Investment Insights

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Xtrackers by DWS

The Xtrackers S&P 500 ESG ETF (SNPE): How has ESG Impacted Investment Returns?

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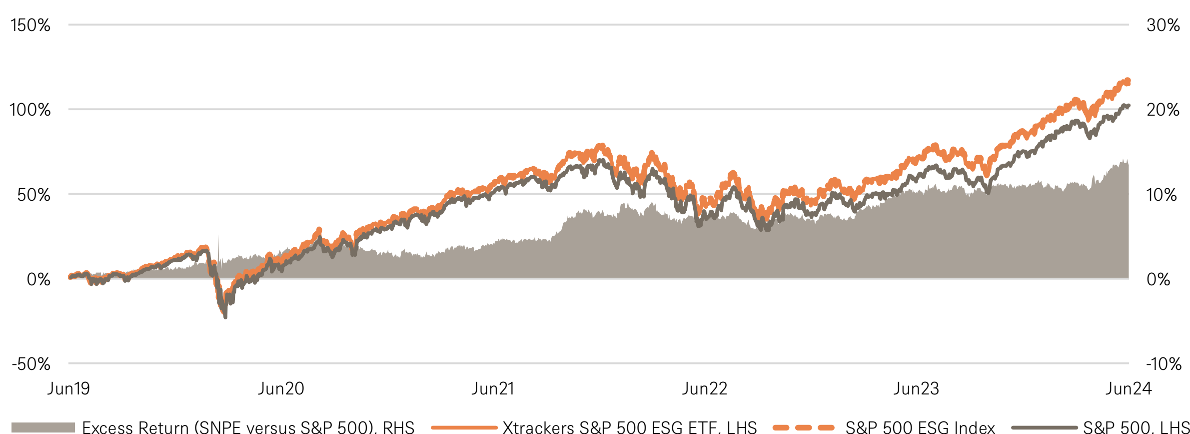
As the market recognizes the five-year anniversary of the Xtrackers S&P 500 ESG ETF (SNPE)), it is worthwhile to revisit important risk and return observations, as well as the components of the underlying index construction. We believe that it is an appropriate time to ask and answer the question: **Has the incorporation of ESG factors into a portfolio led to investment outperformance against a broad market benchmark?** A review of the five-year performance of SNPE versus the S&P 500 allows us to affirmatively answer this question. Upon examining the cumulative five-year performance, it is evident that the SNPE has demonstrated favorable performance relative to the S&P 500. Specifically, it has outperformed by 13.5% on a cumulative basis, or about 1.5% per annum as shown in Figure 1:

Figure 1: Since inception cumulative performance of Xtrackers S&P 500 ESG ETF and S&P 500 Index (6/30/2019 to 6/30/2024)



Source: Bloomberg L.P., S&P Dow Jones Indices LLC, DWS Calculations as of 30 June 2024. Past performance is not indicative of future results. It is not possible to invest directly in an index.

Figure 2: Returns statistics for Xtrackers S&P 500 ESG ETF and S&P 500 Index (6/30/2019 to 6/30/2024)

TOTAL RETURNS	1-YEAR (ANNUALIZED)	3-YEAR (ANNUALIZED)	5-YEAR (ANNUALIZED)	SINCE INCEPTION (ANNUALIZED)	SINCE INCEPTION (CUMULATIVE)
SNPE (NAV)	26.97%	11.50%	16.54%	16.75%	116.68%
SNPE (Price Return)	26.89%	11.47%	16.53%	16.74%	116.52%
S&P 500 ESG Index	27.15%	11.63%	16.67%	16.89%	117.94%
S&P 500 Index	26.67%	10.08%	15.05%	15.27%	103.26%

Source: Bloomberg L.P., S&P Dow Jones Indices LLC, DWS Calculations as of 30 June 2024. Performance quoted represents past performance and does not guarantee future results. Investment returns and principal value of an investment will fluctuate so that 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. Shares are bought and sold at market price (closing price) not net asset value (NAV) and are not individually redeemed from the Fund. Market price returns are based on the midpoint of the bid/ask spread at 4:00 Eastern Time (when NAV is normally determined) and do not represent the return you will receive if you traded at other times. To obtain the most recent month-end performance data visit www.Xtrackers.com or call 844-851-4255.

