



VANGUARD HIGH DIVIDEND YIELD ETF

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FINA6203 – GROUP 1

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Because a complete historical time series for the “FTSE High Dividend Yield (U.S.)” index is not publicly available, this report employs the “FTSE All-World High Dividend Yield” index as a reasonable proxy for benchmarking and comparative analyses. Unless otherwise noted, all data are sourced from publicly available channels, including but not limited to Yahoo Finance, Morningstar, Vanguard (VYM official site), and other reputable financial websites. Differences in index definitions and vendor methodologies (e.g., dividend/total-return conventions, closing-time cutoffs, constituent changes, and restatements) may lead to discrepancies between our figures and those reported elsewhere; such differences are expected.

Portfolio Objectives

Investment Objectives, Benchmark, Strategy, and Policy Statement

The Vanguard High Dividend Yield ETF (VYM) aims to track the FTSE High Dividend Yield Index, which measures the performance of U.S. companies with above-average dividend yield, excluding REITS. To reduce tracking error, the fund uses a passive indexing strategy, investing at least 80% of its assets in the same stocks and proportions as the index. It focuses on large and mid-cap firms with stable dividend records that provide investors with consistent income and long-term capital growth. Maintaining a cost-efficient, diversified portfolio under the management of the Vanguard Group, with a low turnover rate of 13% and an expense ratio of 0.06%, VYM places a strong emphasis on consistent performance and disciplined index tracking.

Investment Style & Process for Selecting Securities

VYM follows a rules-based passive indexing strategy, replicating the FTSE High Dividend Yield Index by investing in all or nearly all of its constituents. The fund targets U.S. companies with strong dividend histories and stable financial conditions, and weights them by market capitalization, giving larger firms greater influence on performance. This approach provides broad sector diversification while maintaining exposure to reliable, above-average dividend payers. The fund's low turnover reflects its disciplined index tracking process, and the use of buffer zones during annual rebalancing helps minimize transaction costs and reduce unnecessary trading.

Buy / Sell Discipline for Securities

VYM's buy and sell decisions are entirely rules-based, following the composition of the FTSE High Dividend Yield Index. The fund adds companies when they enter the index and sells them when they are

removed due to dividend cuts, financial deterioration, mergers, or falling below inclusion thresholds. These adjustments are non-discretionary, ensuring objective and consistent index replication. To avoid unnecessary trading, buffer zones are applied during index reviews, helping minimize turnover and trading costs while maintaining alignment with the benchmark and stable dividend exposure.

Security Holdings

The top 10 holdings of the fund as of **September 30, 2025**

Name	Weight (%)
Broadcom Inc.	7.31
JPMorgan Chase & Co.	4.20
Exxon Mobil Corporation	2.35
Walmart Inc.	2.15
Johnson & Johnson	2.14
AbbVie Inc.	1.97
Home Depot Inc.	1.94
Procter & Gamble Co.	1.73
Bank of America Corp.	1.67
UnitedHealth Group Inc.	1.51

Investment Horizon

VYM was established on November 10, 2006, as a passively managed sub-fund tracking the FTSE High Dividend Yield Index. It is generally not advised to trade the fund for short periods of time because it seeks long-term volatility driven by interest rate sensitivity, market cycles, dividend policy changes, and periodic index rebalancing. While keeping smaller diversifying weights in other industries, the fund mainly invests in large-cap U.S. companies with above-average dividend yields across sectors such as

financials, consumer staples, health care, industrials, energy, and utilities (*Exhibit 1*). VYM is best suited for medium-to-long-term investors (usually 5-10+ years) looking for a balance between income and capital appreciation because of its wide investment scope, strict index tracking, and affordable costs.

Performance in recent five years

The most consistently reported recent five-year performance data is as of **September 30, 2025**.

