

Welcome to your plan's new performance reports!

Vanguard has recently implemented a new reporting system to provide enhanced investment insights for institutional clients. In addition to the functionality previously incorporated in your performance reports, a few notable enhancements include:

- Additional portfolio allocation snapshots
- Contributions to return reports
- Risk analysis
- Daily time-weighted returns methodology
- Inclusion of Vanguard brokerage holdings

These new performance report updates are the result of extensive research on industry best practices as well as client feedback to deliver a best-in-class service experience. If you have any questions or would like more information, please reach out to your investment consultant.

Vermont Student Development Fund, Inc.

Monthly performance report

Period ended March 31, 2023

Vanguard®

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Performance summary—by securities

Vermont Student Development Fund, Inc.

For the periods ended March 31, 2023

	Mkt value (\$)	% of portfolio	Policy benchmark	1 mo (%)	3 mo (%)	YTD (%)	1 yr (%)	3 yrs (%)	5 yrs (%)	10 yrs (%)	Since inception	Inception date
Client portfolio (gross)	9,457,980	100.0	100.0	2.81	5.54	5.54	-5.70	8.81	6.12	-	6.68	08/31/16
Equity	5,715,386	60.4	-	2.64	7.28	7.28	-7.61	17.50	8.99	-	10.50	08/31/16
• Domestic Equity	4,545,040	48.1	-	2.64	7.16	7.16	-8.78	18.35	10.36	-	11.57	08/31/16
- Vanguard Total Stock Market Index Fund Admiral Shares	4,545,040	48.1	-	2.64	7.16	7.16	-8.78	18.35	10.36	-	11.57	08/31/16
Spliced Total Stock Market Index				2.63	7.15	7.15	-8.77	18.37	10.37	-	11.58	08/31/16
Multi-Cap Core Funds Average				1.63	5.73	5.73	-7.83	17.17	8.20	-	9.51	08/31/16
• International Equity	1,170,346	12.4	-	2.63	7.72	7.72	-2.91	13.82	3.42	-	6.12	08/31/16
- Vanguard Developed Markets Index Fund Admiral Shares	1,170,346	12.4	-	2.63	7.72	7.72	-2.91	13.82	3.42	-	6.11	08/31/16
Spliced Developed ex US Index				2.05	7.62	7.62	-4.10	13.54	3.43	-	6.09	08/31/16
International Funds Average				2.87	8.39	8.39	-2.58	12.66	2.77	-	5.53	08/31/16
Fixed Income	3,742,594	39.6	-	3.06	3.00	3.00	-2.87	-3.44	0.99	-	0.32	08/31/16
• Domestic Fixed Income	3,742,594	39.6	-	3.06	3.00	3.00	-2.87	-3.44	0.99	-	0.32	08/31/16
- Vanguard Intermediate-Term Treasury Index Fund Admiral Shares	3,742,594	39.6	-	3.06	3.00	3.00	-2.87	-3.44	0.99	-	0.32	08/31/16
Spliced Bloomberg Barclays U.S. Treasury 3-10 Year Index in USD				3.05	2.77	2.77	-2.79	-3.38	1.05	-	0.38	08/31/16
General U.S. Treasury Funds Average				3.58	4.41	4.41	-10.32	-7.77	-0.27	-	-1.05	08/31/16

Source: Vanguard Data. **Past Performance is not a guarantee of future results. All investing is subject to risk, including possibility of loss.** Performance results shown are time-weighted returns that are net of all underlying fund expense ratios, but are gross of advisory, service fees, and purchase/redemption fees applied to the client portfolio. Portfolio returns reflect the reinvestment of dividends, capital gains, and interest. Had those expenses been deducted returns would have been lower. Indexes are unmanaged; direct investment is not possible. Unless otherwise indicated, index returns do not reflect the deduction of fees and expenses but do reflect reinvestment of dividends, capital gains, and interest. **Please read additional information in Benchmark and Disclosures sections.**

Cash flow and market value summary

Vermont Student Development Fund, Inc.

