

Information About Investment Proposal Tools

This information is provided to help you understand the investment proposal, report, or analysis you received from your LPL financial professional.

What is an investment proposal tool?

An investment proposal tool is an interactive tool that generates potential investment strategies or portfolios and helps you and your financial professional analyze those strategies and make investment decisions. The tool uses information that you and your financial professional input into it, including your assets, your risk tolerance, your investment timeline, and other information. Based on your inputs and on simulations and statistical analyses about investments, the tool projects the likelihood of various investment outcomes over different time periods and market environments. The tool is designed to help you and your financial professional decide on an investment strategy, a specific portfolio, or a specific financial product (like a stock, mutual fund, or exchange-traded fund). The tool generates a customized report that you should discuss with your financial professional.

Will I achieve the same investment results as the proposal tool's report?

No. An investment proposal tool is not a guarantee of any specific returns, but is instead designed to show a statistical simulation using mathematical models of the likelihood of different investment outcomes. Results shown by a report will vary – potentially with each use and over time – because of different market conditions and changes in investment variables. The use of a proposal tool alone cannot determine the investments you should make. All investing carries the risk of loss, including the risk of a loss of your entire investment.

Important: The projections or other information generated by an investment analysis tool regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results.

What is “hypothetical performance,” and why is it important?

Simulating or calculating how a proposed portfolio of investments would have performed in the past or may perform in the future is hypothetical when it's not based on an actual funded portfolio, and the results weren't actually achieved. Projected performance cannot accurately predict future market conditions or resulting performance. Hypothetical past performance

illustrations are created with the benefit of hindsight and can be manipulated by choosing investments with better performance, even if your financial professional was not recommending those investments at that time. Hypothetical performance does not reflect actual investment results and does not assure or guarantee future results. Because hypothetical results were not actually achieved by any client account, those results are not an indication of the ability or skill of your financial professional. Because of the inherent inability to predict future returns and the limitations on hypothetical past performance, you should not rely on any presentation of hypothetical performance as the primary basis for your investment decisions.

What should I ask my financial professional?

- What assumptions and limitations are involved in the investment proposal tool we are using?
- What inputs and data about my financial situation did we include in the tool? How did those affect the outcomes?
- What investments are considered in the overall analysis? Why did the tool suggest the investments in the report it generated?
- Does my report contain substitute or backfilled holdings?
- Is the benchmark used to compare holdings the right choice for this report? How would the returns look against a different benchmark?

For more information

To learn more about investing risks, please visit: lpl.com/InvestmentRiskLibrary

Where can I learn more?

Visit lpl.com/disclosures.html and scroll to the Investor Regulatory & Educational Resources section, or visit the SEC's website at Investor.gov. You should also carefully review LPL's Form ADV Brochure for your advisory program, and ask your financial professional any questions you may have.

INFORMATION ABOUT INVESTMENT PROPOSAL TOOLS

How does a proposal tool generate projections?

Most proposal tools use Monte Carlo analysis to run thousands of simulations that produce predicted future investment results based on statistical methodologies and probability distributions. Although a Monte Carlo simulation is a widely accepted methodology for making predictions, there is no guarantee that the predicted performance will be achieved.

Performance predictions are dependent upon the accuracy of the data and information you input into the tool. Predictions are also based on a series of assumptions that will not be true for an actual investment account. For example, the fees and expenses reflected in a proposal are different than fees actually charged. Predictions also assume that you will hold the proposed investments over the entire period shown, will not withdraw or add assets, and will not make different investments.

Other assumptions used will be specific to a particular proposal tool. You should understand the methodology and assumptions used by the tool, including the types of investments considered by the tool and whether the tool favors any types of investments.

How does a proposal tool generate hypothetical past performance?

Proposal tools typically generate hypothetical past performance by calculating the aggregate historical performance of the individual investments in the proposed portfolio. The tool calculates net performance using an investment advisory fee equal to either the fee for your proposed account or the

highest fee that LPL charges in its advisory program, but the proposal does not reflect all of the expenses that will be charged to your account and that would reduce your performance returns.

Some tools use "substitute" performance for investments that do not have a performance history over a report's entire period. For example, if a tool includes a mutual fund that has been in existence for only five years in a report showing ten years of performance history, the tool may substitute another mutual fund or an investment index or benchmark for the first five years. Substituted performance is an additional layer of hypothetical information that will further reduce the accuracy of the projected results. Substituted holdings should be considered approximations for illustrative purposes only. Because you cannot invest directly in an index, and index returns do not reflect fees and expenses of an actual investment product like a mutual fund, hypothetical past performance using a substitute is overstated.

In addition, most tools will compare investment results to a benchmark, often a securities index. Discretion to choose which benchmark a proposal report is compared against can make investment returns of a proposal report look comparatively more favorable.

How do fees affect an investment proposal?

The report's returns may not include all fees and expenses that would reduce the performance of an actual account, including, but not limited to, advisory fees, manager fees, and/or transaction charges (if applicable); taxes;

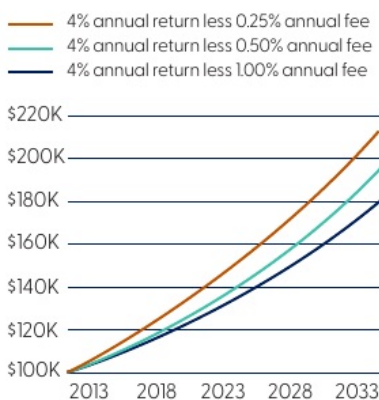
and other miscellaneous fees and expenses you may incur. Fees differ between LPL's advisory programs. Please visit lpl.com for more information, including a copy of the Account Packet and Form ADV Brochure for the program you are considering, as well as the applicable Miscellaneous Account and Service Fees Schedule.

Fees and expenses reduce your investment returns. The effects of fees on your long-term investment returns are compounding, meaning higher fees will cause you to earn relatively less on your investment over time. Below is a sample graph showing the compounding effect of fees.

Portfolio value from investing \$100,000 over 20 years

In 20 years, 0.50% annual fees reduce the portfolio (green line) by \$10,000 compared with a portfolio with a 0.25% annual fee (copper line).

In 20 years, 1.00% annual fees reduce the portfolio (blue line) by nearly \$30,000 compared with a portfolio with a 0.25% annual fee (copper line).



Source: investor.gov/introduction-investing/getting-started/understanding-fees

Securities and advisory services offered through LPL Financial LLC or LPL Enterprise, LLC, affiliated registered investment advisers/broker-dealers (members FINRA/SIPC), collectively referred to herein as "LPL." Please consult the Relationship Summary you received or your financial professional to confirm the LPL affiliate providing services to you.

Vanguard Target Retirement 2030 vs. Vanguard Target Retirement 2050 LPL Reviewed Template - Comprehensive Comparison Report

Prepared for YCharts by LPL Admin at LPL
May 20, 2025

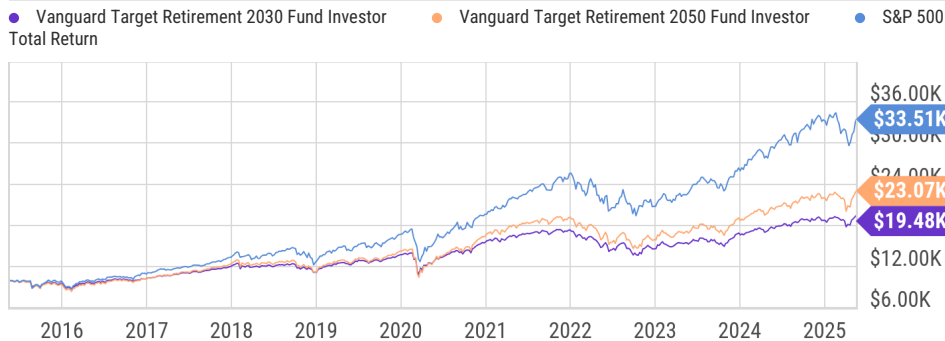
**For more information,
contact 1234567890, lpl@ycharts.com, or visit lpl.com**

2025 YCharts, Inc. All Rights Reserved. YCharts, Inc. ("YCharts") is not registered with the U.S. Securities and Exchange Commission (or with the securities regulatory authority or body of any state or any other jurisdiction) as an investment adviser, broker-dealer or in any other capacity, and does not purport to provide investment advice or make investment recommendations. This report has been generated using data manually input by the creator of this report combined with data and calculations from YCharts.com and is intended solely to assist you or your investment or other adviser(s) in conducting investment research. You should not construe this report as an offer to buy or sell, as a solicitation of an offer to buy or sell, or as a recommendation to buy, sell, hold or trade, any security or other financial instrument. THE IMPORTANT DISCLOSURES FOUND AT THE END OF THIS REPORT (WHICH INCLUDE DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT) ARE AN INTEGRAL PART OF THIS REPORT AND MUST BE READ IN CONJUNCTION WITH YOUR REVIEW OF THIS REPORT. For further information regarding your use of this report, please go to: <https://get.ycharts.com/disclosure/>

Vanguard Target Retirement 2030 vs. Vanguard Target Retirement 2050 LPL Reviewed Template - Comprehensive Comparison Report

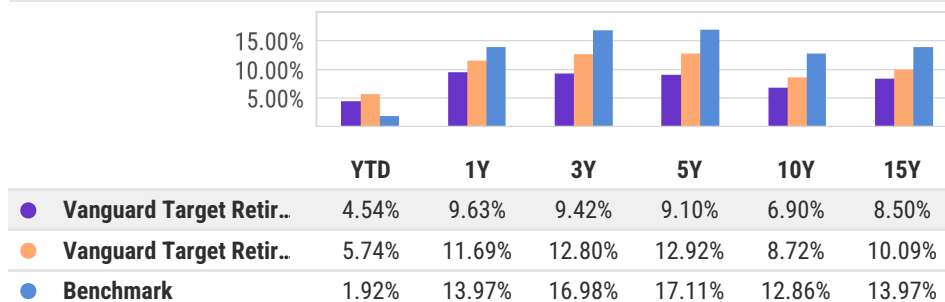
Cumulative Return

May 19, 2015 through May 19, 2025



Periodic Return

Data as of: May 19, 2025



Basic Info

● Vanguard Target Retirement 2030 Fund...	
Ticker	VTHRX
● Vanguard Target Retirement 2050 Fund...	
Ticker	VFIFX
● Benchmark	S&P 500 Total Return*

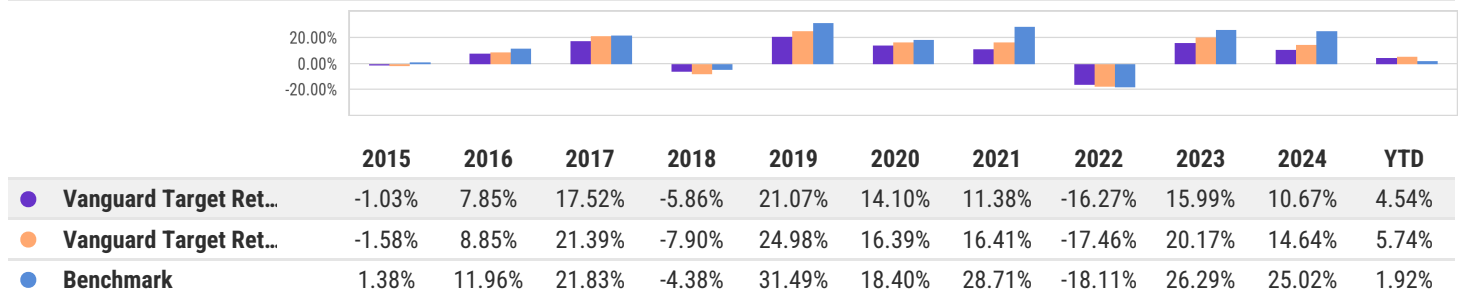
*Benchmark information defined in disclosure section.