Period	Average Annual Total Return (NAV)	Average Annual Total Return (Market price)
5 years	15.13%	15.11%

The total return represents the full picture of an investment’s performance, combining both price appreciation and income from dividends. For a dividend-focused ETF like VYM, a substantial portion of its total return comes from reinvested dividends, which form the core of its strategy. To assess the fund’s consistency and volatility over time, examining its annual total returns by calendar year (based on Net Asset Value as of December 31st each year) provides valuable insight into how VYM has performed across different market conditions within the five-year period.

Calendar year	2024	2023	2022	2021	2020
Total return (NAV)	17.60%	6.53%	-0.42%	26.14%	1.14%

The 5-year average of over 15% demonstrates strong performance, but it includes periods of very high growth (like 2021 and 2024) and near-flat or slightly negative returns (like the dividend-focus resilience in 2022 and the modest return in 2020). The negative return in 2022 highlights that VYM, despite its focus on value and dividends, is not immune to broad market declines. The low correlation to the overall stock market during various years (e.g., in 2022, when it outperformed the S&P 500, or in 2021, when it lagged the high-growth tech sector) reflects its "value" and "dividend-focus" investing style.

Risk and Return Analysis

Risk Management

Employ rule-driven index tracking strategies for risk management. The portfolio is broadly diversified across large-and mid-cap high-dividend companies in the U.S., reducing individual stock and non-systematic risk. To avoid unintentional concentration, allocations adhere to weights specified by the index. To guarantee that style of risk results from intentional selection rather than unintentional drift, sector and style exposures (value/dividend factor biases) are continuously monitored. Rebalancing and position adjustments align with index rhythms to control drift and turnover. To reduce market impact, expenses and trading activity are paced to match liquidity conditions in the underlying holdings. Investors in VYM, on the other hand, remain vulnerable to market risk, as the sector tilts toward high-dividend industries, as well as remain exposed to the possibility that dividend-paying businesses underperform the equity market. There is also dividend sustainability risk, where in times of economic stress, companies may cut or stop paying dividends altogether, possibly lowering both income and total return.

Standard deviation

To calculate the standard deviation of VYM, we used the data provided by Yahoo Finance and Vanguard's official VYM webpage. With the data we collected, we found the standard deviation to be 0.1512 (15.12%). The 3-year standard deviation provided by the website is 13.64%, while the 5-year and 10-year standard deviations are 14.64% and 14.24% respectively.

Portfolio Beta

With the given historic data, we calculated the Portfolio Beta for VYM by first computing the covariance and variance between the fund and the market, and using this data, finally computing the Beta to be 0.9984. Additionally, Yahoo Finance provided us with the Beta of the fund over the last 3, 5 and 10 years with the respective values being 0.85, 0.8 and 0.84 respectively, which shows that VYM has been less volatile, making it a low risk, defensive fund.

Sharpe Ratio

This ratio is calculated to help investors understand the return of an investment when compared to its risk. To calculate the Sharpe Ratio, we reduce the risk-free rate from the return of portfolio and divide that value by the standard deviation of the portfolio's excess return. Using this computation, we found the Sharpe Ratio for VYM to be 0.6797 which tells us that VYM provides reasonable returns for the volatility it exposes the investors to. It suggests that the fund provides stable performance while maintaining its lower volatility strategy.

Jensen Alpha

Jensen Alpha is a measure used to evaluate the performance of an investment portfolio relative to a benchmark index. It evaluated how well an investment performs against the market, adjusting for the level of risk. To calculate the Jensen Alpha for VYM, we estimated the Beta, considered the fund's return, the market's return, and the risk-free rate, and plugged these values in to calculate the Jensen Alpha to be 0.0319.

Rp: 0.1169

Rf: 0.0142

Rm: 0.0852

B: 0.9984

Therefore, alpha: 0.0319

A positive alpha of 0.0319 means the fund performed better than its benchmark based on the risk.

Treynor Index

The Treynor index measures the performance of a portfolio, adjusting the risk by analyzing its excess return per unit of risk. It essentially tells us how much return an investment earns against the risk it undertakes. To calculate the Treynor Index for VYM, we used the portfolio return, the risk free return and the Beta of the portfolio, to find the value to be 0.1029, which means that the mutual fund earned 10.29% excess return over the risk free rate for each unit of Beta, suggesting a string performance relative to the market risk.