For the periods ended March 31, 2023

Cash flow summary and market value history

	Last month	Last three months	Year-to-date	One year
Beginning Market Value	\$9,143,027.59	\$8,906,076.30	\$8,906,076.30	\$9,918,622.68
Net Cash Flow	\$57,780.84	\$57,780.84	\$57,780.84	\$102,201.54
Contributions	\$57,780.84	\$57,780.84	\$57,780.84	\$102,201.54
Redemptions	\$0.00	\$0.00	\$0.00	\$0.00
Net Investment Change	\$257,171.28	\$494,122.57	\$494,122.57	-\$562,844.52
Net Capital	\$228,238.25	\$450,716.57	\$450,716.57	-\$738,148.82
Investment Income	\$28,933.03	\$43,406.00	\$43,406.00	\$175,304.30
Ending Market Value	\$9,457,979.70	\$9,457,979.70	\$9,457,979.70	\$9,457,979.70

Source: Vanguard.

Cash flow summary by securities

Vermont Student Development Fund, Inc.

For the one-month period ended March 31, 2023

	Beginning market value	Net cash flow	Investment income	Net capital change	Ending market value
Vanguard Total Stock Market Index Fund Admiral Shares	\$4,400,641.65	\$27,734.80	\$17,217.74	\$99,445.83	\$4,545,040.01
Vanguard Developed Markets Index Fund Admiral Shares	\$1,133,535.16	\$6,933.70	\$4,042.06	\$25,835.05	\$1,170,345.97
Vanguard Intermediate-Term Treasury Index Fund Admiral Shares	\$3,608,850.79	\$23,112.34	\$7,673.23	\$102,957.37	\$3,742,593.72
Total	\$9,143,027.59	\$57,780.84	\$28,933.03	\$228,238.25	\$9,457,979.70

Source: Vanguard. Net cash flow represents net purchases and sales, exchanges to and from client accounts, trading, administrative, and other expenses.

Investment expense summary

Vermont Student Development Fund, Inc.

As of March 31, 2023

	Market value	% of portfolio	Expense ratio	Estimated expense
Total Equity	\$5,715,385.98	60.4%		\$2,637.26
• Domestic Equity	\$4,545,040.01	48.1%		\$1,818.02
Vanguard Total Stock Market Index Fund Admiral Shares	\$4,545,040.01	48.1%	0.040%	\$1,818.02
• International Equity	\$1,170,345.97	12.4%		\$819.24
Vanguard Developed Markets Index Fund Admiral Shares	\$1,170,345.97	12.4%	0.070%	\$819.24
Total Fixed Income	\$3,742,593.72	39.6%		\$2,619.82
• Domestic Fixed Income	\$3,742,593.72	39.6%		\$2,619.82
Vanguard Intermediate-Term Treasury Index Fund Admiral Shares	\$3,742,593.72	39.6%	0.070%	\$2,619.82
Total	\$9,457,979.70	100.0%	0.056%	\$5,257.07

Estimated annual investment expenses are shown for all investments held in the portfolio. Estimated annual investment expenses are forward looking and can be subject to change.

Benchmark performance summary

Vermont Student Development Fund, Inc.

