fixed Account – 457/401 II guarantees principal and a guaranteed minimum interest rate ("GMIR") for the life of the contract, as well as featuring two declared interest rates: a current rate, determined at least monthly, and a guaranteed minimum floor rate declared for a defined period – currently one calendar year. The guaranteed minimum floor rate may change after a defined period, but it will never be lower than the GMIR that applies for the life of the contract. The current rate, the guaranteed minimum floor rate and the GMIR are expressed as annual effective yields. Taking the effect of compounding into account, the interest credited to your account daily yields the then current credited rate.

VRIAC's determination of credited interest rates reflects a number of

factors, which may include mortality and expense risks, interest rate guarantees, the investment income earned on invested assets and the amortization of any capital gains and/or losses realized on the sale of invested assets. Under this option, VRIAC assumes the risk of investment gain or loss by guaranteeing the principal amount you allocate to this option and promising a minimum interest rate during the accumulation period and also throughout the annuity payout period, if applicable.

Currently, the guaranteed minimum floor rate equals the GMIR. The current rate to be credited under a contract may be higher than the GMIR/guaranteed minimum floor rate and may be changed at any time, except that VRIAC will not apply a decrease to the current rate following a rate change initiated solely by us prior to the last day of the three-month period measured from the first day of the month in which such change was effective. The current rate for a plan's initial investment in the Voya Fixed Account – 457/401 II may be in effect for less than a full three-month period.

Credited Interest Rate

The Voya Fixed Account – 457/401 II will earn interest at a rate no less than 3.10% through December 31, 2021, and 3.00% through December 31, 2024.

The Voya Fixed Account – 457/401 II's GMIR for the life of the contract is 1.00%.

Any insurance products, annuities and funding agreements that you may have purchased are issued by Voya Retirement Insurance and Annuity Company ("VRIAC"). VRIAC is solely responsible for meeting its obligations. Plan administrative services provided by VRIAC or Voya Institutional Plan Services, LLC ("VIPS"). Neither VRIAC nor VIPS engage in the sale or solicitation of securities. If custodial or trust agreements are part of this arrangement, they may be provided by Voya Institutional Trust Company. All companies are members of the Voya® family of companies. Securities distributed by Voya Financial Partners, LLC (member SIPC) or other broker-dealers with which it has a selling agreement. All products or services may not be available in all states.

Voya Fixed Account – 457/401 II - State of Nevada - FICA

The Voya Fixed Account – 457/401 II is available through a group annuity or other type of contract issued by Voya Retirement Insurance and Annuity Company ("VRIAC" or the "Company"). The Voya Fixed Account – 457/401 II is an obligation of VRIAC's general account which supports all of the Company's insurance and annuity commitments. All guarantees are based on the financial strength and claims-paying ability of VRIAC, which is solely responsible for all obligations under its contracts.

Asset Class: **Stability of Principal**

Important Information

This information should be read in conjunction with your contract prospectus, contract prospectus summary or disclosure booklet, as applicable. Please read them carefully before investing.

Voya Retirement Insurance and Annuity Company

One Orange Way
Windsor, CT 06095-4774
www.voyaretirementplans.com

Objective

Stability of principal is the primary objective of this investment option. The Voya Fixed Account – 457/401 II guarantees minimum rates of interest and may credit interest that exceeds the guaranteed minimum rates. Daily credited interest becomes part of principal and the investment increases through compound interest. All amounts invested by your plan in the Voya Fixed Account – 457/401 II receive the same credited rate. This is known as a portfolio method of interest rate crediting.

Key Features

The Voya Fixed Account – 457/401 II is intended to be a long-term investment for participants seeking stability of principal. The assets supporting it are invested by VRIAC with this goal in mind. Therefore, VRIAC may impose restrictions on transfers and withdrawals involving the Voya Fixed Account – 457/401 II if Competing Investment Options (as defined below) are offered, or if you have a choice between multiple service providers. These restrictions help VRIAC to provide stable credited interest rates which historically have not varied significantly from month to month despite the general market's volatility in new money interest rates.

Restrictions on Transfers from the Voya Fixed Account – 457/401 II
Transfers from the Voya Fixed Account – 457/401 II will be subject to the equity wash restrictions shown below.