Key Stats

	Sec. A	Sec. B	B.Mark
Net Expense Ratio	0.08%	0.08%	--
Dividend Yield	2.62%	2.07%	--
Max Drawdown 5Y	22.74%	25.40%	24.49%
Alpha (5Y)	1.40	0.70	--
Beta (5Y)	0.94	0.96	--
Up/Down Ratio 5Y	0.8874	0.9376	--

Annual Return

Data as of: May 19, 2025



The performance data quoted presents past performance; past performance does not guarantee future results; the investment return and principal value of an investment will fluctuate; an investor's shares, when redeemed, may be worth more or less than their original cost; current performance may be lower or higher than the performance data quoted. The most recent month end performance data can be accessed at https://go.ycharts.com/fund_contact_info. (See the Standardized Returns section of this report for standardized returns information).

2025 YCharts, Inc. All Rights Reserved. YCharts, Inc. ("YCharts") is not registered with the U.S. Securities and Exchange Commission (or with the securities regulatory authority or body of any state or any other jurisdiction) as an investment adviser, broker-dealer or in any other capacity, and does not purport to provide investment advice or make investment recommendations. This report has been generated using data manually input by the creator of this report combined with data and calculations from YCharts.com and is intended solely to assist you or your investment or other adviser(s) in conducting investment research. You should not construe this report as an offer to buy or sell, as a solicitation of an offer to buy or sell, or as a recommendation to buy, sell, hold or trade, any security or other financial instrument. THE IMPORTANT DISCLOSURES FOUND AT THE END OF THIS REPORT (WHICH INCLUDE DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT) ARE AN INTEGRAL PART OF THIS REPORT AND MUST BE READ IN CONJUNCTION WITH YOUR REVIEW OF THIS REPORT. For further information regarding your use of this report, please go to: <https://get.ycharts.com/disclosure/>

Standardized Returns Net of Max Fee
Data as of: Mar 31, 2025

Symbol	Name	Annlzd 1Y Total Ret Net of Max Fee (M)	Annlzd 3Y Total Ret Net of Max Fee (M)	Annlzd 5Y Total Ret Net of Max Fee (M)	Annlzd 10Y Total Ret Net of Max Fee (M)	Annlzd Total Rtns Since Incep Net of Max Fee (M)
VTHRX	Vanguard Target Retirement 2030 Fund I...	--	--	--	--	--
VFIFX	Vanguard Target Retirement 2050 Fund I...	--	--	--	--	--

Standardized Returns Net of Proposed Fee
Data as of: Mar 31, 2025

Symbol	Name	Annlzd 1Y TR (M)	Annlzd 3Y TR (M)	Annlzd 5Y TR (M)	Annlzd 10Y TR (M)	Annlzd Total Rtns Since Incepti. (M)
VTHRX	Vanguard Target Retirement 2030 Fund I...	6.03%	4.51%	9.94%	6.70%	6.72%
VFIFX	Vanguard Target Retirement 2050 Fund I...	6.65%	6.22%	13.84%	8.40%	7.77%

The performance data quoted presents past performance; past performance does not guarantee future results; the investment return and principal value of an investment will fluctuate; an investor's shares, when redeemed, may be worth more or less than their original cost; current performance may be lower or higher than the performance data quoted. The most recent month end performance data can be accessed at https://go.ycharts.com/fund_contact_info. (See the Standardized Returns section of this report for standardized returns information).

2025 YCharts, Inc. All Rights Reserved. YCharts, Inc. ("YCharts") is not registered with the U.S. Securities and Exchange Commission (or with the securities regulatory authority or body of any state or any other jurisdiction) as an investment adviser, broker-dealer or in any other capacity, and does not purport to provide investment advice or make investment recommendations. This report has been generated using data manually input by the creator of this report combined with data and calculations from YCharts.com and is intended solely to assist you or your investment or other adviser(s) in conducting investment research. You should not construe this report as an offer to buy or sell, as a solicitation of an offer to buy or sell, or as a recommendation to buy, sell, hold or trade, any security or other financial instrument. THE IMPORTANT DISCLOSURES FOUND AT THE END OF THIS REPORT (WHICH INCLUDE DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT) ARE AN INTEGRAL PART OF THIS REPORT AND MUST BE READ IN CONJUNCTION WITH YOUR REVIEW OF THIS REPORT. For further information regarding your use of this report, please go to: <https://get.ycharts.com/disclosure/>

Performance Disclosure

THIS REPORT IS NOT AN INVESTMENT PERFORMANCE REPORT. DO NOT RELY ON THIS REPORT AS PORTRAYING, OR CONTAINING PERFORMANCE OF, AN ACTUAL ACCOUNT. THIS REPORT SHOWS HYPOTHETICAL OR SIMULATED RETURNS OF PORTFOLIO(S) AND IS FOR ILLUSTRATIVE PURPOSES ONLY. This report is not intended to and does not predict or show the actual investment performance of any account. A portfolio represents an investment in a hypothetical weighted blend of securities which, together with other inputs, were selected by you and/or your Adviser and, accordingly, a portfolio should be used for illustrative purposes only.

Fundamentals

Data as of: March 31, 2025

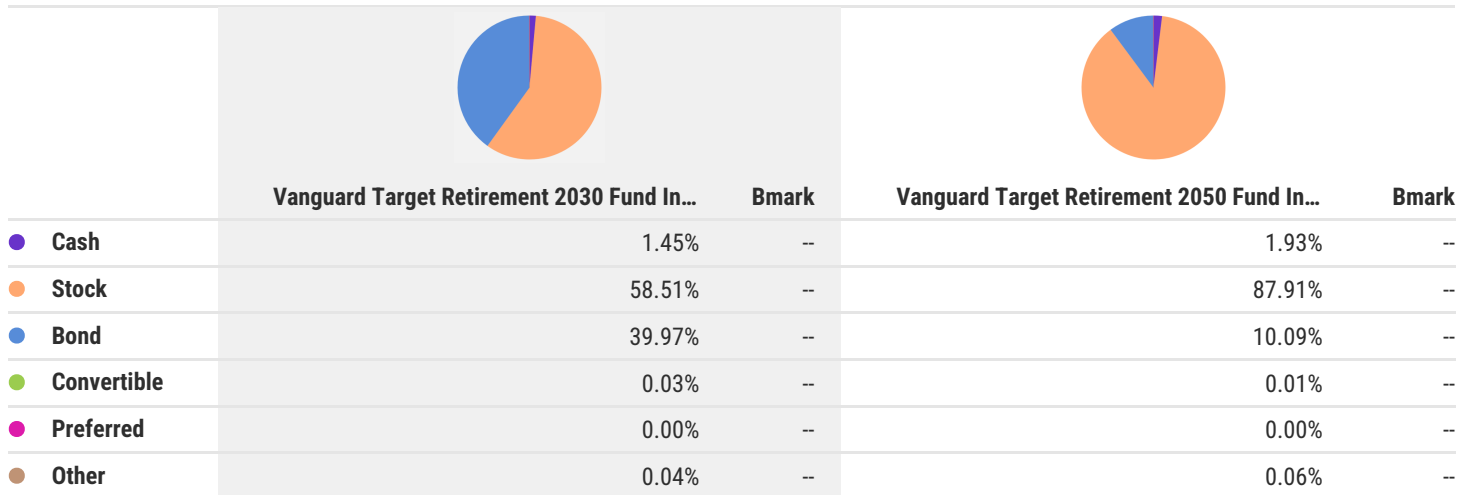
General	Vanguard Target Retirement 203...	Vanguard Target Retirement 205...	Benchmark
Dividend Yield (TTM)	2.62%	2.07%	--
Distribution Yield (TTM)	3.48%	2.10%	--
Expense Ratio	0.08%	0.08%	--
Number of Holdings	6	6	--
Stock			
Weighted Average PE Ratio	19.57	19.51	--
Weighted Average Price to Sales Ratio	1.934	1.925	--
Weighted Average Price to Book Ratio	2.575	2.560	--
Weighted Median ROE	24.88%	24.78%	--
Weighted Median ROA	10.54%	10.49%	--
Avg. Market Cap	96.98B	95.86B	--
Weighed Avg. Debt to Capital	36.11	36.08	--
Number of Stock Holdings	0	0	--
Bond			
Current Yield	3.49%	3.48%	--
Yield to Maturity	4.70%	4.70%	--
Effective Duration	6.187	6.196	--
Average Coupon	3.37%	3.36%	--
Average Credit Score	6.00	6.00	--
Average Price	93.64	--	--
Number of Bond Holdings	0	0	--

The performance data quoted presents past performance; past performance does not guarantee future results; the investment return and principal value of an investment will fluctuate; an investor's shares, when redeemed, may be worth more or less than their original cost; current performance may be lower or higher than the performance data quoted. The most recent month end performance data can be accessed at https://go.ycharts.com/fund_contact_info. (See the Standardized Returns section of this report for standardized returns information).

