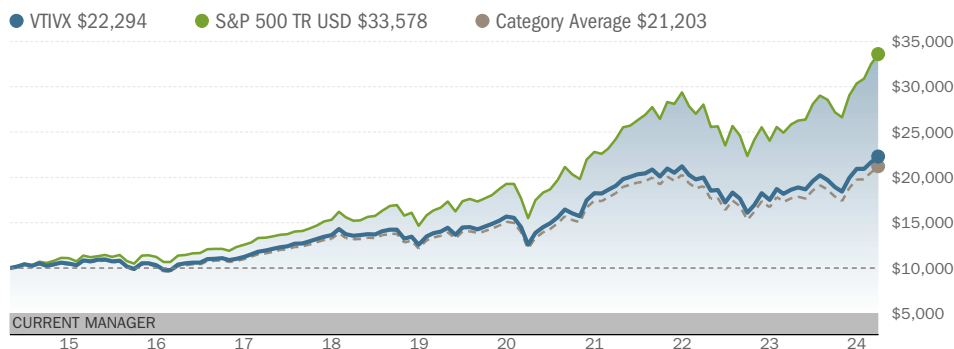


Vanguard Target Retirement 2045 Fund VTIVX

GROWTH OF A HYPOTHETICAL \$10,000 INVESTMENT

as of 3/31/2024

This fund has multiple managers, view VTIVX quote page for complete information.



This graph represents the growth of a hypothetical investment of \$10,000. It assumes reinvestment of dividends and capital gains, and does not reflect sales loads, redemption fees or the effects of taxes on any capital gains and/or distributions.

CATEGORY: TARGET-DATE 2045

Morningstar Category: Target-date portfolios provide diversified exposure to stocks, bonds, and cash for those investors who have a specific date in mind (in this case, the years 2041-2045) for retirement. These portfolios aim to provide investors with an optimal level of return and risk, based solely on the target date. Management adjusts the allocation among asset classes to more-conservative mixes as the target date approaches, following a preset glide path. A target-date portfolio is part of a series of funds offering multiple retirement dates to investors.

PERFORMANCE RETURNS ^{1,2}

This section contrasts VTIVX to its benchmarks.

Monthly data as of 03/31/2024

	Cumulative Returns %			Annualized Returns %		
	YTD	3 MO	1 YR	5 YR	10 YR	SINCE INCEP.
● Vanguard Target Retirement 2045 Fund	+6.45	+6.45	+19.45	+9.74	+8.40	+8.20
● Category Average	+6.64	+6.64	+19.45	+9.46	+7.96	-
● S&P 500 TR USD	+10.56	+10.56	+29.88	+15.05	+12.96	-

RANK WITHIN CATEGORY FOR ANNUAL TOTAL RETURN %

as of 03/31/2024

Rank within Category compares this fund's total annual return to that of other funds in the same category, and its figures are not adjusted for load, sales charge, or taxes.

	YTD	2023	2022	2021	2020	2019
TOP 25%						
BOTTOM 25%						
RETURN %	6.45	19.48	-17.36	16.16	16.30	24.94

¹ Numbers are adjusted for possible sales, charges, and assume reinvestment of dividends and capital gains over each time period.

² Index figures do not reflect deductions for fees or expenses

Data and rankings provided by Morningstar. Morningstar proprietary ratings reflect historical risk-adjusted performance as of 03/31/24. These ratings are subject to change every month. For each fund with at least a three-year history, Morningstar calculates a Morningstar Rating™ based on a Morningstar Risk-Adjusted Return measure that accounts for variation in a fund's monthly performance (including the effects of sales charges, loads and redemption fees), placing more emphasis on downward variations and rewarding consistent performance. (Each share class is counted as a fraction of one fund within this scale and rated separately, which may cause slight variations in the distribution percentages.) The top 10% of the funds in an investment category receive 5 stars, 22.5% receive 4 stars, 35% receive 3 stars, the next 22.5% receive 2 stars, and the bottom 10% receive 1 star. The overall Morningstar Rating is a weighted average of the funds' three-, five-, and 10-year (if applicable) Morningstar rating metrics. To contact Morningstar, Inc. call 1-800-735-0700.

One or more investments in your plan may be subject to a Contingent Redemption Fee. In addition, some mutual fund companies have strict policies on excessive trading and expressly prohibit transactions deemed detrimental to long-term shareholders of the fund. Investors should consider carefully information contained in the prospectus, including investment objectives, risks, trading restrictions, charges and expenses. You can request a prospectus by calling Schwab at 1-800-435-4000. You may also request a prospectus at www.schwab.com/workplace. Please read the prospectus carefully before investing.

Performance data quoted represents past performance and does not indicate future results. Visit www.schwab.com/workplace for month-end performance information. Current performance may be lower or higher. Investment value will fluctuate, and shares when redeemed, may be worth more or less than original cost. Please visit <http://www.schwab.com/workplace> for more recent performance information.