Equity Wash Restrictions on Transfers

Transfers between investment options are allowed at any time, subject to the following provisions:

- (a) Direct transfers from the Voya Fixed Account – 457/401 II cannot be made to a Competing Investment Option;
- (b) A transfer from the Voya Fixed Account – 457/401 II to other investment options under the contract cannot be made if a transfer to a Competing Investment Option has taken place within 90 days;
- (c) A transfer from the Voya Fixed Account – 457/401 II to other investment options under the contract cannot be made if a non-benefit withdrawal from a non-Competing Investment Option has taken place within 90 days; and
- (d) A transfer from a non-Competing Investment Option to a Competing Investment Option cannot be made if a transfer from the Voya Fixed Account – 457/401 II has taken place within 90 days.

Competing Investment Option

As used throughout this document, a Competing Investment Option is defined as any investment option that:

- (a) Provides a direct or indirect investment performance guarantee;
- (b) Is, or may be, invested primarily in assets other than common or preferred stock;
- (c) Is, or may be, invested primarily in financial vehicles (such as mutual funds, trusts or insurance company contracts) which are invested in assets other than common or preferred stock;
- (d) Is available through an account with a brokerage firm designated by the Company and made available by the Contract Holder (as defined in the contract) as an additional investment under the plan;
- (e) Is a self-directed brokerage arrangement;
- (f) Is any fund with similar characteristics to the above as reasonably determined by the Company; or

- (g) Is any fund with a targeted duration of less than three years (e.g. money market funds).

For more information regarding Competing Investment Options in your plan, please contact the Customer Contact Center at (800) 584-6001.

Requests for Full Withdrawals

Withdrawals from the Voya Fixed Account – 457/401 II are allowed to pay benefits to participants at any time. However, if the plan, as the Contract Holder, requests a full withdrawal of all participant accounts held in the Voya Fixed Account – 457/401 II, VRIAC will pay amounts in the Voya Fixed Account – 457/401 II in one of the following two ways, as elected by the plan:

- (a) In equal annual principal payments, with interest, over a period not to exceed 60 months; or
- (b) At the completion of each 5-year period measured from the plan effective date (the "applicable anniversary date"), as a lump sum. Request for this option must be made in writing by the plan and received by us in our home office at least 12 months prior to the applicable anniversary date. Payout of all amounts held within the Voya Fixed Account – 457/401 II would then occur no later than the next applicable anniversary date. Full withdrawal requests at any other time would be subject to the provisions of option (a) above.

Interest Rate Structure

The Voya Fixed Account – 457/401 II guarantees principal and a guaranteed minimum interest rate ("GMIR") for the life of the contract, as well as featuring two declared interest rates: a current rate, determined at least monthly, and a guaranteed minimum floor rate declared for a defined period – currently one calendar year. The guaranteed minimum floor rate may change after a defined period, but it will never be lower than the GMIR that applies for the life of the contract. The current rate, the guaranteed minimum floor rate and the GMIR are expressed as annual effective yields. Taking the effect of compounding into account, the interest credited to your account daily yields the then current credited rate.

VRIAC's determination of credited interest rates reflects a number of

factors, which may include mortality and expense risks, interest rate guarantees, the investment income earned on invested assets and the amortization of any capital gains and/or losses realized on the sale of invested assets. Under this option, VRIAC assumes the risk of investment gain or loss by guaranteeing the principal amount you allocate to this option and promising a minimum interest rate during the accumulation period and also throughout the annuity payout period, if applicable.

Currently, the guaranteed minimum floor rate equals the GMIR. The current rate to be credited under a contract may be higher than the GMIR/guaranteed minimum floor rate and may be changed at any time, except that VRIAC will not apply a decrease to the current rate following a rate change initiated solely by us prior to the last day of the three-month period measured from the first day of the month in which such change was effective. The current rate for a plan's initial investment in the Voya Fixed Account – 457/401 II may be in effect for less than a full three-month period.

Credited Interest Rate

The Voya Fixed Account – 457/401 II will earn interest at a rate no less than 2.25% through December 31, 2024.

The Voya Fixed Account – 457/401 II's GMIR for the life of the contract is 1.00%.

Any insurance products, annuities and funding agreements that you may have purchased are issued by Voya Retirement Insurance and Annuity Company ("VRIAC"). VRIAC is solely responsible for meeting its obligations. Plan administrative services provided by VRIAC or Voya Institutional Plan Services, LLC ("VIPS"). Neither VRIAC nor VIPS engage in the sale or solicitation of securities. If custodial or trust agreements are part of this arrangement, they may be provided by Voya Institutional Trust Company. All companies are members of the Voya® family of companies. Securities distributed by Voya Financial Partners, LLC (member SIPC) or other broker-dealers with which it has a selling agreement. All products or services may not be available in all states.