This noteworthy excess return has been achieved with a risk level that aligns with the S&P 500. The Xtrackers S&P 500 ESG ETF has exhibited nearly identical annualized volatility of 18.1% versus 18% for the S&P 500 parent index. Similarly, the empirical beta of SNPE in relation to the parent index was 1.01, meaning that the higher empirical return was achieved without incurring any materially higher volatility or market risk (see Figure 3).

Figure 3: Risk and Returns statistics for Xtrackers S&P 500 ESG ETF versus S&P 500 Index (6/30/2019 to 6/30/2024)

	XTRACKERS S&P 500 ESG ETF	S&P 500 ESG INDEX	S&P 500 INDEX
Return (annualized)	16.53%	16.67%	15.05%
Beta	1.01	1.00	1.00
Volatility (annualized)	18.10%	18.06%	17.93%
Sharpe Ratio	0.82	0.83	0.76
Tracking Error	1.56%	1.34%	

Source: Bloomberg L.P., S&P Dow Jones Indices LLC, DWS Calculations as of 30 June 2024. Past performance is not indicative of future results. It is not possible to invest directly in an index.

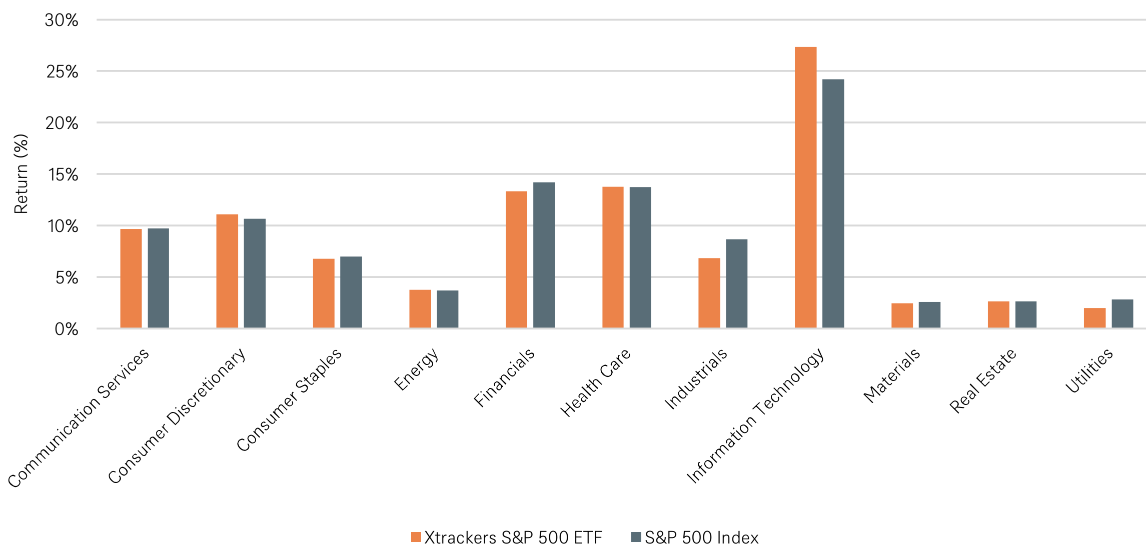
The tracking error, which measures the volatility of the difference between the Xtrackers S&P 500 ESG ETF and the S&P 500 Index returns, was roughly 1.6% per annum. This is a result from the index methodology that refines the S&P 500 into a subset of roughly 375 companies, representing three-quarters of the companies in the S&P 500. This more concentrated ESG index begins with the exclusion of companies involved in contentious areas such as tobacco or controversial weapons, as well as companies not adhering to the principals of the United Nations Global Compact ("UNGC"). After these exclusions, companies are scored within their respective GIC industry groups, and the bottom quartile of ESG scores within each industry group is subsequently excluded. The schema for the S&P 500 ESG Index methodology is depicted in Figure 4.

Figure 4: S&P 500 ESG Methodology

Source: S&P Dow Jones Indices LLC. Chart is provided for illustrative purposes.

