

# The S&P 500<sup>®</sup> ESG Index: Defining the Sustainable Core

## Contributors

**Margaret Dorn**  
Senior Director  
Head of ESG Indices  
North America  
[margaret.dorn@spglobal.com](mailto:margaret.dorn@spglobal.com)

**María Sánchez, CIPM**  
Director, ESG Product Strategy  
Latin America  
[maria.sanchez@spglobal.com](mailto:maria.sanchez@spglobal.com)

**Stephanie Rowton**  
Director  
ESG Indices  
[stephanie.rowton@spglobal.com](mailto:stephanie.rowton@spglobal.com)

## Introduction

The launch of the [S&P 500 ESG Index](#) in April 2019 signaled an evolution in sustainable investing. Indices based on environmental, social and governance (ESG) data were no longer simply a means for companies to declare their sustainability credentials or tools to manage tactical investments playing a minor role in investors' portfolios. The S&P 500 ESG Index and other such indices were built to underlie strategic, long-term mainstream investment products.

For decades, companies that manage their business with various stakeholders and objectives in mind have been included in ESG indices such as the Dow Jones Sustainability Indices. However, these pioneering, best-in-class indices tended to be narrow, including only a small selection of the top ESG performers. This presented challenges to individual and institutional investors who were concerned about the risks inherent in highly concentrated portfolios defined by these indices.

The S&P 500 ESG Index addresses the need for an index that incorporates ESG values while maintaining similar overall industry group weights as the [S&P 500](#). Intentionally broad—including over 300 of the original S&P 500 companies—the S&P 500 ESG Index seeks to reflect many of the attributes of the S&P 500 itself, while providing an improved sustainability profile as a result of an updated ESG Score.

This paper outlines the characteristics of the S&P 500 ESG Index that have appealed to investors, including:

- The easy-to-understand methodology behind the index;
- The historically similar risk-adjusted performance profiles of the S&P 500 ESG Index and the S&P 500;
- How the ESG characteristics of the S&P 500 ESG Index are improved compared with those of the S&P 500; and
- Specific examples demonstrating how the S&P 500 ESG Index methodology sorts and selects companies.

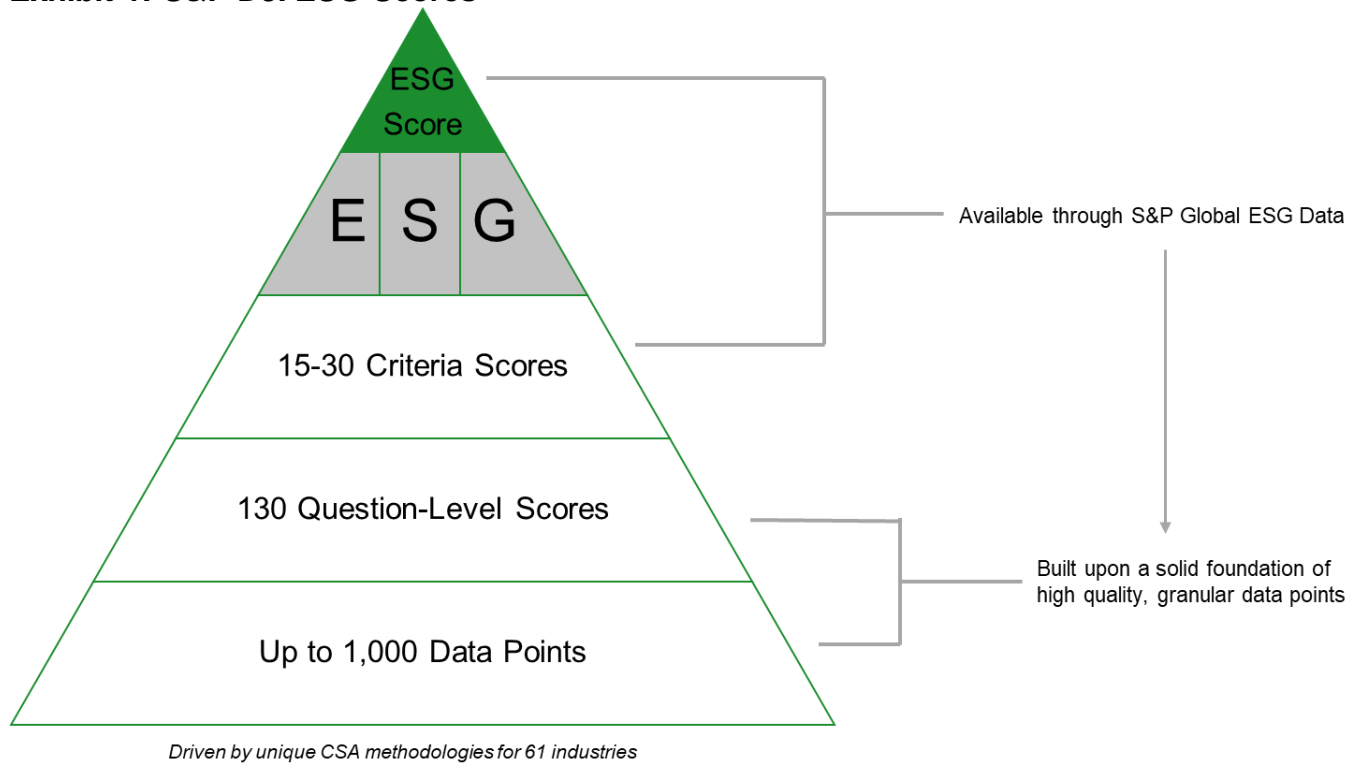
## The S&P DJI ESG Scores: Building Blocks for Indices