Expected Return Goal

In the calculation of the CAPM model, a beta coefficient of 0.85 is achieved from VYM face sheet 5y beta. The U.S three months treasury bill yield is reported as 3.73% as of October 31, 2025. We obtained a market rate of 15.91 with the assumption of utilizing the 5-year average annualized rate from the S&P 500 (as reported by Morningstar). Through the obtained values, the expected return on VYM comes down to 14.08%.

Expected Return = Risk-free Rate + Beta \times (Market Return - Risk-free Rate).

Risk-free Rate (R_f) = 3.73% Beta (β) = 0.85 Market return (R_m) = 15.91%

$$E(R) = 3.73\% + 0.85 \times (15.91\% - 3.73\%) = 14.08\%$$

VYM produced a realized return of 15.11%, which was slightly higher than the 14.08% CAPM estimate. Given its approximately 0.85 beta dividend/value tilt, VYM is able to take advantage of the market's strength, which is consistent with a strong equity backdrop

Fund Characteristics

Total Fund Assets

As of October 2025, VYM held approximately \$81.3 billion in total net assets, making it one of the largest dividend-focused ETFs in the U.S. market. Its substantial asset base reflects strong investor confidence in Vanguard's low-cost index strategy, while also providing high liquidity, minimal tracking error, and cost efficiencies through economies of scale.

Turnover Ratio

VYM has a low turnover ratio of 13%, reflecting its passive approach to replicating the FTSE High Dividend Yield Index rather than actively trading. This low trading frequency helps reduce transaction costs and taxable gains, supporting the fund's cost efficiency and long-term stability.

Number of Holdings

As of October 2025, VYM holds 566 stocks invested in different industries (*Exhibit 1*), mirroring the composition of the FTSE High Dividend Yield Index (565 stocks) and ensuring broad diversification across large-cap U.S. equities (VYM, 2025).

Fee structure

VYM maintains a low expense ratio of 0.06%, meaning investors pay only \$0.60 per \$1,000 invested. This cost efficiency, supported by Vanguard's investor-owned structure and passive strategy, helps the fund minimize overhead and closely track its benchmark, making it one of the most cost-effective dividend ETFs.

Investor suitability for the fund

VYM is a low-cost fund made up of large U.S. companies that pay relatively high dividends, providing both income and diversification. It's generally suitable for long-term investors who are comfortable with normal stock market ups and downs and prefer steady, established companies over aggressive growth. It can be a useful part of a broader portfolio, but it may not fit someone who needs high income right away, has a short investment timeframe, or wants very low risk. The fund is still exposed to market swings and dividends can vary, so it won't eliminate volatility.

Actual Returns

1-Year, 3-Year, and 5-Year Returns

As of September 30, 2025, based on official VYM report data, the annualized performance of the VYM was: 12.93% over the past year, 17.53% over the past three years, and 15.11% over the past five years (*Exhibit 2*). The report usually computes performance using the fund's net asset value (NAV) to more accurately reflect actual returns. This computation includes the applicable fees paid during the reinvestment process and assumes that all dividends' distributions are automatically reinvested at the current NAV during the period.

Returns Before and After Fees

VYM reports performance on a net return basis after fees (net). The disclosure materials explicitly state: "Less than one year is cumulative; all others are annualized averages. All returns assume dividend reinvestment and net of fees." When comparing the FTSE High Dividend Yield Index benchmark, no further fee adjustment to the benchmark is required. To estimate pre-fee returns, add approximately 0.06% for the fund's expense ratio to the net returns. Compared to its benchmark, which returned about 15.19%

annually, VYM (NAV) achieved an annualized return of 15.13%. The annualized difference of about 6 basis points aligns with the 0.06% expense ratio, demonstrating the characteristic of “low fees → low tracking error.” Strong cost efficiency and tight index tracking performance are demonstrated by its exceptionally low expense ratio and the long-term observed difference of just a few basis points between its NAV returns and the benchmark.