Upon comparing the average sector exposure of SNPE since its inception on June 26, 2019, the difference is negligible. This is a reasonable outcome, given the index methodology excludes the lowest 25% of ESG scoring companies within each GICS Industry Group. This exclusion is designed to maintain relative sector neutrality versus the S&P 500. Consequently, the index is able to favor companies with higher ESG scores while simultaneously mitigating the risk of significant portfolio differences that could stem from pronounced sector biases. Figure 5 shows the average sector weighting of both the SNPE ETF and the S&P 500 Index, which reveals the most significant deviation to be an average overweight in the Information Technology sector. This deviation is primarily driven by the strong performance of SNPE's Information Technology holdings, that resulted in positive market drift.

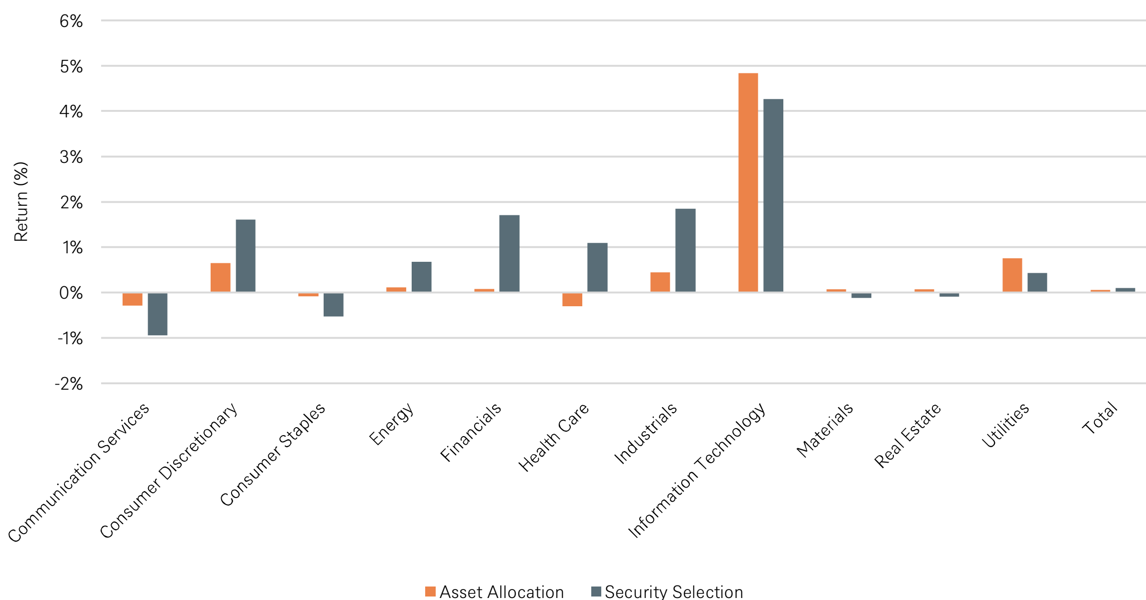
Figure 5: Xtrackers S&P 500 ESG ETF versus S&P 500 Index sector weights (6/30/2024)



Source: Bloomberg L.P., S&P Dow Jones Indices LLC, DWS Calculations as of 30 June 2024. Subject to change.

The application of the ESG screening methodology within sectors, as opposed to across sectors, helps to maintaining minor sector deviations relative to the S&P 500. Consequently, the excess return over the past five years can be partially attributable to sector differences. As shown in Figure 6, nearly two-thirds of the cumulative excess return is due to the strong performance of stocks within each sector, with a little over one-third attributed to sector tilts as a result of market drift. In particular, strong performance of the Information Technology holdings within SNPE has led to an increase in the weight of the Information Technology sector, both in absolute terms and relative to the S&P 500 Index.

Figure 6: 5-year sector attribution of Xtrackers S&P 500 ESG ETF versus S&P 500 index (6/30/2019 to 6/30/2024)