2025 YCharts, Inc. All Rights Reserved. YCharts, Inc. ("YCharts") is not registered with the U.S. Securities and Exchange Commission (or with the securities regulatory authority or body of any state or any other jurisdiction) as an investment adviser, broker-dealer or in any other capacity, and does not purport to provide investment advice or make investment recommendations. This report has been generated using data manually input by the creator of this report combined with data and calculations from YCharts.com and is intended solely to assist you or your investment or other adviser(s) in conducting investment research. You should not construe this report as an offer to buy or sell, as a solicitation of an offer to buy or sell, or as a recommendation to buy, sell, hold or trade, any security or other financial instrument. THE IMPORTANT DISCLOSURES FOUND AT THE END OF THIS REPORT (WHICH INCLUDE DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT) ARE AN INTEGRAL PART OF THIS REPORT AND MUST BE READ IN CONJUNCTION WITH YOUR REVIEW OF THIS REPORT. For further information regarding your use of this report, please go to: <https://get.ycharts.com/disclosure/>

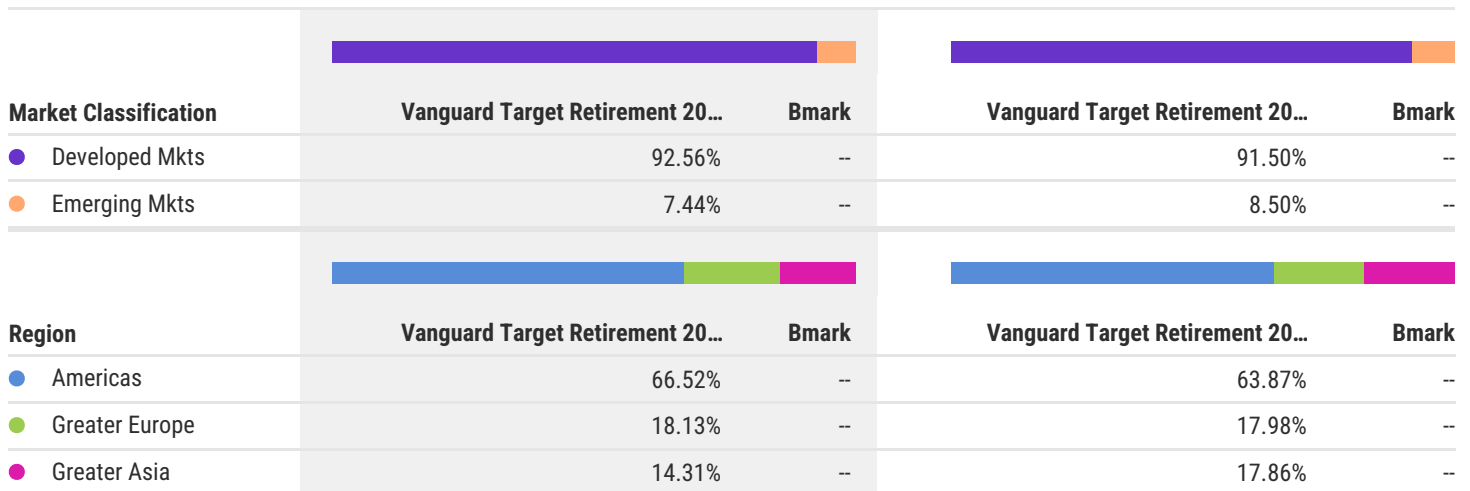
Asset Allocation

Data as of: March 31, 2025



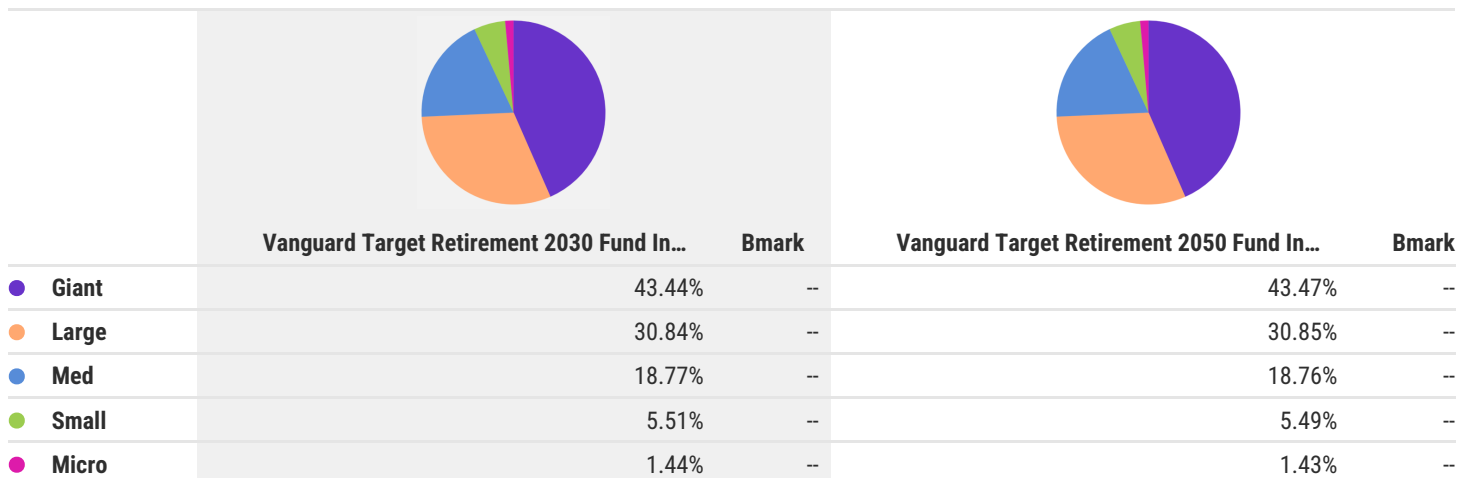
Region Exposure

Data as of: March 31, 2025



Market Capitalization

Data as of: March 31, 2025



2025 YCharts, Inc. All Rights Reserved. YCharts, Inc. ("YCharts") is not registered with the U.S. Securities and Exchange Commission (or with the securities regulatory authority or body of any state or any other jurisdiction) as an investment adviser, broker-dealer or in any other capacity, and does not purport to provide investment advice or make investment recommendations. This report has been generated using data manually input by the creator of this report combined with data and calculations from YCharts.com and is intended solely to assist you or your investment or other adviser(s) in conducting investment research. You should not construe this report as an offer to buy or sell, as a solicitation of an offer to buy or sell, or as a recommendation to buy, sell, hold or trade, any security or other financial instrument. THE IMPORTANT DISCLOSURES FOUND AT THE END OF THIS REPORT (WHICH INCLUDE DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT) ARE AN INTEGRAL PART OF THIS REPORT AND MUST BE READ IN CONJUNCTION WITH YOUR REVIEW OF THIS REPORT. For further information regarding your use of this report, please go to: <https://get.ycharts.com/disclosure/>

Stock Style Exposure

Data as of: March 31, 2025

Style	Lg Cap Value	Lg Cap Blend	Lg Cap Growth	Mid Cap Value	Mid Cap Blend	Mid Cap Growth	Sm Cap Value	Sm Cap Blend	Sm Cap Growth
Vanguard Target Retirement 2030 Fund Investor	19.74%	34.02%	20.58%	5.54%	8.17%	5.05%	2.33%	2.77%	1.80%
Vanguard Target Retirement 2050 Fund Investor	19.77%	33.96%	20.64%	5.54%	8.16%	5.05%	2.32%	2.76%	1.79%
Benchmark	--	--	--	--	--	--	--	--	--

Stock Sector Exposure



Data as of: March 31, 2025

	Vanguard Target Retirement 20...	Bmark	Vanguard Target Retirement 20...	Bmark
Cyclical	35.19%	--	35.27%	--
Basic Materials	3.92%	--	3.96%	--
Consumer Cyclical	10.54%	--	10.54%	--
Financial Services	17.82%	--	17.88%	--
Real Estate	2.90%	--	2.90%	--
Sensitive	45.73%	--	45.65%	--
Comm. Services	7.47%	--	7.45%	--
Energy	4.20%	--	4.21%	--
Industrials	11.28%	--	11.33%	--
Technology	22.78%	--	22.67%	--
Defensive	19.08%	--	19.07%	--
Consumer Defensive	6.00%	--	6.00%	--
HealthCare	10.30%	--	10.28%	--
Utilities	2.79%	--	2.79%	--

2025 YCharts, Inc. All Rights Reserved. YCharts, Inc. ("YCharts") is not registered with the U.S. Securities and Exchange Commission (or with the securities regulatory authority or body of any state or any other jurisdiction) as an investment adviser, broker-dealer or in any other capacity, and does not purport to provide investment advice or make investment recommendations. This report has been generated using data manually input by the creator of this report combined with data and calculations from YCharts.com and is intended solely to assist you or your investment or other adviser(s) in conducting investment research. You should not construe this report as an offer to buy or sell, as a solicitation of an offer to buy or sell, or as a recommendation to buy, sell, hold or trade, any security or other financial instrument. THE IMPORTANT DISCLOSURES FOUND AT THE END OF THIS REPORT (WHICH INCLUDE DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT) ARE AN INTEGRAL PART OF THIS REPORT AND MUST BE READ IN CONJUNCTION WITH YOUR REVIEW OF THIS REPORT. For further information regarding your use of this report, please go to: <https://get.ycharts.com/disclosure/>

Bond Sector Exposure

Data as of: March 31, 2025

				
	Vanguard Target Retirement 2030 Fund...	Bmark	Vanguard Target Retirement 2050 Fund...	Bmark
● Cash	4.09%	--	14.94%	--
● Corporate	18.13%	--	15.95%	--
● Derivative	16.45%	--	14.94%	--
● Government	47.51%	--	42.08%	--
● Municipal	0.27%	--	0.24%	--
● Securitized	13.55%	--	11.86%	--

Bond Maturity Exposure

Data as of: March 31, 2025

	Vanguard Target Retirement 2030 Fund In...	Bmark	Vanguard Target Retirement 2050 Fund In...	Bmark
● Short Term	0.05%	--	0.05%	--
1 to 7 Days	0.00%	--	0.00%	--
8 to 30 Days	0.00%	--	0.00%	--
31 to 90 Days	0.00%	--	0.00%	--
91 to 182 Days	0.00%	--	0.00%	--
183 to 364 Days	0.05%	--	0.05%	--
● Intermediate	63.64%	--	63.74%	--
1 to 3 Years	22.60%	--	22.58%	--
3 to 5 Years	16.84%	--	16.88%	--
5 to 7 Years	12.22%	--	12.24%	--
7 to 10 Years	11.98%	--	12.03%	--
● Long Term	36.31%	--	36.21%	--
10 to 15 Years	5.26%	--	5.31%	--
15 to 20 Years	7.00%	--	7.00%	--
20 to 30 Years	22.60%	--	22.45%	--
Over 30 Years	1.45%	--	1.46%	--