For the periods ended March 31, 2023

	Mar-23 (%)	3 mon (%)	1 yr (%)	3 yrs (%)	5 yrs (%)	10 yrs (%)
● Domestic Equity						
CRSP U.S. Total Market Index	2.63	7.15	-8.77	18.37	10.37	11.70
Russell 1000 Growth Index	6.84	14.37	-10.90	18.58	13.66	14.59
Russell 1000 Value Index	-0.46	1.01	-5.91	17.93	7.50	9.13
S&P 500 Index	3.67	7.50	-7.73	18.60	11.19	12.24
S&P MidCap 400 Index	-3.21	3.81	-5.12	22.10	7.67	9.80
S&P SmallCap 600 Index	-5.16	2.57	-8.82	21.71	6.30	9.87
● International Equity						
MSCI ACWI ex USA IMI Index Net	2.13	6.56	-5.48	12.34	2.43	4.32
MSCI EAFE Index	2.48	8.47	-0.79	13.21	3.65	5.06
Spliced Emerging Markets Index	2.26	3.07	-10.14	9.51	0.18	2.26
● Global Equity						
Spliced Total World Stock Index	2.55	6.99	-7.33	15.92	6.96	8.34
● Domestic Fixed Income						
Bloomberg Barclays U.S. 0-5 Year Treasury Inflation Protected Securities Index	1.90	2.19	-0.32	3.47	2.97	1.55
Bloomberg Barclays U.S. 5-10 Year Corporate Bond Index	2.96	3.64	-4.00	0.26	2.10	2.50
Bloomberg Barclays U.S. Aggregate Float Adjusted Index	2.60	3.01	-4.72	-2.73	0.95	1.39
Bloomberg Barclays U.S. Corporate High Yield Bond Index	1.07	3.57	-3.34	5.91	3.21	4.10
Bloomberg Barclays U.S. Long Government/Credit Float Adjusted Index	4.40	5.76	-13.40	-6.33	0.63	2.35
Bloomberg Barclays U.S. Treasury Inflation Protected Securities Index	2.89	3.34	-6.06	1.75	2.94	1.49
Bloomberg Barclays U.S. Treasury Strips 20-30 Year Equal Par Bond Index	5.42	8.18	-23.66	-15.96	-1.55	1.70
Spliced Bloomberg Barclays U.S. Long Treasury Index in USD	4.74	6.17	-16.00	-11.33	-0.35	1.45

Source: Vanguard **Past performance is no guarantee of future results.** Benchmarks are unmanaged; therefore direct investment is not possible. Index returns do not reflect deduction of fees and expenses but do reflect the reinvestment of dividends, capital gains, and interest. **Please read Benchmark section for descriptions and additional information.**

Benchmark performance summary (continued)

Vermont Student Development Fund, Inc.

For the periods ended March 31, 2023

	Mar-23 (%)	3 mon (%)	1 yr (%)	3 yrs (%)	5 yrs (%)	10 yrs (%)
● International Fixed Income						
Bloomberg Barclays Global Aggregate ex-USD Float Adjusted RIC Capped Index Hedged	2.30	3.18	-5.16	-2.69	0.39	2.09
Bloomberg Barclays USD Emerging Markets Government RIC Capped Index	1.40	2.12	-6.41	0.07	-0.15	-
● Global Fixed Income						
Bloomberg Barclays Global Aggregate Bond Index	2.22	2.90	-9.73	-4.01	-1.70	-0.11
Bloomberg Barclays Global Aggregate Index Hedged USD	2.22	2.90	-3.86	-2.13	0.95	1.93
● Domestic Real Estate						
MSCI US REIT Index	-2.47	2.73	-19.17	11.99	6.02	5.94
Real Estate Spliced Index	-2.06	1.83	-20.00	9.96	5.92	5.89

Source: Vanguard **Past performance is no guarantee of future results.** Benchmarks are unmanaged; therefore direct investment is not possible. Index returns do not reflect deduction of fees and expenses but do reflect the reinvestment of dividends, capital gains, and interest. **Please read Benchmark section for descriptions and additional information.**

Benchmark descriptions

Policy Benchmark:

The client's policy benchmark is a weighted set of indices that align to the Investment Management Agreement Schedule B which sets forth the strategic asset allocation for the client portfolio. The Policy Benchmark is rebalanced monthly. Allocations may change overtime as the investment strategy changes. See Benchmark allocation history for details.

The benchmarks for asset and sub-asset classes on the Performance summary reports is determined by the client's primary policy benchmark. Asset and sub-asset class benchmarks are a proportionally representation of their segment within the client's primary policy benchmark and adjusts over time with the changes in the policy benchmark. See Benchmark allocation history for details.

Vanguard spliced benchmarks:

Spliced Total Stock Market Index: Dow Jones U.S. Total Stock Market Index (formerly known as the Dow Jones Wilshire 5000 Index) through April 22, 2005; MSCI US Broad Market Index through June 2, 2013; and CRSP US Total Market Index thereafter.