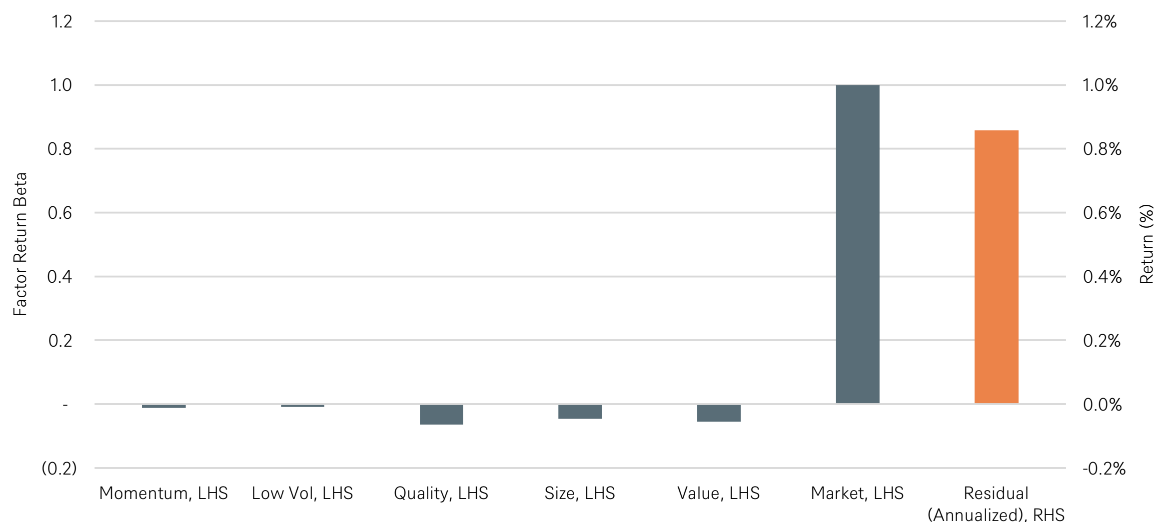
Source: Bloomberg L.P., S&P Dow Jones Indices LLC, DWS Calculations as of 30 June 2024. Subject to change.

Given that SNPE has outperformed the S&P 500 since its inception and considering the relatively high degree of sector neutrality the index maintains relative to the S&P 500, the question becomes whether this historical outperformance could

have been explained through any other well-established risk factor. One approach to explaining ex-post excess returns is to test the returns against well-known factors. In this case, we consider Beta (which we've already established to be 1), as well as five of the most well-documented investment style factors: Size, Value, Momentum, Low Volatility, and Quality.

Upon conducting a multi-variable regression of the S&P 500 ESG Index against these five factors (plus the market), the results reveal little explanatory power associated with any single factor (see Figure 7). In other words, about two-thirds of the 1.5% excess return over the past five years cannot be explained by these factors, while only one-third can be attributed to them.

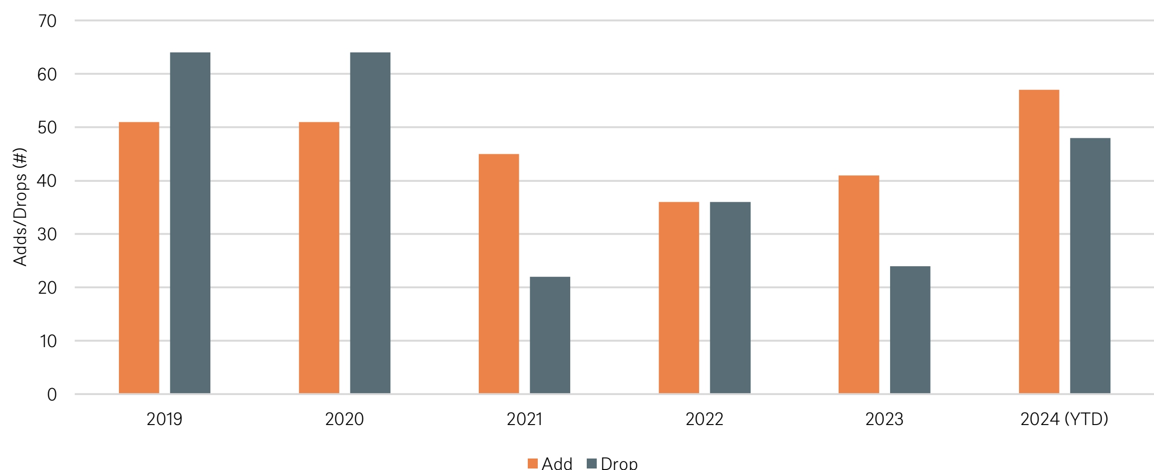
Figure 7: Market and factor betas using returns (6/30/2019 to 6/30/2024)



Source: Bloomberg L.P., S&P Dow Jones Indices LLC, DWS Calculations as of 30 June 2024.
*Residual refers to the unexplained component of return when regressed against the market and the five factors.