2025 YCharts, Inc. All Rights Reserved. YCharts, Inc. ("YCharts") is not registered with the U.S. Securities and Exchange Commission (or with the securities regulatory authority or body of any state or any other jurisdiction) as an investment adviser, broker-dealer or in any other capacity, and does not purport to provide investment advice or make investment recommendations. This report has been generated using data manually input by the creator of this report combined with data and calculations from YCharts.com and is intended solely to assist you or your investment or other adviser(s) in conducting investment research. You should not construe this report as an offer to buy or sell, as a solicitation of an offer to buy or sell, or as a recommendation to buy, sell, hold or trade, any security or other financial instrument. THE IMPORTANT DISCLOSURES FOUND AT THE END OF THIS REPORT (WHICH INCLUDE DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT) ARE AN INTEGRAL PART OF THIS REPORT AND MUST BE READ IN CONJUNCTION WITH YOUR REVIEW OF THIS REPORT. For further information regarding your use of this report, please go to: <https://get.ycharts.com/disclosure/>

Bond Credit Quality Exposure

Data as of: March 31, 2025

Rating	AAA	AA	A	BBB	BB	B	Below B	Not Rated
Vanguard Target Retirement 2030 Fund Investor	58.26%	9.92%	16.28%	14.44%	0.00%	0.00%	0.00%	1.11%
Vanguard Target Retirement 2050 Fund Investor	57.87%	10.11%	16.41%	14.48%	0.00%	0.00%	0.00%	1.13%
Benchmark	--	--	--	--	--	--	--	--

2025 YCharts, Inc. All Rights Reserved. YCharts, Inc. ("YCharts") is not registered with the U.S. Securities and Exchange Commission (or with the securities regulatory authority or body of any state or any other jurisdiction) as an investment adviser, broker-dealer or in any other capacity, and does not purport to provide investment advice or make investment recommendations. This report has been generated using data manually input by the creator of this report combined with data and calculations from YCharts.com and is intended solely to assist you or your investment or other adviser(s) in conducting investment research. You should not construe this report as an offer to buy or sell, as a solicitation of an offer to buy or sell, or as a recommendation to buy, sell, hold or trade, any security or other financial instrument. THE IMPORTANT DISCLOSURES FOUND AT THE END OF THIS REPORT (WHICH INCLUDE DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT) ARE AN INTEGRAL PART OF THIS REPORT AND MUST BE READ IN CONJUNCTION WITH YOUR REVIEW OF THIS REPORT. For further information regarding your use of this report, please go to: <https://get.ycharts.com/disclosure/>

Top 10 Holdings

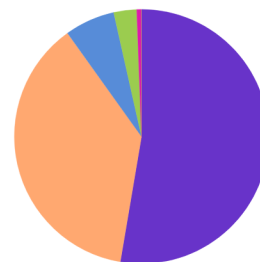
Data as of: April 30, 2025

Vanguard Target Retirement 2030 Fund Investor



Symbol	Name	% Weight	Close Price (Daily)	Annuali. 1 Year Total Returns (Daily)
● VSMPX	Vanguard Total Stock Market Index Fund Inst +	35.95%	267.52	13.23%
● VTBIX	Vanguard Total Bond Market II Index Fund...	26.74%	9.41	4.62%
● VGTSX	Vanguard Total International Stock Index Fun...	24.76%	21.41	10.62%
● VTILX	Vanguard Total International Bond II Index Fd...	11.92%	26.44	5.32%
● --	Vanguard Market Liquidity Fund	0.63%	--	--
● --	USD Cash	0.01%	--	--

Vanguard Target Retirement 2050 Fund Investor



Symbol	Name	% Weight	Close Price (Daily)	Annuali. 1 Year Total Returns (Daily)
● VSMPX	Vanguard Total Stock Market Index Fund Inst +	52.67%	267.52	13.23%
● VGTSX	Vanguard Total International Stock Index Fund..	37.44%	21.41	10.62%
● VTBIX	Vanguard Total Bond Market II Index Fund...	6.38%	9.41	4.62%
● VTILX	Vanguard Total International Bond II Index Fd...	2.92%	26.44	5.32%
● --	Vanguard Market Liquidity Fund	0.59%	--	--
● --	USD Cash	0.00%	--	--

The performance data quoted presents past performance; past performance does not guarantee future results; the investment return and principal value of an investment will fluctuate; an investor's shares, when redeemed, may be worth more or less than their original cost; current performance may be lower or higher than the performance data quoted. The most recent month end performance data can be accessed at https://go.ycharts.com/fund_contact_info. (See the Standardized Returns section of this report for standardized returns information).

2025 YCharts, Inc. All Rights Reserved. YCharts, Inc. ("YCharts") is not registered with the U.S. Securities and Exchange Commission (or with the securities regulatory authority or body of any state or any other jurisdiction) as an investment adviser, broker-dealer or in any other capacity, and does not purport to provide investment advice or make investment recommendations. This report has been generated using data manually input by the creator of this report combined with data and calculations from YCharts.com and is intended solely to assist you or your investment or other adviser(s) in conducting investment research. You should not construe this report as an offer to buy or sell, as a solicitation of an offer to buy or sell, or as a recommendation to buy, sell, hold or trade, any security or other financial instrument. THE IMPORTANT DISCLOSURES FOUND AT THE END OF THIS REPORT (WHICH INCLUDE DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT) ARE AN INTEGRAL PART OF THIS REPORT AND MUST BE READ IN CONJUNCTION WITH YOUR REVIEW OF THIS REPORT. For further information regarding your use of this report, please go to: <https://get.ycharts.com/disclosure/>

Risk Info

Data as of: April 30, 2025

		1Y	3Y	5Y	10Y	15Y
Alpha	Vanguard Target Retirement 20...	0.25	1.62	1.40	0.74	0.63
	Vanguard Target Retirement 20...	0.79	1.12	0.70	0.85	0.86
Beta	Vanguard Target Retirement 20...	0.95	0.94	0.94	0.97	0.96
	Vanguard Target Retirement 20...	0.95	0.96	0.96	0.96	0.95
Standard Deviation	Vanguard Target Retirement 20...	7.57%	10.86%	10.39%	11.29%	10.88%
	Vanguard Target Retirement 20...	10.47%	13.55%	13.14%	14.34%	13.45%
Historical Sharpe	Vanguard Target Retirement 20...	0.7139	0.25	0.5558	0.4252	0.606
	Vanguard Target Retirement 20...	0.6248	0.3614	0.6977	0.4501	0.5941
Historical Sortino	Vanguard Target Retirement 20...	1.134	0.3968	0.837	0.4745	0.695
	Vanguard Target Retirement 20...	0.8804	0.5757	1.051	0.5031	0.6782
Max Drawdown	Vanguard Target Retirement 20...	9.64%	22.74%	22.74%	24.86%	24.86%
	Vanguard Target Retirement 20...	14.54%	25.40%	25.40%	31.36%	31.36%
Monthly Value at Risk (VaR) 5%	Vanguard Target Retirement 20...	2.96%	4.84%	4.85%	4.81%	4.73%
	Vanguard Target Retirement 20...	4.55%	5.79%	5.95%	6.00%	5.75%

Risk/Reward

Data as of: April 30, 2025

Return	1Y	3Y	5Y	10Y	All time
● Vanguard Target Ret...	10.31%	7.16%	8.45%	6.66%	6.75%
● Vanguard Target Ret...	11.44%	9.34%	11.84%	8.32%	7.79%

Standard Deviation	1Y	3Y	5Y	10Y	All time
● Vanguard Target Ret...	7.57%	10.86%	10.39%	11.29%	13.32%
● Vanguard Target Ret...	10.47%	13.55%	13.14%	14.34%	15.35%

The performance data quoted presents past performance; past performance does not guarantee future results; the investment return and principal value of an investment will fluctuate; an investor's shares, when redeemed, may be worth more or less than their original cost; current performance may be lower or higher than the performance data quoted. The most recent month end performance data can be accessed at https://go.ycharts.com/fund_contact_info. (See the Standardized Returns section of this report for standardized returns information).

2025 YCharts, Inc. All Rights Reserved. YCharts, Inc. ("YCharts") is not registered with the U.S. Securities and Exchange Commission (or with the securities regulatory authority or body of any state or any other jurisdiction) as an investment adviser, broker-dealer or in any other capacity, and does not purport to provide investment advice or make investment recommendations. This report has been generated using data manually input by the creator of this report combined with data and calculations from YCharts.com and is intended solely to assist you or your investment or other adviser(s) in conducting investment research. You should not construe this report as an offer to buy or sell, as a solicitation of an offer to buy or sell, or as a recommendation to buy, sell, hold or trade, any security or other financial instrument. THE IMPORTANT DISCLOSURES FOUND AT THE END OF THIS REPORT (WHICH INCLUDE DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT) ARE AN INTEGRAL PART OF THIS REPORT AND MUST BE READ IN CONJUNCTION WITH YOUR REVIEW OF THIS REPORT. For further information regarding your use of this report, please go to: <https://get.ycharts.com/disclosure/>

All Holdings (Portfolio A) - Vanguard Target Retirement 2030 Fund Investor

Data as of: April 30, 2025

Symbol	Name	% Weight	Close Price (Daily)	Annlzd 1Y TR (M)	Annlzd 3Y TR (M)	Annlzd 5Y TR (M)	Annlzd 10Y TR (M)	Annlzd Total Rtns Since Incepti. (M)
VSMPX	Vanguard Total Stock Market Ind. Inst +	35.95%	267.52	11.27%	11.33%	15.04%	11.64%	10.20%
VTBIX	Vanguard Total Bond Market II In.vestor	26.74%	9.41	7.80%	1.91%	-0.73%	1.41%	2.64%
VGTSX	Vanguard Total International Sto..und Inv	24.76%	21.41	12.12%	7.96%	10.33%	4.94%	5.00%
VTILX	Vanguard Total International Bon.Fd Inst	11.92%	26.44	6.61%	2.68%	--	--	-0.20%
--	Vanguard Market Liquidity Fund	0.63%	--	--	--	--	--	--
--	USD Cash	0.01%	--	--	--	--	--	--

The performance data quoted presents past performance; past performance does not guarantee future results; the investment return and principal value of an investment will fluctuate; an investor's shares, when redeemed, may be worth more or less than their original cost; current performance may be lower or higher than the performance data quoted. The most recent month end performance data can be accessed at https://go.ycharts.com/fund_contact_info. (See the Standardized Returns section of this report for standardized returns information).