Standardized and Tax Adjusted Returns Disclosure Statement

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 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 visit <http://advisor.morningstar.com/familyinfo.asp>.

Standardized Returns assume reinvestment of dividends and capital gains. They depict performance without adjusting for the effects of taxation, but are adjusted to reflect sales charges and ongoing fund expenses.

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.

Money Market Fund Disclosures

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:

Institutional Money Market Funds (designated by an "S"):

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

Retail Money Market Funds (designated by an "L"):

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											
Standardized Returns (%)	7-day Yield Substidized as of date	7-day Yield Unsubstidized as of date	1Yr	5Yr	10Yr	Since Inception	Inception Date	Max Front Load %	Max Back Load %	Net Exp Ratio %	Gross Exp Ratio % Redemption %
American Funds Europacific Growth R6	—	—	-22.72	1.54	5.30	7.25	05-01-2009	NA	NA	0.46	0.46
MFS Value R4	—	—	-5.90	7.53	11.18	8.44	04-01-2005	NA	NA	0.55 ¹	0.56
Sterling Capital Total Return Bond R6	—	—	-13.15	—	—	0.71	02-01-2018	NA	NA	0.35 ²	0.46
T. Rowe Price Growth Stock I	—	—	-40.05	5.10	—	8.34	08-28-2015	NA	NA	0.51	0.51
Vanguard Extended Market Index InstPlus	—	—	-26.45	4.90	9.65	8.93	01-14-2011	NA	NA	0.04	0.04
Vanguard Institutional Index Instl Pl	—	—	-18.13	9.41	12.55	7.82	07-07-1997	NA	NA	0.02	0.02
Vanguard Mid-Cap Growth Index Admiral	—	—	-28.84	7.81	10.90	11.37	09-27-2011	NA	NA	0.07	0.07

©2023 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analysis and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analysis or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc., including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

Annualized returns 12-31-2022												
Standardized Returns (%)	7-day Yield 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 %
Vanguard Mid-Cap Value Index Admiral	—	—	-7.90	6.39	10.98	12.03	09-27-2011	NA	NA	0.07	0.07	NA
Vanguard Total Bond Market Index I	—	—	-13.15	0.01	1.02	4.22	09-18-1955	NA	NA	0.04	0.04	NA
Bloomberg US Agg Bond TR USD			-13.01	0.02	1.06	—	01-03-1980					
Bloomberg US Universal TR USD			-12.99	0.18	1.33	—	12-31-1998					
Morningstar Gbl xUS Growth TME NR USD			-21.72	—	—	—	11-24-2021					
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 LM Brd Val TR USD			-6.93	—	—	—	12-21-2020					
Morningstar US Mid Brd Grt TR USD			-25.83	—	—	—	12-21-2020					
Morningstar US Mid Brd Val TR USD			-6.57	—	—	—	12-21-2020					
Morningstar US SmI Brd Grt Ext TR USD			-26.74	—	—	—	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 EAFE NR USD			-14.45	1.54	4.67	—	03-31-1986					
Russell 1000 Growth TR USD			-29.14	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 Mid Cap Growth TR USD			-26.72	7.64	11.41	—	02-01-1995					
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			2.13	1.34	0.82	—	02-28-1941					

1. Contractual waiver, Expires 12-31-2023
2. Contractual waiver, Expires 01-31-2023

Return after Tax (%)	On Distribution					On Distribution and Sales of Shares				
	1Yr	5Yr	10Yr	Since Inception	Inception Date	1Yr	5Yr	10Yr	Since Inception	
American Funds Europacific Growth R6	-23.28	0.41	4.33	6.35	05-01-2009	-13.38	1.14	4.10	5.80	
MFS Value R4	-7.83	6.15	9.64	7.16	04-01-2005	-2.67	5.47	8.58	6.53	
Sterling Capital Total Return Bond R6	-14.14	—	—	-0.62	02-01-2018	-7.77	—	—	0.05	
T. Rowe Price Growth Stock I	-40.52	3.64	—	6.54	08-28-2015	-23.35	4.01	—	6.49	
Vanguard Extended Market Index InstlPlus	-26.66	4.51	9.19	8.50	01-14-2011	-15.52	3.75	7.78	7.26	
Vanguard Institutional Index Instl Pl	-18.76	8.51	11.73	7.22	07-07-1997	-10.27	7.38	10.29	6.56	
Vanguard Mid-Cap Growth Index Admiral	-28.97	7.62	10.66	11.13	09-27-2011	-16.98	6.12	8.97	9.47	
Vanguard Mid-Cap Value Index Admiral	-8.41	5.78	10.33	11.35	09-27-2011	-4.35	4.89	8.90	9.88	
Vanguard Total Bond Market Index I	-14.01	-1.00	-0.06	2.55	09-18-1995	-7.75	-0.37	0.33	2.61	

©2023 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc., including but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

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, publicly-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

©2023 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc., including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

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.