Spliced Total International Stock Index: Total International Composite Index through August 31, 2006; MSCI EAFE + Emerging Markets Index through December 15, 2010; MSCI ACWI ex USA IMI Index through June 2, 2013; and FTSE Global All Cap ex US Index thereafter. Benchmark returns are adjusted for withholding taxes.

Spliced Emerging Markets Index: Select Emerging Markets Index through August 23, 2006; MSCI Emerging Markets Index through January 9, 2013; FTSE Emerging Transition Index through June 27, 2013; FTSE Emerging Index through November 1, 2015; FTSE Emerging Markets All Cap China A Transition Index through September 18, 2016; and FTSE Emerging Markets All Cap China A Inclusion Index thereafter. Benchmark returns are adjusted for withholding taxes.

Spliced Extended Market Index reflects the performance of the Dow Jones U.S. Completion Total Stock Market Index through June 17, 2005; S&P Transitional Completion Index through September 16, 2005; S&P Completion Index thereafter.

Spliced Dev ex North America Index reflects the performance of the MSCI EAFE Index through May 28, 2013; FTSE Developed ex North America Index thereafter

Real Estate Spliced Index: MSCI US REIT Index adjusted to include a 2% cash position (Lipper Money Market Average) through April 30, 2009; MSCI US REIT Index through February 1, 2018; MSCI US Investable Market Real Estate 25/50 Transition Index through July 24, 2018; MSCI US Investable Market Real Estate 25/50 Index thereafter.

Spliced Bloomberg U.S. Aggregate Float Adjusted Index: Bloomberg U.S. Aggregate Bond Index through December 31, 2009; Bloomberg U.S. Aggregate Float Adjusted Index thereafter.

Spliced Bloomberg U.S. 1-5Yr Government/Credit Float Adjusted Index: Bloomberg U.S. 1-5 Year Government/Credit Bond Index through December 31, 2009; Bloomberg U.S. 1-5 Year Government/Credit Float Adjusted Index thereafter.

Spliced Bloomberg U.S. Long Government/Credit Float Adjusted Index: Bloomberg U.S. Long Government/Credit Bond Index through December 31, 2009; Bloomberg U.S. Long Government/Credit Float Adjusted Index thereafter.

Spliced Intermediate Investment-Grade Debt Funds Average: Lipper Intermediate US Gov't Funds Average through December 31, 2001; Lipper Intermediate Inv-Grade Debt Funds Avg through August 31, 2013; Lipper Core Bond Funds Average thereafter.

Spliced Small Cap Value Index: S&P SmallCap 600/Barra Value Index through May 16, 2003; MSCI US Small Cap Value Index through April 16, 2013; CRSP US Small Cap Value Index thereafter.

Benchmark descriptions (continued)

Market benchmarks:

Balanced Composite Index: Weighted 60% Dow Jones U.S. Total Stock Market Index (formerly known as the Dow Jones Wilshire 5000 Index) and 40% Lehman Brothers U.S. Aggregate Bond Index through May 31, 2005; 60% MSCI US Broad Market Index and 40% Bloomberg U.S. Aggregate Bond Index through December 31, 2009; 60% MSCI US Broad Market Index and 40% Bloomberg U.S. Aggregate Float Adjusted Index through January 14, 2013; and 60% CRSP US Total Market Index and 40% Bloomberg U.S. Aggregate Float Adjusted Index thereafter.

Bloomberg Barclays 1-5 Yr Credit (Ret): The index measures the performance of the investment grade, US dollar denominated, fixed-rate, taxable corporate and government related bonds with maturity of 1-5 years. It is comprised of the US Corporate Index and a non-corporate component that includes foreign agencies, sovereigns, supranationals and local authorities.

Bloomberg Barclays 1-5 Yr Treas (Ret): The index measures the performance of US treasuries with maturity of 1 to 4.9999 Years.