2025 YCharts, Inc. All Rights Reserved. YCharts, Inc. ("YCharts") is not registered with the U.S. Securities and Exchange Commission (or with the securities regulatory authority or body of any state or any other jurisdiction) as an investment adviser, broker-dealer or in any other capacity, and does not purport to provide investment advice or make investment recommendations. This report has been generated using data manually input by the creator of this report combined with data and calculations from YCharts.com and is intended solely to assist you or your investment or other adviser(s) in conducting investment research. You should not construe this report as an offer to buy or sell, as a solicitation of an offer to buy or sell, or as a recommendation to buy, sell, hold or trade, any security or other financial instrument. THE IMPORTANT DISCLOSURES FOUND AT THE END OF THIS REPORT (WHICH INCLUDE DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT) ARE AN INTEGRAL PART OF THIS REPORT AND MUST BE READ IN CONJUNCTION WITH YOUR REVIEW OF THIS REPORT. For further information regarding your use of this report, please go to: <https://get.ycharts.com/disclosure/>

Quarter End Performance (Portfolio A) - Vanguard Target Retirement 2030 Fund Investor

Data as of: March 31, 2025

Symbol	Name	% Weight	Close Price (Daily)	Annld 1Y TR (M)	Annld 3Y TR (M)	Annld 5Y TR (M)	Annld 10Y TR (M)	Annld Total Rtns Since Incepti. (M)
VSMPX	Vanguard Total Stock Market Ind. Inst +	35.95%	250.93	7.08%	8.12%	18.10%	11.76%	10.25%
VTBIX	Vanguard Total Bond Market II In.nvestor	26.74%	9.530	4.92%	0.49%	-0.47%	1.34%	2.62%
VGTSX	Vanguard Total International Sto..und Inv	24.76%	19.93	6.27%	4.59%	11.37%	5.14%	4.90%
VTILX	Vanguard Total International Bon.Fd Inst	11.92%	26.19	3.46%	1.25%	--	--	-0.60%
--	Vanguard Market Liquidity Fund	0.63%	--	--	--	--	--	--
--	USD Cash	0.01%	--	--	--	--	--	--

The performance data quoted presents past performance; past performance does not guarantee future results; the investment return and principal value of an investment will fluctuate; an investor's shares, when redeemed, may be worth more or less than their original cost; current performance may be lower or higher than the performance data quoted. The most recent month end performance data can be accessed at https://go.ycharts.com/fund_contact_info. (See the Standardized Returns section of this report for standardized returns information).

2025 YCharts, Inc. All Rights Reserved. YCharts, Inc. ("YCharts") is not registered with the U.S. Securities and Exchange Commission (or with the securities regulatory authority or body of any state or any other jurisdiction) as an investment adviser, broker-dealer or in any other capacity, and does not purport to provide investment advice or make investment recommendations. This report has been generated using data manually input by the creator of this report combined with data and calculations from YCharts.com and is intended solely to assist you or your investment or other adviser(s) in conducting investment research. You should not construe this report as an offer to buy or sell, as a solicitation of an offer to buy or sell, or as a recommendation to buy, sell, hold or trade, any security or other financial instrument. THE IMPORTANT DISCLOSURES FOUND AT THE END OF THIS REPORT (WHICH INCLUDE DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT) ARE AN INTEGRAL PART OF THIS REPORT AND MUST BE READ IN CONJUNCTION WITH YOUR REVIEW OF THIS REPORT. For further information regarding your use of this report, please go to: <https://get.ycharts.com/disclosure/>

Quarter End Performance - NAV (Portfolio A) - Vanguard Target Retirement 2030 Fund Investor

Data as of: March 31, 2025

Symbol	Name	Inception Date	% Weight	Close Price (Daily)	Annlzd 1Y TNR (M)	Annlzd 3Y TNR (M)	Annlzd 5Y TNR (M)	Annlzd 10Y TNR (M)	Annlzd Total NAV Rtns Since Incepti. (M)
VSMPX	Vanguard Total Stock Market Ind. Inst +	2015-04-28	35.95%	250.93	7.08%	8.12%	18.10%	11.76%	10.25%
VTBIX	Vanguard Total Bond Market II In.nvestor	2009-01-26	26.74%	9.530	4.92%	0.49%	-0.47%	1.34%	2.62%
VGTSX	Vanguard Total International Sto..und Inv	1996-04-29	24.76%	19.93	6.27%	4.59%	11.37%	5.14%	4.90%
VTILX	Vanguard Total International Bon.Fd Inst	2021-02-17	11.92%	26.19	3.46%	1.25%	--	--	-0.60%
--	Vanguard Market Liquidity Fund		0.63%	--	--	--	--	--	--
--	USD Cash		0.01%	--	--	--	--	--	--

The performance data quoted presents past performance; past performance does not guarantee future results; the investment return and principal value of an investment will fluctuate; an investor's shares, when redeemed, may be worth more or less than their original cost; current performance may be lower or higher than the performance data quoted. The most recent month end performance data can be accessed at https://go.ycharts.com/fund_contact_info. (See the Standardized Returns section of this report for standardized returns information).

2025 YCharts, Inc. All Rights Reserved. YCharts, Inc. ("YCharts") is not registered with the U.S. Securities and Exchange Commission (or with the securities regulatory authority or body of any state or any other jurisdiction) as an investment adviser, broker-dealer or in any other capacity, and does not purport to provide investment advice or make investment recommendations. This report has been generated using data manually input by the creator of this report combined with data and calculations from YCharts.com and is intended solely to assist you or your investment or other adviser(s) in conducting investment research. You should not construe this report as an offer to buy or sell, as a solicitation of an offer to buy or sell, or as a recommendation to buy, sell, hold or trade, any security or other financial instrument. THE IMPORTANT DISCLOSURES FOUND AT THE END OF THIS REPORT (WHICH INCLUDE DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT) ARE AN INTEGRAL PART OF THIS REPORT AND MUST BE READ IN CONJUNCTION WITH YOUR REVIEW OF THIS REPORT. For further information regarding your use of this report, please go to: <https://get.ycharts.com/disclosure/>

Expense Ratios and Sales Charges (Portfolio A) - Vanguard Target Retirement 2030 Fund Investor

Data as of: April 30, 2025

Symbol	Name	% Weight	Close Price (Daily)	Max Front Load	Max Def Load	Max Red Fee	Gross Expense Ratio	Net Expense Ratio
VSMPX	Vanguard Total Stock Market Ind. Inst +	35.95%	267.52	--	--	--	0.02%	0.02%
VTBIX	Vanguard Total Bond Market II In.nvestor	26.74%	9.41	--	--	--	0.09%	0.09%
VGTSX	Vanguard Total International Sto..und Inv	24.76%	21.41	--	--	--	0.17%	0.17%
VTILX	Vanguard Total International Bon.Fd Inst	11.92%	26.44	--	--	--	0.07%	0.07%
--	Vanguard Market Liquidity Fund	0.63%	--	--	--	--	--	--
--	USD Cash	0.01%	--	--	--	--	--	--

The performance data quoted presents past performance; past performance does not guarantee future results; the investment return and principal value of an investment will fluctuate; an investor's shares, when redeemed, may be worth more or less than their original cost; current performance may be lower or higher than the performance data quoted. The most recent month end performance data can be accessed at https://go.ycharts.com/fund_contact_info. (See the Standardized Returns section of this report for standardized returns information).

2025 YCharts, Inc. All Rights Reserved. YCharts, Inc. ("YCharts") is not registered with the U.S. Securities and Exchange Commission (or with the securities regulatory authority or body of any state or any other jurisdiction) as an investment adviser, broker-dealer or in any other capacity, and does not purport to provide investment advice or make investment recommendations. This report has been generated using data manually input by the creator of this report combined with data and calculations from YCharts.com and is intended solely to assist you or your investment or other adviser(s) in conducting investment research. You should not construe this report as an offer to buy or sell, as a solicitation of an offer to buy or sell, or as a recommendation to buy, sell, hold or trade, any security or other financial instrument. THE IMPORTANT DISCLOSURES FOUND AT THE END OF THIS REPORT (WHICH INCLUDE DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT) ARE AN INTEGRAL PART OF THIS REPORT AND MUST BE READ IN CONJUNCTION WITH YOUR REVIEW OF THIS REPORT. For further information regarding your use of this report, please go to: <https://get.ycharts.com/disclosure/>

Standardized Yields (Portfolio A) - Vanguard Target Retirement 2030 Fund Investor

Data as of: April 30, 2025

Symbol	Name	% Weight	Close Price (Daily)	7-Day SEC Yield	7-Day Unsub SEC Yield	30-Day SEC Yield	30-Day Unsub SEC Yield
VSMPX	Vanguard Total Stock Market Ind. Inst +	35.95%	267.52	--	--	1.31%	1.31%
VTBIX	Vanguard Total Bond Market II In.nvestor	26.74%	9.41	--	--	4.37%	4.32%
VGTSX	Vanguard Total International Sto..und Inv	24.76%	21.41	--	--	--	--
VTILX	Vanguard Total International Bon.Fd Inst	11.92%	26.44	--	--	3.18%	3.08%
--	Vanguard Market Liquidity Fund	0.63%	--	--	--	--	--
--	USD Cash	0.01%	--	--	--	--	--

The performance data quoted presents past performance; past performance does not guarantee future results; the investment return and principal value of an investment will fluctuate; an investor's shares, when redeemed, may be worth more or less than their original cost; current performance may be lower or higher than the performance data quoted. The most recent month end performance data can be accessed at https://go.ycharts.com/fund_contact_info. (See the Standardized Returns section of this report for standardized returns information).

2025 YCharts, Inc. All Rights Reserved. YCharts, Inc. ("YCharts") is not registered with the U.S. Securities and Exchange Commission (or with the securities regulatory authority or body of any state or any other jurisdiction) as an investment adviser, broker-dealer or in any other capacity, and does not purport to provide investment advice or make investment recommendations. This report has been generated using data manually input by the creator of this report combined with data and calculations from YCharts.com and is intended solely to assist you or your investment or other adviser(s) in conducting investment research. You should not construe this report as an offer to buy or sell, as a solicitation of an offer to buy or sell, or as a recommendation to buy, sell, hold or trade, any security or other financial instrument. THE IMPORTANT DISCLOSURES FOUND AT THE END OF THIS REPORT (WHICH INCLUDE DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT) ARE AN INTEGRAL PART OF THIS REPORT AND MUST BE READ IN CONJUNCTION WITH YOUR REVIEW OF THIS REPORT. For further information regarding your use of this report, please go to: <https://get.ycharts.com/disclosure/>

All Holdings (Portfolio B) - Vanguard Target Retirement 2050 Fund Investor

Data as of: April 30, 2025

Symbol	Name	% Weight	Close Price (Daily)	Annlzd 1Y TR (M)	Annlzd 3Y TR (M)	Annlzd 5Y TR (M)	Annlzd 10Y TR (M)	Annlzd Total Rtns Since Incepti. (M)
VSMPX	Vanguard Total Stock Market Ind. Inst +	52.67%	267.52	11.27%	11.33%	15.04%	11.64%	10.20%
VGTSX	Vanguard Total International Sto..und Inv	37.44%	21.41	12.12%	7.96%	10.33%	4.94%	5.00%
VTBIX	Vanguard Total Bond Market II In.nvestor	6.38%	9.41	7.80%	1.91%	-0.73%	1.41%	2.64%
VTILX	Vanguard Total International Bon.Fd Inst	2.92%	26.44	6.61%	2.68%	--	--	-0.20%
--	Vanguard Market Liquidity Fund	0.59%	--	--	--	--	--	--
--	USD Cash	0.00%	--	--	--	--	--	--

The performance data quoted presents past performance; past performance does not guarantee future results; the investment return and principal value of an investment will fluctuate; an investor's shares, when redeemed, may be worth more or less than their original cost; current performance may be lower or higher than the performance data quoted. The most recent month end performance data can be accessed at https://go.ycharts.com/fund_contact_info. (See the Standardized Returns section of this report for standardized returns information).