12b-1 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.)

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

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 adjusting 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/managedisclosures

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

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 as 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 categories 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

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 have betas greater than 1. The Sensitive 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

Shares 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

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.

HOLDRs: 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 HOLDR 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 HOLDR 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, HOLDRs, 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 HOLDRs 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

This index is composed of the BarCap Government/Credit Index, the Mortgage-Backed Securities Index, and the Asset-Backed Securities Index. The returns we publish for the index are total returns, which includes the daily reinvestment of dividends. Bloomberg Indexes and its associated data, Copyright © 2023 Bloomberg Index Services Limited. Bloomberg® is a trademark and service mark of Bloomberg Finance L.P. and its affiliates (collectively "Bloomberg"). Bloomberg or Bloomberg's licensors own all proprietary rights in the Bloomberg Indices. Bloomberg does not approve or endorse this material or guarantee the accuracy or completeness of any information herein, nor does Bloomberg make any warranty, express or implied, as to the results to be obtained therefrom and, to the maximum extent allowed by law, Bloomberg shall not have any liability or responsibility for injury or damages arising in connection therewith. The constituents displayed for this index are from the following proxy: iShares Core US Aggregate 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-

ERISA 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.

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

Morningstar US LM Brd Val TR USD

The index provides a comprehensive depiction of the performance and fundamental characteristics of the Large-Mid Cap Value segment of U.S. equity markets. It targets stocks representing the cheaper half of the U.S. 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 Mid Brd Val TR USD

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

Morningstar US SmI Brd Grt Ext TR USD

The index provides a comprehensive depiction of the performance and fundamental characteristics of the Small Growth segment of U.S. equity markets. It targets stocks representing the faster growing half of the U.S. small-cap market. 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 EAFE NR USD

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

This disclosure applies to all MSCI indices: Certain information included herein is derived by Morningstar in part from MSCI's Index Constituents (the "Index Data"). However, MSCI has not reviewed any information contained herein and does not endorse or express any opinion such information or analysis. MSCI does not make any express or implied warranties, representations or guarantees concerning the Index Data or any information or data derived therefrom, and in no event will MSCI have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) relating to any use of this information. The constituents displayed for this index are from the following proxy: Schwab International Index Fund®.

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 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 Value TR USD

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

Important Disclosures:

The material in this Report is not to be reproduced or distributed to any other persons (other than professional advisors of the investors) and is intended solely for the use of the persons to whom it has been delivered. This material is not for distribution to the general public.

This information is being provided as a service of your Hyas Group Consultant and does not supersede or replace your customer account statement provided by your custodian ("Custodial Statement"). Information in this Report may vary from the information in your Custodial Statement as a result of differences in accounting procedures, reporting dates, or valuation methodologies of certain securities. The market values reflected in this Report may vary slightly from the market values in your Custodial Statement. The information in this Report is as of the date(s) noted and subject to daily market fluctuation.

Sources of Information. Material in this Report has been obtained from sources that we believe to be reliable, but we do not guarantee its accuracy, completeness, or timeliness. The performance produced herein is calculated utilizing custodian data downloads and manually entered material. Although we take every precaution to ensure accuracy, we are not able to guarantee complete accuracy.

No Tax or Legal Advice. When Hyas Group, its affiliates and Hyas Group Consultants provide "investment advice" regarding a retirement or welfare benefit plan account, an individual retirement account or a Coverdell education savings account ("Retirement Account"), Hyas Group is a "fiduciary" as those terms are defined under the Employee Retirement Income Security Act of 1974, as amended ("ERISA"), and/or the Internal Revenue Code of 1986 (the "Code"), as applicable. When Hyas Group provides investment education or otherwise does not provide "investment advice", Hyas Group will not be considered a "fiduciary" under ERISA and/or the Code. Tax laws are complex and subject to change. Hyas Group does not provide tax or legal advice.