The key to understanding the S&P 500 ESG Index is the data that determines its composition, in particular, the S&P DJI ESG Scores.

The S&P DJI ESG Scores have foundations in over two decades of ESG research and use data gathered through the annual Corporate Sustainability Assessment (CSA). The CSA has become a leading standard in its own right as the definitive guidebook and grading system for corporations, quantifying their progress on sustainability topics and their ESG performance in relation to their peers.

The granular, industry-specific data gathered directly from companies and from publicly available sources through the CSA differentiates the S&P DJI ESG Scores from other ESG scores. Through this robust research process as well as direct interaction with companies, S&P Global ESG Research is able to collect up to 1,000 data points per company. These data points are then transformed into the S&P DJI ESG Scores (see Exhibit 1).

**Exhibit 1: S&P DJI ESG Scores**

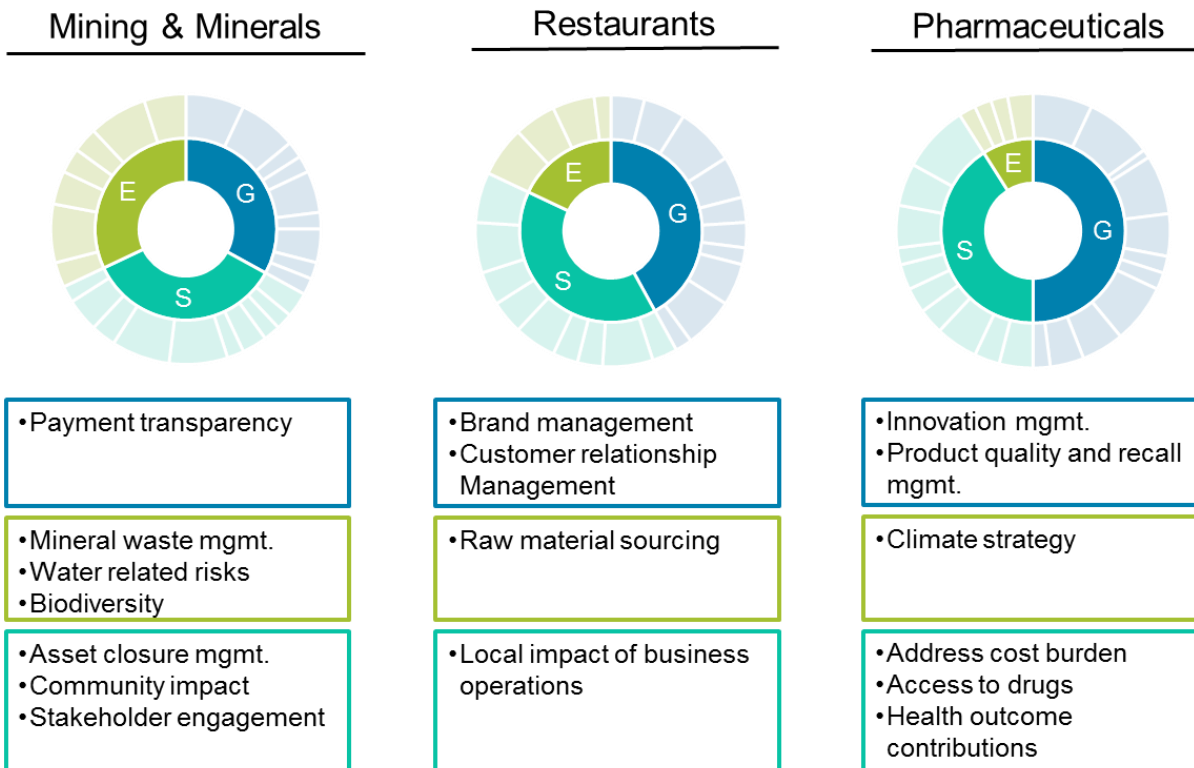


Source: S&P Dow Jones Indices LLC. Chart is provided for illustrative purposes.