FUND PROFILE

as of 03/31/24

Available at Schwab	Yes
Inception Date	10/27/2003
Status	Open
Category	Target-Date 2045
Index Fund	No
Fund Company	Vanguard
Portfolio Turnover	1%

MORNINGSTAR RATINGS

as of 03/31/24

Overall rating	OUT OF 190 FUNDS
★ ★ ★ ★ ★	
3 year rating	OUT OF 190 FUNDS
★ ★ ★ ★ ★	
5 year rating	OUT OF 170 FUNDS
★ ★ ★ ★ ★	
10 year rating	OUT OF 104 FUNDS
★ ★ ★ ★ ★	

Historical Return
AVERAGE
RETURN

Historical Risk
BELOW AVERAGE
RISK

The ratings reflect historical risk-adjusted performance and the overall Morningstar Rating™ is derived from a weighted average of the performance figures associated with fund's 3, 5, and 10 year rating metrics.

QUARTERLY AVERAGE ANNUAL TOTAL RETURN

as of 03/31/2024

1 Year	19.45%	10 Years	8.40%
5 Years	9.74%	Since Incep.	8.20%

Numbers are adjusted for possible sales charges, and assume reinvestment of dividends & capital gains over each time period.

EXPENSES

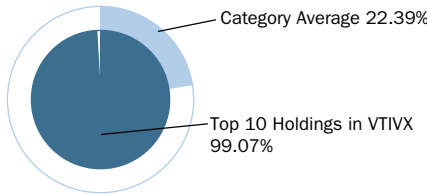
Gross Expense Ratio (before waivers)	0.08%
Net Expense Ratio (after waivers)	0.08%
Category Average Expense Ratio	0.70%
12b-1 Fees	None
Max Front Load	None
Max Back Load	None
Redemption Fee	NA

A net expense ratio lower than the gross expense ratio may reflect a cap on or contractual waiver of fund expenses. Please read the fund prospectus for details on limits or expiration dates for any such waivers.

Vanguard Target Retirement 2045 Fund VTIVX

TOP HOLDINGS

as of 03/31/2024



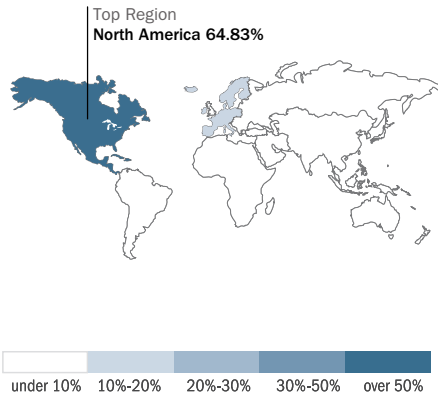
Top 10 holdings are 99.07% of the total portfolio assets. The category average percent of Portfolio in top 10 holdings is 22.39%

SYMBOL	COMPANY NAME	SECTOR	PERCENT OF ASSETS
VSMPX	Vanguard Total Stock Mkt ..	—	51.69%
VGTSX	Vanguard Total Intl Stock I..	—	32.31%
VTBIX	Vanguard Total Bond Mark..	—	10.41%
VTILX	Vanguard Total Intl Bd II Id..	—	4.66%

Fund holdings subject to change

REGIONAL EXPOSURE

as of 03/31/2024



Regional Breakdown

North America	64.83%
Europe Developed (excluding UK)	11.83%
Japan	6.26%
Asia Emerging	5.36%
Asia Developed (excluding Japan)	4.01%
United Kingdom	3.33%
Australasia	1.91%
Africa/Middle East	1.24%
Latin America	.96%
Europe Emerging	.27%

Top 5 Countries

United States	62.57%
Japan	5.99%
United Kingdom	3.31%
Canada	2.70%
France	2.64%

SECTOR WEIGHTINGS

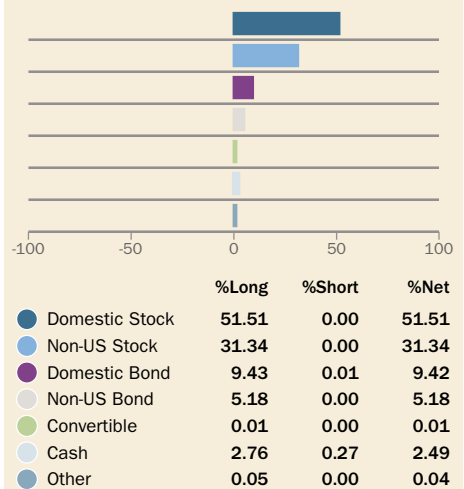
as of 03/31/2024

Information Technology	22.26%
Financials	16.14%
Industrials	12.09%
Health Care	11.02%
Consumer Discretionary	11.01%
Telecommunication Services	6.91%
Consumer Staples	6.13%
Materials	4.59%
Energy	4.54%
Utilities	2.50%



ASSET BREAKDOWN

as of 03/31/24

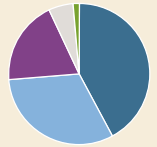


Non-US assets include assets without a specific country classification.

MARKET CAPITALIZATION

as of 03/31/2024

Giant Cap	42.21%
Large Cap	31.60%
Medium Cap	19.23%
Small Cap	5.50%
Micro Cap	1.47%



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Government bond fund shares are not guaranteed. Their price and investment return will fluctuate with market conditions and interest rates. Investment income from municipal bond funds may be subject to certain state and local taxes and the federal alternative minimum tax. Capital gains are not exempt from federal income tax.

International investing involves special risks such as currency fluctuation and political instability. Investing in emerging markets may accentuate these risks. Small cap funds are subject to greater volatility than those in other asset categories. Due to the limited focus of sector funds, they may experience greater volatility than funds with a broader investment strategy.

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