Key Asset Class Risk Disclosures. Investing involves market risk, including possible loss of principal. Please refer to Hyas Group's Form ADV Brochure for more information about the risks associated with certain investment products. The Hyas Group's Form ADV Brochure is available upon request.

ALL MUTUAL FUND PRODUCTS AND EXCHANGE-TRADED FUNDS ARE SOLD BY PROSPECTUS, WHICH CONTAINS MORE COMPLETE INFORMATION ABOUT A FUND, ITS EXPENSES AND MATERIAL RISKS RELATED TO THAT FUND'S INVESTMENT STRATEGY.

PLEASE CONTACT YOUR HYAS GROUP CONSULTANT FOR A COPY OF A FUND'S PROSPECTUS.

PLEASE READ THE PROSPECTUS AND CONSIDER THE FUND'S INVESTMENT OBJECTIVES, RISKS, CHARGES AND EXPENSES CAREFULLY BEFORE INVESTING. THE PROSPECTUS CONTAINS THIS AND OTHER IMPORTANT INFORMATION ABOUT THE FUND.

Performance. Performance results illustrated herein do not reflect a deduction of any investment advisory fees charged by Hyas Group or any investment manager but do include the fund's internal expenses. Performance results are annualized for time periods greater than one year and include all cash and cash equivalents, realized and unrealized capital gains and losses, and dividends, interest, and income. The investment results depicted herein represent historical performance. As a result of recent market activity, current performance may vary from the figures shown. Past performance is not a guarantee of future results.

The underlying fund's internal expenses (also known as the expense ratio) generally covers investment management fees, marketing, and distribution fees (also known as 12b-1 fees) and other operating expenses of the fund. The expense ratios being displayed for mutual funds reflect each fund's prospectus "net" expenses as provided by Morningstar. Such "net" expenses are subject to change and may increase at any time.

To learn more about the Hyas Group advisory services, please see the Hyas Group ADV Brochure for more information. It is available from your Hyas Group Consultant.

Performance data quoted is historical. Past performance does not guarantee future results. Current performance may be higher or lower than the performance quoted. You can obtain performance data current to the most recent month-end for each fund by visiting the fund company website. The investment return and principal value of an investment will fluctuate such that an investor's shares, when redeemed, may be worth more or less than their original cost. Total returns include reinvestment of dividends and capital gains and are net of all fund fees and expenses.

Performance figures are based on Net Asset Value (NAV) within a qualified retirement plan. If an individual were to purchase shares outside of a qualified plan, they would likely be subject to all, or a portion of, any applicable sales charges. These charges would lower the performance indicated above.

The returns on a portfolio consisting primarily of Environmental, Social and Governance ("ESG") aware investments may be lower or higher than a portfolio that is more diversified or where decisions are based solely on investment considerations. Because ESG criteria exclude some investments, investors may not be able to take advantage of the same opportunities or market trends as investors that do not use such criteria. Diversification does not guarantee a profit or protect against loss in a declining financial market.

Each fund's performance may, from time to time, have been affected significantly by material market and economic conditions, including interest rates, market trends, and general business and economic cycles, which may or may not be repeated in the future. Also, keep in mind that any double-digit returns are highly unusual and cannot be sustained. Such returns are primarily achieved during favorable market conditions.

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. Index returns include the reinvestment of all dividends, but do not reflect the payment of transaction costs, advisory fees or expenses that are associated with an investment. The indices selected by Hyas Group to measure performance are representative of broad asset classes. Hyas Group retains the right to change representative indices at any time. Performance of indices may be more or less volatile than any investment product. The risk of loss in value of a specific investment is not the same as the risk of loss in a broad market index. Therefore, the historical returns of an index will not be the same as the historical returns of a particular investment a client selects. Past performance does not guarantee future results.

The "Investment Policy Statement Compliance Report" indicates funds that are on the Plan's Watch List, as based on investment monitoring criteria which is provided to Hyas Group by the plan sponsor. The plan sponsor should inform its Hyas Group Consultant of any changes to the plan's investment policy.

Fund data provided by Morningstar.

Peer Groups. Peer Groups are a collection of similar investment strategies that essentially group investment products that share the same investment approach. Peer Groups are used for comparison purposes to compare and illustrate a client's investment portfolio versus its peer across various quantitative metrics like performance and risk. Peer Group comparison is conceptually another form of benchmark comparison whereby the actual investment can be ranked versus its peer across various quantitative metrics.

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.

Hyas Group, a business of Morgan Stanley. © Morgan Stanley, 2023.