Through its long investment experience<sup>1</sup> using the granular data it collected, S&P Global ESG Research is able to identify material factors uniquely relevant to 61 different industries. Collecting and scoring data according to these factors ensures that companies included in the S&P 500 ESG Index have been measured based on the sustainability issues that are most relevant to them. This is done by weighting issues according to their relevance, industry by industry, as determined by how likely issues are to arise and their level of impact if they do. Exhibit 2 shows how weights assigned to issues in different industries can vary greatly based on materiality.

<sup>1</sup> S&P Global ESG Research was originally SAM, part of RobecoSAM, an active investment manager, and gathered ESG data to inform RobecoSAM's portfolio managers' investment decisions.

## Exhibit 2: Material Issues in Select Industries



Source: S&P Global. Chart is provided for illustrative purposes.

Once initial weights are assigned, two important refinements are made to ensure scores are suitable for use in an index and thus transformed from the S&P Global ESG Scores into the S&P DJI ESG Scores.<sup>2</sup> First, we address information gaps that may exist for companies that do not participate directly in the CSA.<sup>3</sup> If a company does not report on a given issue, but a standard for transparency has not been reached on this issue in its industry, the company is not penalized for this missing data by receiving a zero.<sup>4</sup> Instead, the weight of the question is redistributed to other questions. The relevant standard of industry disclosure is determined by S&P Global ESG Research.

Second, the S&P DJI ESG Scores are normalized at the industry level to ensure that the scores of companies are comparable, as certain industries can have scores that are tightly grouped or skewed relative to the scores of companies in other industries. This normalization ensures companies' relative positions are comparable for screening, sorting and selecting index constituents.

<sup>2</sup> The S&P Global ESG Scores, which are used in the Dow Jones Sustainability Indices, are similar to the S&P DJI ESG Scores but do not include an adjustment for transparency or undergo normalization.

<sup>3</sup> More detail on the CSA process and methodology is available [here](#).

<sup>4</sup> S&P DJI's transparency standard and other information regarding the S&P DJI ESG Scores can be found in "[Frequently Asked Questions: S&P DJI ESG Scores](#)."

# Index Construction

The S&P 500 ESG Index leverages the S&P DJI ESG Scores and other data to define its constituents. Using the rules set forth in this section, the index is rebalanced on an annual basis, after the close of trading on the last business day of April.<sup>5</sup>

The index methodology was developed with two objectives:

- To maintain similar overall industry group weights as the S&P 500, which has historically resulted in similar risk-adjusted performance; and
- To avoid companies that are not managing their businesses in line with ESG principles, according to the S&P DJI ESG Scores and other relevant ESG data, while including companies that are doing so.

Although these two objectives could be perceived as running counter to each other, with methodological adjustments, the industry composition of the S&P 500 ESG Index is realigned with the S&P 500. These adjustments have resulted historically in a benchmark-like risk-adjusted performance profile.

## Methodology Summary

### Exclusions

Companies are excluded that:

- Have an S&P DJI ESG Score that falls within the bottom 25% of scores in their Global Industry Classification Standard® (GICS®) industry group—using a global universe of the combined constituents from the [S&P Global LargeMidCap](#) and [S&P Global 1200](#);
- Extract or generate electricity from thermal coal accounting for greater than 5% of their revenue;
- Produce or manufacture tobacco products, or derive more than 5% of their revenue from tobacco-related products and services;
- Are involved in controversial weapons, including cluster weapons, landmines, biological or chemical weapons, depleted uranium weapons, white phosphorus weapons, or

<sup>5</sup> Please see the [S&P ESG Index Series Methodology](#) for more information on the S&P 500 ESG Index.

nuclear weapons, or hold more than a 25% stake in a company involved in these activities;

- Are involved in the manufacturing or sale of small arms, have revenues from the retail or distribution of small arms that are above or equal to 5% or hold more than a 25% stake in a company involved in these activities;
- Manufacture military weapon systems or integral, tailor-made components of these weapons, or that provide tailor-made products or services that support military weapons with a revenue threshold greater than or equal to 10%;
- Have greater than or equal to 5% revenue coming from oil sands extraction; or
- Are deemed non-compliant in accordance with the 10 principles of the United Nations Global Compact (UNGC).<sup>6,7</sup>

## Constituent Selection and Weighting

Once the exclusions are made, the remaining eligible index constituents in the S&P 500 are selected in the following manner.