2025 YCharts, Inc. All Rights Reserved. YCharts, Inc. ("YCharts") is not registered with the U.S. Securities and Exchange Commission (or with the securities regulatory authority or body of any state or any other jurisdiction) as an investment adviser, broker-dealer or in any other capacity, and does not purport to provide investment advice or make investment recommendations. This report has been generated using data manually input by the creator of this report combined with data and calculations from YCharts.com and is intended solely to assist you or your investment or other adviser(s) in conducting investment research. You should not construe this report as an offer to buy or sell, as a solicitation of an offer to buy or sell, or as a recommendation to buy, sell, hold or trade, any security or other financial instrument. THE IMPORTANT DISCLOSURES FOUND AT THE END OF THIS REPORT (WHICH INCLUDE DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT) ARE AN INTEGRAL PART OF THIS REPORT AND MUST BE READ IN CONJUNCTION WITH YOUR REVIEW OF THIS REPORT. For further information regarding your use of this report, please go to: <https://get.ycharts.com/disclosure/>

Quarter End Performance (Portfolio B) - Vanguard Target Retirement 2050 Fund Investor

Data as of: March 31, 2025

Symbol	Name	% Weight	Close Price (Daily)	Annld 1Y TR (M)	Annld 3Y TR (M)	Annld 5Y TR (M)	Annld 10Y TR (M)	Annld Total Rtns Since Incepti. (M)
VSMPX	Vanguard Total Stock Market Ind. Inst +	52.67%	250.93	7.08%	8.12%	18.10%	11.76%	10.25%
VGTSX	Vanguard Total International Sto..und Inv	37.44%	19.93	6.27%	4.59%	11.37%	5.14%	4.90%
VTBIX	Vanguard Total Bond Market II In.nvestor	6.38%	9.530	4.92%	0.49%	-0.47%	1.34%	2.62%
VTILX	Vanguard Total International Bon.Fd Inst	2.92%	26.19	3.46%	1.25%	--	--	-0.60%
--	Vanguard Market Liquidity Fund	0.59%	--	--	--	--	--	--
--	USD Cash	0.00%	--	--	--	--	--	--

The performance data quoted presents past performance; past performance does not guarantee future results; the investment return and principal value of an investment will fluctuate; an investor's shares, when redeemed, may be worth more or less than their original cost; current performance may be lower or higher than the performance data quoted. The most recent month end performance data can be accessed at https://go.ycharts.com/fund_contact_info. (See the Standardized Returns section of this report for standardized returns information).

2025 YCharts, Inc. All Rights Reserved. YCharts, Inc. ("YCharts") is not registered with the U.S. Securities and Exchange Commission (or with the securities regulatory authority or body of any state or any other jurisdiction) as an investment adviser, broker-dealer or in any other capacity, and does not purport to provide investment advice or make investment recommendations. This report has been generated using data manually input by the creator of this report combined with data and calculations from YCharts.com and is intended solely to assist you or your investment or other adviser(s) in conducting investment research. You should not construe this report as an offer to buy or sell, as a solicitation of an offer to buy or sell, or as a recommendation to buy, sell, hold or trade, any security or other financial instrument. THE IMPORTANT DISCLOSURES FOUND AT THE END OF THIS REPORT (WHICH INCLUDE DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT) ARE AN INTEGRAL PART OF THIS REPORT AND MUST BE READ IN CONJUNCTION WITH YOUR REVIEW OF THIS REPORT. For further information regarding your use of this report, please go to: <https://get.ycharts.com/disclosure/>

Quarter End Performance - NAV (Portfolio B) - Vanguard Target Retirement 2050 Fund Investor

Data as of: March 31, 2025

Symbol	Name	Inception Date	% Weight	Close Price (Daily)	Annld 1Y TNR (M)	Annld 3Y TNR (M)	Annld 5Y TNR (M)	Annld 10Y TNR (M)	Annld Total NAV Rtns Since Incepti. (M)
VSMPX	Vanguard Total Stock Market Ind. Inst +	2015-04-28	52.67%	250.93	7.08%	8.12%	18.10%	11.76%	10.25%
VGTSX	Vanguard Total International Sto..und Inv	1996-04-29	37.44%	19.93	6.27%	4.59%	11.37%	5.14%	4.90%
VTBIX	Vanguard Total Bond Market II In.nvestor	2009-01-26	6.38%	9.530	4.92%	0.49%	-0.47%	1.34%	2.62%
VTILX	Vanguard Total International Bon.Fd Inst	2021-02-17	2.92%	26.19	3.46%	1.25%	--	--	-0.60%
--	Vanguard Market Liquidity Fund		0.59%	--	--	--	--	--	--
--	USD Cash		0.00%	--	--	--	--	--	--

The performance data quoted presents past performance; past performance does not guarantee future results; the investment return and principal value of an investment will fluctuate; an investor's shares, when redeemed, may be worth more or less than their original cost; current performance may be lower or higher than the performance data quoted. The most recent month end performance data can be accessed at https://go.ycharts.com/fund_contact_info. (See the Standardized Returns section of this report for standardized returns information).

2025 YCharts, Inc. All Rights Reserved. YCharts, Inc. ("YCharts") is not registered with the U.S. Securities and Exchange Commission (or with the securities regulatory authority or body of any state or any other jurisdiction) as an investment adviser, broker-dealer or in any other capacity, and does not purport to provide investment advice or make investment recommendations. This report has been generated using data manually input by the creator of this report combined with data and calculations from YCharts.com and is intended solely to assist you or your investment or other adviser(s) in conducting investment research. You should not construe this report as an offer to buy or sell, as a solicitation of an offer to buy or sell, or as a recommendation to buy, sell, hold or trade, any security or other financial instrument. THE IMPORTANT DISCLOSURES FOUND AT THE END OF THIS REPORT (WHICH INCLUDE DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT) ARE AN INTEGRAL PART OF THIS REPORT AND MUST BE READ IN CONJUNCTION WITH YOUR REVIEW OF THIS REPORT. For further information regarding your use of this report, please go to: <https://get.ycharts.com/disclosure/>

Expense Ratios and Sales Charges (Portfolio B) - Vanguard Target Retirement 2050 Fund Investor

Data as of: April 30, 2025

Symbol	Name	% Weight	Close Price (Daily)	Max Front Load	Max Def Load	Max Red Fee	Gross Expense Ratio	Net Expense Ratio
VSMPX	Vanguard Total Stock Market Ind. Inst +	52.67%	267.52	--	--	--	0.02%	0.02%
VGTSX	Vanguard Total International Sto..und Inv	37.44%	21.41	--	--	--	0.17%	0.17%
VTBIX	Vanguard Total Bond Market II In.nvestor	6.38%	9.41	--	--	--	0.09%	0.09%
VTILX	Vanguard Total International Bon.Fd Inst	2.92%	26.44	--	--	--	0.07%	0.07%
--	Vanguard Market Liquidity Fund	0.59%	--	--	--	--	--	--
--	USD Cash	0.00%	--	--	--	--	--	--

The performance data quoted presents past performance; past performance does not guarantee future results; the investment return and principal value of an investment will fluctuate; an investor's shares, when redeemed, may be worth more or less than their original cost; current performance may be lower or higher than the performance data quoted. The most recent month end performance data can be accessed at https://go.ycharts.com/fund_contact_info. (See the Standardized Returns section of this report for standardized returns information).

2025 YCharts, Inc. All Rights Reserved. YCharts, Inc. ("YCharts") is not registered with the U.S. Securities and Exchange Commission (or with the securities regulatory authority or body of any state or any other jurisdiction) as an investment adviser, broker-dealer or in any other capacity, and does not purport to provide investment advice or make investment recommendations. This report has been generated using data manually input by the creator of this report combined with data and calculations from YCharts.com and is intended solely to assist you or your investment or other adviser(s) in conducting investment research. You should not construe this report as an offer to buy or sell, as a solicitation of an offer to buy or sell, or as a recommendation to buy, sell, hold or trade, any security or other financial instrument. THE IMPORTANT DISCLOSURES FOUND AT THE END OF THIS REPORT (WHICH INCLUDE DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT) ARE AN INTEGRAL PART OF THIS REPORT AND MUST BE READ IN CONJUNCTION WITH YOUR REVIEW OF THIS REPORT. For further information regarding your use of this report, please go to: <https://get.ycharts.com/disclosure/>

Standardized Yields (Portfolio B) - Vanguard Target Retirement 2050 Fund Investor

Data as of: April 30, 2025

Symbol	Name	% Weight	Close Price (Daily)	7-Day SEC Yield	7-Day Unsub SEC Yield	30-Day SEC Yield	30-Day Unsub SEC Yield
VSMPX	Vanguard Total Stock Market Ind. Inst +	52.67%	267.52	--	--	1.31%	1.31%
VGTSX	Vanguard Total International Sto..und Inv	37.44%	21.41	--	--	--	--
VTBIX	Vanguard Total Bond Market II In.nvestor	6.38%	9.41	--	--	4.37%	4.32%
VTILX	Vanguard Total International Bon.Fd Inst	2.92%	26.44	--	--	3.18%	3.08%
--	Vanguard Market Liquidity Fund	0.59%	--	--	--	--	--
--	USD Cash	0.00%	--	--	--	--	--

The performance data quoted presents past performance; past performance does not guarantee future results; the investment return and principal value of an investment will fluctuate; an investor's shares, when redeemed, may be worth more or less than their original cost; current performance may be lower or higher than the performance data quoted. The most recent month end performance data can be accessed at https://go.ycharts.com/fund_contact_info. (See the Standardized Returns section of this report for standardized returns information).