Bloomberg Barclays Global Aggregate ex USD Float Adjusted RIC - USD Hedged (Ret): The index measures the performance of the global, investment-grade, fixed rate debt markets, including government, government agency, corporate and securitized non-U.S. fixed income investments - all issued in currencies other than the U.S. dollar and with maturities of more than one year - with the foreign currency exposure of the securities included in the Barclays Global Aggregate ex-USD Float Adjusted RIC Capped Index hedged to the Canadian dollar. It is market capitalization-weighted.

Bloomberg Barclays Global Aggregate ex USD TR USD (Ret): The index measures the performance of global investment grade fixed-rate debt markets that excludes USD-dominated securities.

Bloomberg Barclays Intermediate U.S. Treasury (Ret): The index measures the performance of public obligations of the U.S. Treasury with maturities of 1-10 years, including securities roll up to the U.S. Aggregate, U.S. Universal, and Global Aggregate Indices.

Bloomberg Barclays Long A+ U.S. Credit (Ret): The index measures the performance of the US Corporate and a non-corporate component with maturities of 10 years and greater that includes foreign agencies, sovereigns, supranationals and local authorities. It applies a more or less stringent set of constraints to any existing index. The index is a subset of the US Government/Credit Index and the US Aggregate Index.

Bloomberg Barclays Long Term U.S. Treasury (Ret): This index measure the performance of U.S. treasury bill with long term maturity. The credit level for this index is investment grade. The rebalance scheme is monthly.

Bloomberg Barclays Treasury 1-5 Year (Ret): This index measures the performance of US dollar-denominated, fixed-rate, nominal debt issued by the US Treasury with 1-5 years maturities.

Bloomberg Barclays U.S. Aggregate (Ret): The index measures the performance of investment grade, U.S. dollar-denominated, fixed-rate taxable bond market, including Treasuries, government-related and corporate securities, MBS (agency fixed-rate and hybrid ARM passthroughs), ABS, and CMBS. It rolls up into other Bloomberg flagship indices, such as the multi-currency Global Aggregate Index and the U.S. Universal Index, which includes high yield and emerging markets debt.

Bloomberg Barclays U.S. Aggregate Float Adjusted (Ret): The index measures the performance of a new benchmark of the broad fixed-rate USD-denominated investment grade bond market that excludes securities held in the Federal Reserve System Open Market Account (SOMA).

Bloomberg Barclays U.S. Corporate High Yield (Ret): The index measures the performance of USD-denominated, non-investment grade, fixed-rate, taxable corporate bonds, including corporate bonds, fixed-rate bullet, putable, and callable bonds, SEC Rule 144A securities, Original issue zeros, Pay-in-kind (PIK) bonds, Fixed-rate and fixed-to-floating capital securities.

Bloomberg Barclays U.S. Credit (Ret): The index measures the performance of the US Corporate and a non-corporate component that includes foreign agencies, sovereigns, supranationals and local authorities. It is a subset of the US Government/Credit Index and the US Aggregate Index.

Bloomberg Barclays U.S. Credit: 5-10 Yr (Ret): The index measures the performance of the US Corporate and a non-corporate component with maturities of 5-10 year that includes foreign agencies, sovereigns, supranationals and local authorities. It is a subset of the US Government/Credit Index and the US Aggregate Index.

Benchmark descriptions (continued)

Bloomberg Barclays U.S. Gov/Credit Float Adjusted: Long (Ret): The index measures the performance of the non-securitized component of the US Aggregate index with maturities of 10 years and greater. It uses alternative weighting schemes instead of market value weights.

Bloomberg Barclays U.S. Intermediate Credit (Ret): The index measures the performance of the US Corporate and a non-corporate component that includes foreign agencies, sovereigns, supranationals and local authorities with maturities of 1-10 years. It is a subset of the US Government/Credit Index and the US Aggregate Index.

Bloomberg Barclays U.S. Long Credit (Ret): The index measures the performance of the US Corporate and a non-corporate component that includes foreign agencies, sovereigns, supranationals and local authorities with maturities of 10 years and greater. It is a subset of the US Government/Credit Index and the US Aggregate Index.

