

Vanguard U.S. Momentum Factor ETF | VFMO

As of December 31, 2022

Investment approach

- Advisor uses a rules-based quantitative model to evaluate U.S. common stocks.
- Fund invests in stocks with strong recent performance.
- The portfolio includes a diverse mix of stocks representing many different market capitalizations (large, mid, and small), market sectors, and industry groups.
- Seeks long-term capital appreciation.
- Typically, at least 80% of the fund's assets will be invested in securities issued by U.S. companies.
- Note: The Momentum factor is measured by total returns from month T-12 to month T-1, total returns from month T-7 to month T-1, and the intercept from a 1-year regression of stock returns on their regional benchmark.

About the benchmark

- The Russell 3000 Index measures the performance of the largest 3,000 companies representing approximately 98% of the investable U.S. equity market.
- The index is constructed to provide a comprehensive, unbiased, and stable barometer of the broad market and is reconstituted annually to ensure new and growing equities are included.

Performance history

Total returns² for period ended December 31, 2022

VFMO (Inception 02/13/2018)	Quarter	Year to date	1 year	3 years	Since inception
Net asset value (NAV) return ³	8.41%	-12.84%	-12.84%	10.89%	10.09%
Market price return ⁴	8.35	-12.87	-12.87	10.89	10.09
Russell 3000 Index	7.18	-19.21	-19.21	7.07	9.13

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

Investment Products: Not FDIC Insured • No Bank Guarantee • May Lose Value

Quick facts

Benchmark	Russell 3000 Index
Expense ratio ¹	0.13%
Dividend schedule	Quarterly
ETF total net assets	\$265 million
Fund total net assets	\$265 million
Inception date	February 13, 2018

Trading information

Ticker symbol	VFMO
CUSIP number	921935508
IIV (intra-day ticker)	VFMO.IV
Index ticker (Bloomberg)	RU30INTR
Exchange	CBOE

ETF attributes

	U.S. Momentum Factor ETF	Russell 3000 Index
Number of stocks	665	2,959
Median market cap	\$9.0B	\$110.4B
Price/earnings ratio	11.8x	18.0x
Price/book ratio	2.7x	3.3x
Return on equity	9.5%	19.6%
Earnings growth rate	15.9%	19.3%
Turnover rate ⁵	103.3	—
Standard deviation ⁶	23.30%	21.79%

1. As reported in the most recent prospectus. A fund's current expense ratio may be lower or higher than the figure reported in the prospectus.

2. Figures for periods of less than one year are cumulative returns. All other figures represent average annual returns. Fund performance figures assume the reinvestment of dividends and capital gains distributions; the figures are pre-tax and net of expenses. The above widely used comparative index represents unmanaged or average returns on various financial assets that can be compared with the fund's total returns for the purpose of measuring relative performance.

3. As of 4 p.m., Eastern time, when the regular trading session of the New York Stock Exchange typically closes.

4. Market price returns are calculated using the midpoint between the bid and offer prices at the time NAV is calculated, typically 4 p.m., Eastern time.

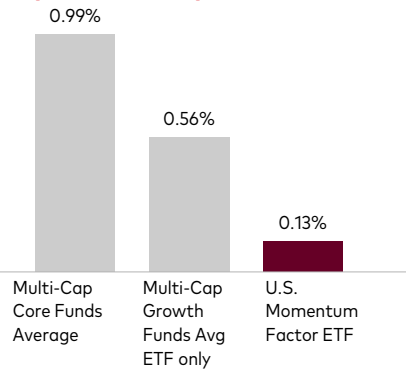
5. For most recent fiscal year. Turnover rate excludes the value of portfolio securities received or delivered as a result of in-kind purchases or redemptions of the fund's capital shares, including Vanguard ETF Creation Units.

6. A measure of the volatility of a fund—based on the fund's last three years of monthly returns—used to indicate the dispersion of past returns. A higher standard deviation means a greater potential for volatility. For funds with less than 36 months of performance history, standard deviation is not calculated.

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Expense ratio comparison¹



Ten largest holdings and % of total net assets²

McKesson Corp.	1.1%
UnitedHealth Group Inc.	1.1
ConocoPhillips	1.0
Merck & Co. Inc.	0.9
Marathon Petroleum Corp.	0.9
Exxon Mobil Corp.	0.9
EOG Resources Inc.	0.9
Vertex Pharmaceuticals Inc.	0.8
Chevron Corp.	0.8
AutoZone Inc.	0.8
Top ten as % of total net assets	9.2%

Market capitalization breakdown

Large Cap	31.7%
Medium/Large Cap	3.6
Medium Cap	9.3
Medium/Small Cap	15.1
Small Cap	40.3

Subindustry diversification as % of common stock³

Energy	20.3%
Health Care	19.3
Industrials	16.9
Financials	13.9
Consumer Discretionary	9.7
Consumer Staples	7.4
Technology	6.0
Basic Materials	3.6
Telecommunications	1.9
Utilities	0.9
Real Estate	0.1
Other	0.0

1. Represents the expense ratio for the Vanguard ETF as reported in the most recent prospectus. There are material differences between mutual funds and ETFs. Unlike mutual funds, ETFs are priced continuously and bought and sold throughout the day in the secondary market (at a premium or discount to net asset value) with the assistance of a stockbroker, which entails paying commissions. Sources: Lipper, a Thomson Reuters Company, and Vanguard, December 31, 2021.

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

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

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.

All ETF products are subject to risk, which may result in the loss of principal.

The Factor Funds are subject to investment style risk, which is the chance that returns from the types of stocks in which a Factor Fund invests will trail returns from U.S. stock markets. The Factor Funds are also subject to manager risk, which is the chance that poor security selection will cause a Factor Fund to underperform its relevant benchmark or other funds with a similar investment objective, and sector risk, which is the chance that significant problems will affect a particular sector in which a Factor Fund invests, or that returns from that sector will trail returns from the overall stock market.

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For more information about Vanguard ETF Shares, visit [vanguard.com](https://www.vanguard.com), call 866-499-8473, or contact your broker 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.

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