2025 YCharts, Inc. All Rights Reserved. YCharts, Inc. ("YCharts") is not registered with the U.S. Securities and Exchange Commission (or with the securities regulatory authority or body of any state or any other jurisdiction) as an investment adviser, broker-dealer or in any other capacity, and does not purport to provide investment advice or make investment recommendations. This report has been generated using data manually input by the creator of this report combined with data and calculations from YCharts.com and is intended solely to assist you or your investment or other adviser(s) in conducting investment research. You should not construe this report as an offer to buy or sell, as a solicitation of an offer to buy or sell, or as a recommendation to buy, sell, hold or trade, any security or other financial instrument. THE IMPORTANT DISCLOSURES FOUND AT THE END OF THIS REPORT (WHICH INCLUDE DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT) ARE AN INTEGRAL PART OF THIS REPORT AND MUST BE READ IN CONJUNCTION WITH YOUR REVIEW OF THIS REPORT. For further information regarding your use of this report, please go to: <https://get.ycharts.com/disclosure/>

Benchmark Information - S&P 500 Total Return

Data as of: March 31, 2025

Symbol	Name	% Weight	Close Price (Daily)	Annlzd 1Y TR (M)	Annlzd 3Y TR (M)	Annlzd 5Y TR (M)	Annlzd 10Y TR (M)	Annlzd Total Rtns Since Incepti. (M)
^SPXTR	S&P 500 Total Return	100.0%	--	8.25%	9.06%	18.59%	12.50%	10.39%

The performance data quoted presents past performance; past performance does not guarantee future results; the investment return and principal value of an investment will fluctuate; an investor's shares, when redeemed, may be worth more or less than their original cost; current performance may be lower or higher than the performance data quoted. The most recent month end performance data can be accessed at https://go.ycharts.com/fund_contact_info. (See the Standardized Returns section of this report for standardized returns information).

2025 YCharts, Inc. All Rights Reserved. YCharts, Inc. ("YCharts") is not registered with the U.S. Securities and Exchange Commission (or with the securities regulatory authority or body of any state or any other jurisdiction) as an investment adviser, broker-dealer or in any other capacity, and does not purport to provide investment advice or make investment recommendations. This report has been generated using data manually input by the creator of this report combined with data and calculations from YCharts.com and is intended solely to assist you or your investment or other adviser(s) in conducting investment research. You should not construe this report as an offer to buy or sell, as a solicitation of an offer to buy or sell, or as a recommendation to buy, sell, hold or trade, any security or other financial instrument. THE IMPORTANT DISCLOSURES FOUND AT THE END OF THIS REPORT (WHICH INCLUDE DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT) ARE AN INTEGRAL PART OF THIS REPORT AND MUST BE READ IN CONJUNCTION WITH YOUR REVIEW OF THIS REPORT. For further information regarding your use of this report, please go to: <https://get.ycharts.com/disclosure/>

Benchmark Components

Data as of: May 20, 2025

^SPXTR S&P 500 Total Return	The S&P 500 index covers the 500 largest companies that are in the United States. These companies can vary across various sectors. The S&P 500 is one of the most important indices in the world as it widely tracks how the United States stock market is performing. The S&P 500 has had several major drawdowns that have been greater than 40% during recessionary periods including in 1974, 2002, and 2009.
---------------------------------------	---

2025 YCharts, Inc. All Rights Reserved. YCharts, Inc. ("YCharts") is not registered with the U.S. Securities and Exchange Commission (or with the securities regulatory authority or body of any state or any other jurisdiction) as an investment adviser, broker-dealer or in any other capacity, and does not purport to provide investment advice or make investment recommendations. This report has been generated using data manually input by the creator of this report combined with data and calculations from YCharts.com and is intended solely to assist you or your investment or other adviser(s) in conducting investment research. You should not construe this report as an offer to buy or sell, as a solicitation of an offer to buy or sell, or as a recommendation to buy, sell, hold or trade, any security or other financial instrument. THE IMPORTANT DISCLOSURES FOUND AT THE END OF THIS REPORT (WHICH INCLUDE DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT) ARE AN INTEGRAL PART OF THIS REPORT AND MUST BE READ IN CONJUNCTION WITH YOUR REVIEW OF THIS REPORT. For further information regarding your use of this report, please go to: <https://get.ycharts.com/disclosure/>

Definitions

Allocations and Exposure Data: All hypothetical portfolio attributes are calculated as weighted averages of the underlying holdings using the target weights input by the creator of this report. The underlying securities' attributes are based on data in YCharts, Inc. provided by Morningstar, Inc. For individual stock positions the entire weight is assigned to the corresponding sector, market cap group, style, etc.

Alpha vs Category: Alpha vs category metrics are calculated over various time periods against the category benchmark. They measure how well an investment has performed relative to its category benchmark. Positive alpha indicates that the investment outperformed the benchmark, suggesting the manager or strategy added value, whereas negative alpha indicates underperformance compared to the category benchmark.

Annualized Price Return: Annualized returns are period returns re-scaled to show the compound annual growth rate of the security. This allows investors to compare returns of different assets that they have owned for different lengths of time. It also gives the investor an idea of the returns that they would have returned per year if they had been invested in the security during the time frame of the annualized metric.

Annualized Total NAV Return: Annualized Total NAV returns are period returns re-scaled to show the compound annual growth rate of the security. This allows investors to compare returns of different assets that they have owned for different lengths of time. It also gives the investor an idea of the returns that they would have returned per year if they had been invested in the security during the time frame of the annualized metric.

Annualized Total Returns: Annualized Total returns are period returns re-scaled to show the compound annual growth rate of the security. This allows investors to compare returns of different assets that they have owned for different lengths of time. It also gives the investor an idea of the returns that they would have returned per year if they had been invested in the security during the time frame of the annualized metric.

Asset Allocation: Asset allocation reflects the asset class weightings of the fund or portfolio. The Other category includes security types that are not neatly classified in the other asset classes or cannot be classified by YCharts as a result of missing data. Allocations may not sum to 100% due to rounding.

Average Coupon: Average Coupon is the average rate of the coupons of the bonds in a fund, weighted based each bond holding's size relative to the portfolio. Average coupon indicates whether a fund is carrying a greater amount of high or low coupon bonds. While higher coupon bonds offer more return, they may carry additional risk.

Average Credit Quality Score: Short def: The Average Credit Quality Score is an average of the credit rating of the bonds held by a fund. The average is calculated by assigning a value to each underlying bond in the fund based on the relative default rate, which is determined by the credit rating of the bond. It assumes that the odds of default increase as the credit rating decreases. The average default rate is then used to determine the average credit quality of the fund.

Average Market Cap: Market capitalization represents the total value of a company as determined by multiplying its share price by the total number of shares outstanding. It is commonly used to classify companies by size, such as large-cap, mid-cap, or small-cap. Weighted average market capitalization reflects the average market cap of the securities in a fund or portfolio, weighted by their respective proportions. It provides insight into a fund or portfolio's exposure to different market-cap segments, helping to assess its overall size profile and risk characteristics.

Average Price: Average price indicates whether a fund favors investing in bonds below or above face value. A higher value (above 100) would suggest the latter.

Definitions

Beta vs Category: Beta vs category metrics are calculated over various time periods against the category benchmark. They measure an investment's sensitivity to the overall movements of its category benchmark. A beta equal to 1 indicates that the investment tends to move in line with the benchmark, suggesting a similar level of risk, a beta greater than 1 indicates that the investment is more volatile than the benchmark, suggesting higher risk, and a beta less than 1 indicates that the investment is less volatile than the benchmark, suggesting lower risk. A list of YCharts category benchmarks can be viewed here https://ycharts.com/glossary/terms/ycharts_category_benchmarks

Bond Maturity Exposure: Bond Maturity Exposure provides a breakdown of the fixed income securities held within a portfolio based on their bond maturity dates. It highlights the allocation of investments across various maturity periods, indicating the distribution of bonds that are due to mature within specific time frames. Fixed income securities are grouped into three categories - short-term, intermediate-term, and long-term maturities. Short-term bonds generally have maturities of one to three years, intermediate-term bonds range from four to ten years, and long-term bonds have maturities beyond ten years.

Bond Sector Exposure: Bond sector exposure shows the percentage of a portfolio's long fixed income assets invested in each of six sectors - Government, Municipal, Corporate, Securitized, Cash & Equivalents, and Derivatives. The Government Sector comprises all standard government-issued debt, bonds from a Central Bank or Treasury, and bonds issued by local governments, cantons, regions, and provinces. The Municipal Sector consists of taxable and tax-exempt debt obligations issued by states, cities, counties, provinces, and other non-federal government entities. The Corporate Sector encompasses bank loans, convertible bonds, traditional corporate debt securities, and preferred stock. The Securitized Sector covers all types of mortgage-backed securities, covered bonds, and asset-backed securities. The Cash & Equivalents Sector includes bank cash, certificates of deposit, currency, and money market holdings. It also includes any fixed-income securities maturing within short time frames, commercial paper, and repurchase agreements. The Derivatives Sector encompasses common types of fixed-income derivative contracts such as futures and forwards, options, and swaps.

Credit Quality Exposure: Credit quality exposure metrics show the breakdown of a fund or portfolio's fixed income securities across various credit rating categories. Credit ratings, provided by independent agencies, guide investors in understanding the risk associated with bonds or debt instruments. Each rating agency has its own alphabetical designations and most range from high (AAA to AA), to medium (A to BBB), and low (BB, B, CCC, CC, C, and D). Higher ratings indicate lower risk, while lower ratings signify higher potential return, higher risk and potential financial distress. YCharts receives credit quality exposure data for funds from a data provider who calculates the percentage for each rating category by weighting each holding's credit rating by its market value then averaging by the sum of holding values. An average rating is computed for holdings that have multiple ratings. The distribution is based upon available credit ratings from recognized credit rating agencies such as a Nationally Recognized Statistical Rating Organization (NRSRO) in the U.S. A full list of NRSROs can be found at <https://www.sec.gov/about/divisions-offices/office-credit-ratings/current-nrsros>.

Current Yield: The Current Yield metric is available for mutual funds and ETFs on YCharts. It reflects the income of the bond holdings in a fund relative to the fund's price. Current Yield is an annualized figure and can be interpreted as the income an investor could expect to earn from the bond holdings of the fund if it was held for one year.

Distribution Yield: Distribution yield is a financial metric that measures the income from distributions relative to the value of an investment. It shows how much a fund or portfolio has paid out in distributions each year relative to its price, NAV (Net Asset Value) or level (for portfolios). Distribution yield is available for the following security types on YCharts: mutual funds, ETFs, closed end funds, and portfolios.

Dividend Yield: Dividend yield is a financial metric that measures the income from dividends relative to the value of an investment. It shows how much a company, fund, or portfolio has paid out in dividends each year relative to its price, NAV (Net Asset Value) or level (for portfolios). Dividend yield is available for the following security types on YCharts: stocks, mutual funds, ETFs, Closed End Funds (CEFs), and portfolios.