Bloomberg Barclays U.S. Treasury (Ret): The index measures the performance of public obligations of the U.S. Treasury, including securities roll up to the U.S. Aggregate, U.S. Universal, and Global Aggregate Indices.

Bloomberg Barclays U.S. Treasury TIPS 0-5 Years (Ret): The index measures the performance of rules-based, market value-weighted inflation-protected securities issued by the U.S. Treasury. It is a subset of the Global Inflation-Linked Index (Series-L) with the 0-5 years maturities.

Bloomberg Barclays U.S. Treasury TIPS 1-5 Years (Ret): The index measures the performance of inflation-protected securities with maturities of 1-5 years issued by the U.S. Treasury. It is a subset of the Global Inflation-Linked Index (Series-L), with a 38.5% market value weight in the index (as of December 31, 2010), but is not eligible for other nominal Treasury or Aggregate indices.

Bloomberg Barclays U.S. Treasury: 5-10 Yr (Ret): The index measures the performance of public obligations of the U.S. Treasury with maturities of 5-10 years, including securities roll up to the U.S. Aggregate, U.S. Universal, and Global Aggregate Indices.

Bloomberg Barclays U.S. Treasury: Long (Ret): The index measures the performance of public obligations of the U.S. Treasury with maturities of 10 years and greater, including securities roll up to the U.S. Aggregate, U.S. Universal, and Global Aggregate Indices.

Bloomberg Barclays U.S. Treasury: U.S. TIPS (Ret): The index measures the performance of rules-based, market value-weighted inflation-protected securities issued by the U.S. Treasury. It is a subset of the Global Inflation-Linked Index (Series-L).

Bloomberg Barclays US Treasury Inflation Notes 5+ Years (Ret): The index measures the performance of inflation-protected securities issued by the U.S. Treasury (TIPS) with the maturities more than 5 years.

Bloomberg Barclays USD Emerging Markets Government RIC (Ret): The index measures the performance of US dollar-denominated bonds issued by emerging market governments, government agencies and government-owned corporations with maturities longer than one year. CRSP US Total Market: The index measures the performance of broad US securities that traded on NYSE, NYSE Market, NANASDAQ or ARCA. It captures nearly 100% of the US investable equity market with around 4000 constituents across mega, large, small and micro capitalizations.

Dow Jones U.S. Total Stock Market Index: The index measures the performance of all US equity securities with readily available prices. It represents the top 95% of the US stock market based on market capitalization. The index is float-adjusted market capitalization weighted.

FTSE GLOBAL ALL CAP EX US INDEX: The index measures the performance of large, mid and small cap stocks globally excluding the US. It is derived from the FTSE Global Equity Index Series (GEIS). The index is market-capitalization weighted.

MSCI ACWI - Daily: The index measures the performance of the large and mid cap segments of all country markets. It is free float-adjusted market-capitalization weighted.

MSCI ACWI ex USA - Daily: The index measures the performance of the 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.

Benchmark descriptions (continued)

MSCI EM (EMERGING MARKETS) - Daily: The index measures the performance of the large and mid cap segments of emerging market equity securities. It is free float-adjusted market-capitalization weighted.

MSCI US BROAD MARKET INDEX - Daily: The index measures the performance of broad US equity market. It includes constituents across large, mid, small and micro capitalizations, representing most of the US equity universe. The index is free float adjusted market-capitalization weighted.

MSCI US REIT INDEX - Daily: The index measures the performance of the large, mid and small cap segments of the US equity securities. It is comprised of Equity REITs securities and based on the MSCI USA Investable Market Index, with the exception of Mortgage REIT and selected Specialized REITs. The index represents approximately most of the US REIT universe and securities are classified in the REIT sector according to the Global Industry Classification Standard. It is a free float market capitalization weighted index.

MSCI WORLD ex USA - Daily - Net: The index measures the performance of the large and mid cap segments of world, excluding US equity securities. It is free float-adjusted market-capitalization weighted.

Consumer Price Index for all Urban Consumers (CPI-U): This index measures the changes in prices of goods and services purchased by urban households.