When examining the index methodology, it is important to remember that ESG scores are designed to be dynamic, not static. Companies demonstrating enhancements in their environmental, sustainability, and governance practices should be re-warded with positive momentum in these scores, potentially leading to their inclusion in the S&P 500 ESG Index. Conversely, companies who do not remain prudent in these practices face the potential risk of exclusion from the S&P 500 ESG Index, should their ESG scores decline. As illustrated in Figure 8, the S&P 500 ESG Index has seen a varying number of ESG-related additions and removals over the past five calendar years, reflecting changes in ESG scores.

Figure 8: S&P 500 ESG Index adds or drops not from parent index changes (12/31/2018 to 6/30/2024)



Source: Bloomberg L.P., S&P Dow Jones Indices LLC, DWS Calculations as of 30 June 2024.

Case study: ESG score impact on index eligibility

The S&P Global ESG Score measures a company's performance on and management of material ESG risks, opportunities, and impacts via the S&P Global Corporate Sustainability Assessment (CSA). The Score measures a company's performance compared to their industry peers, evaluated on approximately 35 key sustainability topics across the ESG spectrum, each given a specific weight in the scoring calculation, which is then aggregated into a 0–100 scale. The Index is rebalanced annually to reflect the change in ESG scores of all the companies in the S&P 500 Index.

Inclusion Example: Oil and Natural Gas Company

This company, classified in the Energy industry group, scored higher relative to its industry peers for Waste Disposal, as the corporate data showed a decline in amount of waste disposed in the past five years. The public disclosure of this information also enhanced their ESG score. The company also scored highly in the areas of Occupational Health & Safety and Corporate Governance.

Exclusion Example: IT Services company

This IT services company was not selected due to its score being within the worst 25% of ESG scores of its global GICS Industry Group. The company refused to disclose information relating to its environmental management policies, resulting in an ESG score excluding them from the Index.

Conclusion

As we commemorate the five-year anniversary of SNPE and reevaluate its investment performance, we can observe an approximate 1.5% of annualized excess return relative to the S&P 500. While past performance is not a guarantee of future returns, we can test this empirical outperformance against several different metrics to conclude that these strong returns were not solely driven by an overweight in one sector or exposure to a single factor. An examination of both sectors and factors reveals that neither individually accounts for the majority of this outperformance. We can therefore conclude that over the past five years, the sector level stock selection methodology utilized by the S&P 500 ESG Index has been instrumental in generating most of its excess returns relative to the S&P 500 Index.

Investing in ESG at a foundational level relies on the belief that companies should be rewarded for proactively addressing ESG concerns and preparing themselves for a more environmental, socially, and governance-conscience global economy and capital markets. As capital increasingly gravitates towards more sustainable businesses and operating models, companies that align themselves with a more sustainable future may attract greater capital flows compared to companies that could be adversely affected by these regulatory or economic shifts.

Glossary

Annualized Return: An annualized total return is the geometric average amount of money an investment earns each year over a given period. The annualized return formula is calculated as a geometric average to show what an investor would earn over some time if the annual return were compounded.

Beta: Beta is a measure of volatility that captures a security's systematic risk according to the capital asset pricing model.

ESG: Environmental, social and governance (ESG) issues refer to non-financial issues that may affect the sustainability of an investment.

Exchange Traded Funds (ETFs): Exchange traded funds (ETFs) are a sort of exchange traded product (ETP) that can hold a variety of underlying assets and that can be traded on a stock market.

Factor Investing: Factor investing is a strategy that chooses securities on attributes that are associated with higher returns.

Global Industry Classification Standard (GICS): The Global Industry Classification Standard (GICS) is an industry taxonomy developed in 1999 by MSCI and Standard & Poor's (S&P) for use by the global financial community. The GICS structure consists of 11 sectors, 25 industry groups, 74 industries and 163 sub-industries into which S&P has categorized all major public companies.

Low Volatility Factor: The Low Volatility factor refers to the tendency of stocks with lower price fluctuations to outperform their higher-volatility counterparts over the long-term, particularly on a risk-adjusted basis.

Momentum Factor: The Momentum factor is a measure of how much a stock has risen in price over the past year relative to other stocks. It is used to implement a momentum strategy, which takes advantage of the tendency of stocks to maintain recent price trends.