Effective Duration: Effective duration is a measure of risk for funds that hold bonds with embedded options. It estimates the amount the NAV of a fund will fall when interest rates rise by 1% or will increase when interest rates fall by 1%. This acts as a measure of the interest rate sensitivity of a fund, and takes into account put, call, and prepayment options.

Definitions

Gross Expense Ratio: The gross expense ratio is a measure of a fund's total expenses before any adjustments. It encompasses all costs associated with managing and operating a fund, including 12b-1 fees, management and administrative charges, operational expenditures, and all other costs tied to managing and operating a fund, before any fee waivers or other reductions are applied. Transaction fees, brokerage costs and sales charges are not reflected in the gross expense ratio. It is important to look at both the expense ratio and gross expense ratio when evaluating a fund. For example, if a fund has an expense ratio of 2% and a gross expense ratio of 3%, 1% of potential fees or other expenses were waived. There is no guarantee that these rebates or reimbursements will continue in the future, and if they are discontinued, the cost of owning the fund represented by the expense ratio would be 3%.

Historical Sharpe Ratio: The Sharpe Ratio measures the risk-adjusted return of a security. This is a useful metric for analyzing the return you are receiving on a security in comparison to the amount of volatility expected. The historical sharpe ratio uses historical returns to calculate the return and standard deviation.

Market Cap Exposure: Market capitalization exposure shows how a portfolio's stock holdings are distributed across companies of different sizes, based on their market capitalization. Giant-cap companies are the largest in the market and are usually industry leaders with a significant global presence. Large-cap companies are also well-established and widely recognized but are generally smaller than giant-cap firms. Medium-cap companies are larger and more established than small-cap companies but have more growth potential compared to large-cap companies. Small-cap companies are considered riskier but have the potential for significant growth. Micro-cap companies are the smallest publicly traded companies, and usually have limited financial resources and less liquidity in their stocks.

Market Classification: Reflects a fund or portfolio's exposure to developed and emerging markets.

Max Drawdown: Max drawdown is an indicator of the risk of a portfolio chosen based on a certain strategy. It measures the largest single drop from peak to bottom in the value of a portfolio before a new peak is achieved.

Maximum Deferred Load: A deferred load is a fee that is charged when an investor sells certain classes of fund shares before a specified date. The maximum deferred load refers to the maximum amount a fund may charge an investor when they redeem their investment.

Maximum Front Load: A front-end load is a sales charge or commission that an investor pays up front, at the time they purchase the fund. The maximum front load refers to the maximum amount a fund may charge an investor when they purchase a fund.

Maximum Redemption Fee: The maximum redemption fee is the maximum amount a fund may charge if an investor redeems their investment within a specific time period after purchasing a fund, for example, 30, 180, or 365 days. The Securities and Exchange Commission limits redemption fees to a maximum of 2% of the sales amount.

Net Expense Ratio: The expense ratio represents the cost of owning a fund. It expresses the percent of assets deducted each fiscal year to cover various fund expenses, including 12b-1 fees, management and administrative charges, operational expenditures, and all other costs tied to managing and operating a fund, less any fee waivers or other rebates. Transaction fees, brokerage costs and sales charges are not reflected in the expense ratio. In contrast, the gross expense ratio does not incorporate any fee waivers or other adjustments that were in effect during the time period. It is important to look at both the expense ratio and gross expense ratio when evaluating a fund. For example, if a fund has an expense ratio of 2% and a gross expense ratio of 3%, 1% of potential fees or other expenses were waived. There is no guarantee that these rebates or reimbursements will continue in the future, and if they are discontinued, the cost of owning the fund represented by the expense ratio would be 3%.

Number of bond holdings: Total number of unique bond holdings of a fund.

Definitions

Number of holdings: Number of holdings is the sum of all the unique holdings of a fund, equity, fixed income, derivative, or alternative investments included. It's important to note that if a mutual fund holds both common and preferred stock of a company the number of holdings would be 2.

Number of stock holdings: Total number of unique stock holdings of a fund. It's important to note that if a fund holds both common and preferred stock of a company, the company would be counted twice.

Price: The price of a security measures the cost to purchase 1 share of a security. For a company, price can be multiplied by shares outstanding to find the market capitalization (value of the company).

Region Exposure: Reflects the exposure of a fund or portfolio's investments to the indicated geographic area(s).

SEC Yield: SEC Yield is the yield on a fund over the last 30 days. It is determined by first calculating the net investment income over the 30 day period, which covers all dividends and interest earned less any fund expenses. The net investment income is then divided by the maximum price per share on the last day of the period. Since yield often remains consistent over time, SEC Yield is commonly used to measure the potential income earned when holding a fund for a 12 month period. SEC Yields may also be available in an unsubsidized format, which does not account for any expense reimbursements or fee waivers. It's important to note that while most funds calculate SEC yield over a 30 day period, some money market funds may calculate SEC yield over a 7 day period. Our data provider receives SEC Yield data directly from the fund managers.

Sortino Ratio: The Sortino Ratio is named after Frank Sortino, who is widely recognized for his use of downside risk. The Sortino ratio is very similar to the Sharpe ratio in that it is trying to capture the risk of an investment over a certain period. However, the Sortino Ratio does this by capturing the "downside" risk, by ignoring the upside volatility. The theory being investors should only be concerned with harmful (negative) volatility.

Standard Deviation: Standard deviation measures how much an investment's return deviates from its average over a specific period. Higher standard deviation indicates more volatility, while lower standard deviation signifies steadier returns. YCharts makes five types of standard deviation metrics over different time periods available: daily, monthly, quarterly, annualized monthly, and annualized quarterly.

Stock Sector Exposure: Shows the breakdown of a fund or portfolio's long equity assets across eleven major industry groups and how they roll up to three broad sectors - cyclical, sensitive and defensive.

Stock Style Exposure: Stock Style Exposure shows how a portfolio's holdings are distributed across companies of different sizes (based on their market capitalization) and investment styles (value, blend or growth). YCharts calculates the stock style data based on the calculation methods seen below: Stock size is calculated by first taking the constituents of the Russell 3000 and sorting by market cap. They are then broken into size based on their percentile of overall market cap. Large cap is made up of the largest 70% of stocks in the Russell 3000, stocks with a market cap greater than the 70% cut off are grouped into large cap. Stocks in the next 15% are grouped into mid cap. Stocks in the bottom 15% are grouped into small cap. Stock style is calculated using the average Z-Score of 6 metrics: 1. Price to Book Value (3Y Mean) 2. PE Ratio (3Y Mean) 3. PS Ratio (3Y Mean) 4. Return on Equity (3Y Mean) 5. Revenue (3Y Growth) 6. Dividend Yield Each are compared to an index based on their stocks size, Large Cap are compared to the S&P 500, Mid Cap are compared to the S&P 400, and Small Cap are compared to the S&P 600. The Z-Score is calculated using the formula $Z\text{-Score} = \frac{[(\text{Stock Value} - \text{Index Average}) / \text{Index Standard Deviation}]}{1}$ for the first 5 metrics. Dividend Yield Z-Score is calculated as $\text{Dividend Yield Z-Score} = \frac{[(\text{Stock Value} - \text{Index Average}) / \text{Index Standard Deviation}] - 1}{1}$. Once the Z-Score has been calculated for all 6 metrics, the average is taken and the following breakpoints are used: 1. Z-Score > 0.3 = Growth 2. Z-Score < -0.3 = Value 3. Z-Score between -0.3 and 0.3 = Core

Total Return: The Total return is the change in price over a specific period of time that includes dividends and distributions paid.

Definitions

Total Return Level: The total return level allows investors to view the performance of a security inclusive of both price appreciation and dividends/distributions. Total return level is seen as the most accurate calculation that produces returns consistent with most other sources.

Value At Risk (VaR): The VaR calculates the potential loss of an investment with a given time frame and confidence level. For example, if a security has a 5% Daily VaR (All) of 4%: There is 95% confidence that the security will not have a larger loss than 4% in one day. Since this metric says (All) we are calculating this using all available price history for the security. In another example, if a security has a Monthly VaR 1% (3Y Lookback) of 15%: There is 99% confidence that the security will not have a larger loss than 15% in one month. This is calculated using the past 3 years of historical prices. Keep in mind that VaR does not give you any information about the magnitude of the potential loss in excess of the VaR. For a calculation that give you this information you can view [Expected Shortfall](#).

Weighted Average Debt to Capital: The weighted average debt-to-capital ratio measures the proportion of a fund's total debt in relation to its total capital with each underlying holding being taken into account based on weight in the fund's portfolio. This ratio helps assess the fund's overall financial leverage and its potential risk exposure stemming from its debt obligations.

Weighted Average PE Ratio: A weighted average of each underlying holding's share price relative to the sales per share. Stocks that have Revenue per Share < 0 are excluded in this calculation.

Weighted Average Price to Book Ratio: The weighted average price-to-book ratio for a fund is a measure that quantifies the valuation of the fund's holdings relative to their book values, while accounting for the proportion of each holding in the fund's total portfolio. It is calculated by multiplying the price-to-book ratio of each individual holding by its portfolio weight, summing these products across all holdings, and then dividing by the total portfolio weight.

Weighted Average Price to Sales Ratio: The weighted average price-to-sales ratio of a portfolio is a financial metric that gauges the overall valuation of the assets within a portfolio in relation to their combined sales revenue. This calculation considers the market value of each asset, assigning more influence to larger holdings, and computes the average valuation relative to the total sales generated by all assets

Weighted Median Return on Assets: Return on Assets (ROA) measures how efficiently a company is using its assets to generate profits. It indicates how much profit is being earned for each dollar of assets owned. It is measured as Net Income / Average Total assets of the last 5 quarters. Weighted Median ROA of a portfolio is calculated by taking into account both the individual ROA of each investment and its weight in the overall portfolio.

Weighted Median Return on Equity: Return on Equity (ROE) is an indication of how well a company is using its shareholders' money to generate profits. It is measured as Net Income / Average TTM Shareholder's Equity. Weighted Median ROE is calculated by taking into account both the individual ROE of each investment and its weight in the overall portfolio. It is the middle value of the ROEs of each individual portfolio asset when arranged in ascending order after being multiplied by their respective weights.

Yield to Maturity: Yield to maturity is the internal rate of return earned when buying the bond today at the market price, assuming the buyer holds the bond to maturity, and all the coupon and principal payments are made. It is expressed as an annualized figure. YCharts calculates Yield to Maturity for bond funds by weighting the remaining coupon and principal payments relative to the size of the portfolio.