Benchmark Comparison

	1-year	3-years	5-years
VYM NAV return	12.97%	17.57%	15.13%
FTSE High Dividend Yield Index	13.02	17.63	15.19

The FTSE High Dividend Yield Index serves as the benchmark tracked by VYM. It follows a rules-based, market-cap-weighted methodology that measures the performance of U.S. companies with above-average dividend yields, excluding REITs. VYM replicates the index composition through passive indexing, which helps maintain low turnover and a minimal expense ratio of 0.06%, effectively limiting tracking error.

As shown in *Exhibit 2*, the performance gap is approximately 0.05–0.06 percentage points across all time horizons, consistent with the fund’s expense ratio of 0.06. This small, stable difference demonstrates that VYM’s slight underperformance is fully attributable to management fees, confirming strong cost efficiency and high tracking accuracy relative to the benchmark.

Performance analysis

Overall, VYM has shown strong index-tracking efficiency over the past 1–5 years, with return differences versus the FTSE All-World High Dividend Yield Index proxy remaining within a few basis points, consistent with its 0.06% expense ratio. Nearly identical market price and NAV performance

indicate high liquidity, while low turnover and broad exposure to established dividend-paying firms reinforce stable income generation and disciplined long-term index adherence.

Conclusion

The fund's disclosures to investors are adequate as its performance, fee structure, portfolio composition and risk consideration are clearly reported and consistent across the different official sources. Moreover, based on its low turnover, stable risk profile and tight return alignment to the with the FTSE All-World High Dividend Yield Index used as the benchmark proxy, VYM clearly adheres to its stated objective of passively tracking a high-dividend, market-cap-weighted index.

Exhibits

Exhibit 1:

Sector Weightings

Sector		VYM
Financial Services	<div></div>	21.77%
Technology	<div></div>	16.21%
Healthcare	<div></div>	12.76%
Industrials	<div></div>	11.36%
Consumer Defensive	<div></div>	11.22%
Energy	<div></div>	8.55%
Consumer Cyclical	<div></div>	7.42%
Utilities	<div></div>	5.97%
Communication Services	<div></div>	2.73%
Basic Materials	<div></div>	1.98%
Real Estate		0.02%

Exhibit 2:

Performance history

Total returns ² for period ended September 30, 2025

VYM (Inception 2006-11-10)	Quarter	Year to date	1 year	3 years	5 years	10 years	Since inception
Net asset value (NAV) return ³	6.38%	12.66%	12.97%	17.57%	15.13%	11.86%	8.94%
Market price return ⁴	6.36	12.61	12.93	17.51	15.11	11.86	8.94
FTSE High Dividend Yield Index	6.39	12.71	13.02	17.63	15.19	11.92	9.02

References

Brewer, Reuben Gregg. “VYM Is a Popular Dividend ETF for Passive Income. But Is It the Best?”

Nasdaq.com, 2025, www.nasdaq.com/articles/vym-popular-dividend-etf-passive-income-it-best.

Vanguard ® Vanguard High Dividend Yield ETF | VYM. 30 Sept. 2025.

<https://fund-docs.vanguard.com/F0923.pdf?>

“VYM-Vanguard High Dividend Yield ETF | Vanguard.” Vanguard.com, 2025,

<https://investor.vanguard.com/investment-products/etfs/profile/vym#fund-management>

Vanguard. “Vanguard - Vanguard Prospectus and Reports.” Vanguard.com, 2024,

<https://personal.vanguard.com/us/faces/JSP/Funds/ProspRep/FundProspectusReportsWinJSP.jsp?fundId=0923&isReqFromProducts=true>

3-Month Treasury Bill Secondary Market Rate, Discount Basis

<https://fred.stlouisfed.org/series/DTB3>

<https://finance.yahoo.com/quote/VYM>

<https://www.morningstar.com/indexes/spi/spx/performance>