IA SBBI US Inflation: An unmanaged index designed to track the U.S. inflation rate. The Consumer Price Index for All Urban Consumers, or CPI-U, is used by IA SBBI to measure inflation, which is the rate of change of consumer goods prices.

US Treasury T-Bill Auction Ave 3 Month: 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.

Additional Information

Gross Portfolio Returns represent client-specific time-weighted returns (TWR) of the entire portfolio including the deduction of mutual fund expense ratios, purchase/redemption fees, and other security-level expenses, but gross of advisory and service fees applied to the client portfolio.

Client performance inception date is generally the first month-end after initial funding.

Lipper Fund Average performance figures assume the reinvestment of dividends and capital gains distributions. The fund performance percentages are based on fund total return data, adjusted for expenses, obtained from Lipper, a Thomson Reuters Company, and was not adjusted for fees and loads.

Clients invested in Exchange-traded Funds “ETFs” transact at the market price during market trading hours. ETF performance for clients is also based on the market price at close, which may be different than the fund’s Net Asset Value.

Market value and returns for individual securities are calculated using the client’s daily custodial records. As a result, returns may vary slightly from the official month-end returns of a security as reported on Vanguard.com.

Glossary of risk metrics:

Standard Deviation is a risk measure of dispersion around the mean return.

Tracking Error is a relative risk measure of the standard deviation of excess returns.

Sharpe Ratio is a total risk measure of portfolio reward to variability.

Information Ratio is a relative risk measure of portfolio excess returns and tracking error.

Jensen's Alpha is a systematic risk measure of excess return adjusted for systematic risk.

Beta is a systematic risk measure of the sensitivity of portfolio returns to changes in benchmark returns.

R-Squared is the square of the correlation coefficient and is the proportion of portfolio returns variance that is related to benchmark returns variance.

Disclosures

For more information about Vanguard funds, Vanguard ETFs, or non-Vanguard funds offered through Vanguard Brokerage Services, visit [vanguard.com](https://www.vanguard.com) or call your investment consultant or relationship manager to obtain a prospectus or, if available, a summary prospectus. Investment objectives, risks, charges, expenses, and other important information are contained in the prospectus; read and consider it carefully before investing.

Vanguard ETF® Shares are not redeemable with the issuing fund other than in very large aggregations worth millions of dollars. Instead, investors must buy or sell Vanguard ETF Shares in the secondary market and hold those shares in a brokerage account. In doing so, the investor may incur brokerage commissions and may pay more than net asset value when buying and receive less than net asset value when selling.

The performance data shown represents 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 quarter-end, visit our website at www.vanguard.com/performance.

Mutual funds and all investments are subject to risk, including the possible loss of the money you invest. Prices of mid- and small-cap stocks often fluctuate more than those of large-company stocks. Investments in stocks or bonds issued by non-U.S. companies are subject to risks including country/regional risk and currency risk. These risks are especially high in emerging markets. Funds that concentrate on a relatively narrow sector face the risk of higher share-price volatility. It is possible that tax-managed funds will not meet their objective of being tax-efficient. Because company stock funds concentrate on a single stock, they are considered riskier than diversified stock funds.

Investments in bond funds are subject to the risk that an issuer will fail to make payments on time and that bond prices will decline because of rising interest rates or negative perceptions of an issuer's ability to make payments. High-yield bonds generally have medium- and lower-range credit quality ratings and are therefore subject to a higher level of credit risk than bonds with higher credit quality ratings. Although the income from a municipal bond fund is exempt from federal tax, you may owe taxes on any capital gains realized through the fund's trading or through your own redemption of shares. For some investors, a portion of the fund's income may be subject to state and local taxes, as well as to the federal Alternative Minimum Tax. Diversification does not ensure a profit or protect against a loss. There is no guarantee that any particular asset allocation or mix of funds will meet your investment objectives or provide you with a given level of income.

While U.S. Treasury or government agency securities provide substantial protection against credit risk, they do not protect investors against price changes due to changing interest rates. Unlike stocks and bonds, U.S. Treasury bills are guaranteed as to the timely payment of principal and interest.

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