Quality Factor: The Quality factor is a fundamental characteristic of a company's financial health and performance, used to identify stocks that are expected to provide long-term returns with low risk, generally characterized as having steady earnings growth, high profitability, low debt-to-equity ratio, and consistent dividend payout.

S&P 500 ESG Index: The S&P 500 ESG Index is a broad-based, market-cap-weighted index that is designed to measure the performance of securities meeting sustainability criteria, while maintaining similar overall industry group weights as the S&P 500.

S&P 500 Index: The S&P 500 is an index that includes 500 leading U.S. companies capturing approximately 80% coverage of available U.S. market capitalization.

Sectors: Sectors are used to classify economic activity by grouping companies that are engaged in similar business activities.

Sector Attribution: The performance attributed to holding a different weight for each sector in the portfolio relative to the benchmark.

Sector Neutral: Sector Neutral is a relative term implying a portfolio has sector weights equal to its benchmark.

Sharpe Ratio: The Sharpe ratio puts an asset's excess return (the return above the risk-free rate) in relation to the asset's risk as measured by its standard deviation.

Size Factor: The Size factor is the difference in returns between small-cap and large-cap companies. Historically, small-cap companies have outperformed large-cap companies. This trend has been observed in the US equity markets for over 80 years.

SNPE ETF: The Xtrackers S&P 500 ESG ETF seeks investment results that correspond generally to the performance, before fees and expenses, of the S&P 500 ESG Index.

Tracking Error: Tracking error is an unwanted deviation between, for example, an index fund and a portfolio.

United Nations Global Compact: The United Nations Global Compact is a non-binding United Nations pact to get businesses and firms worldwide to adopt sustainable and socially responsible policies, and to report on their implementation.

Value Factor: The Value factor refers to a set of characteristics that help investors identify undervalued stocks with the potential for long-term capital appreciation, capitalizing on the market's inefficiencies to generate superior risk-adjusted returns.

Volatility: Volatility is the degree of variation of a trading-price series over time. It can be used as a measure of an asset's risk.

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Investing involves risk, including the possible loss of principal. Incorporation of ESG criteria in the fund's investment strategy does not guarantee a return or protect against loss, limits the types and number of investment opportunities available to the fund and, as a result, the fund may underperform other funds that do not have an ESG focus. Stocks may decline in value. Stocks of medium-sized companies involve greater risk than securities of larger, more-established companies. Funds investing in a single industry, country, or in a limited geographic region generally are more volatile than diversified funds. Performance of the fund may diverge from that of the Underlying Index due to operating expenses, transaction costs, cash flows, use of sampling strategies, or operational inefficiencies. The fund is non-diversified and can take larger positions in fewer, increasing its potential risk. An investment in this fund should be considered only as a supplement to a complete investment program for those investors willing to accept the risks associated with the fund. Please read the prospectus for more information.

ESG Definition: Environmental, social, and governance (ESG) criteria are a set of standards for a company's operations that socially conscious investors use to screen potential investments: Environmental (how a company performs as a steward of nature); Social (how a company manages relationships with employees, suppliers, customers, and communities); Governance (company's leadership, executive pay, shareholder rights, etc.).

ESG investment strategy risk: The Underlying Indices' ESG methodology, and thus the Funds' investment strategy, limits the types and number of investment opportunities available to the Funds and, as a result, the Fund may underperform other funds that do not have an ESG focus. The Underlying Index's ESG methodology may result in the Fund investing in securities or industry sectors that underperform the market as a whole or underperform other funds screened for ESG standards. In addition, the index provider may be unsuccessful in creating an index composed of companies that exhibit positive ESG characteristics.

Xtrackers S&P 500 ESG ETF seeks investment results that correspond generally to the performance, before fees and expenses, of the S&P 500 ESG Index. The S&P 500 ESG Index is a broad-based, market-cap-weighted index that is designed to measure the performance of securities meeting sustainability criteria, while maintaining similar overall industry group weights as the S&P 500. The index excludes companies with disqualifying UN Global Compact scores and business involvement in tobacco, controversial weapons, and thermal coal, then targets 75% of the float market capitalization of each GICS Industry Group within the S&P 500, using an ESG score as the defining characteristic.

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