1. Companies are ranked by their S&P DJI ESG Score.
2. Within each GICS industry group, companies are selected from the top down by S&P DJI ESG Score to target 75% of the float-adjusted market capitalization of the original S&P 500 GICS industry group.

The index constituents are then weighted by their float-adjusted market capitalization.

## Quarterly Eligibility Review

Constituents are reviewed every quarter to ensure they remain eligible for inclusion with regards to their business activities and UNGC compliance. Any company that is deemed ineligible will be removed from the index and not replaced. This process ensures that the index reflects any changes to a company's eligibility in a timely manner, as well as maintaining adherence to the values of the objectives set within the methodology.

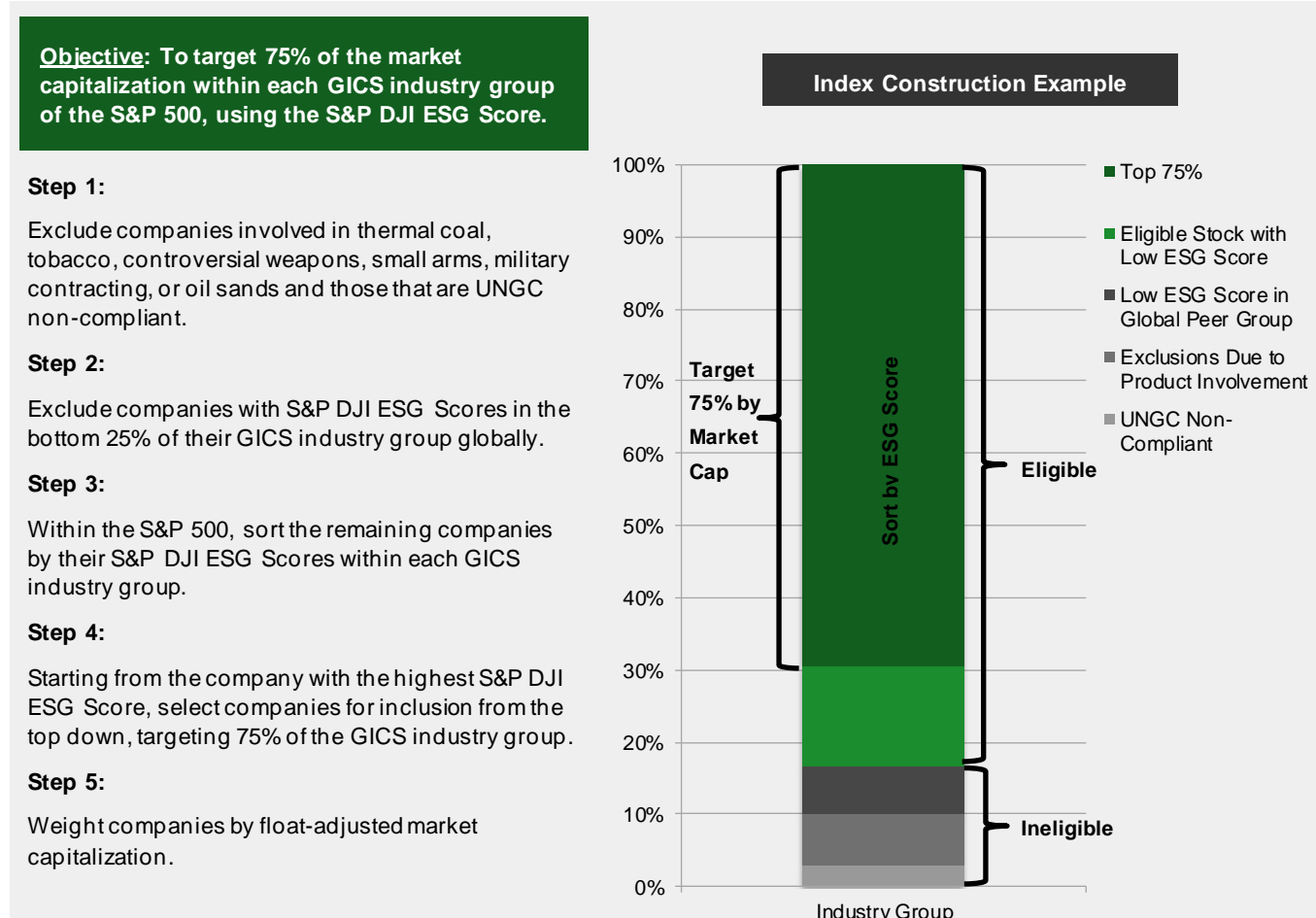
<sup>6</sup> The UN Global Compact, which was established in 2000, commits its signatories—companies and nations from around the world—to abide by principles related to human rights, labor, the environment and anti-corruption. For more information, see [www.unglobalcompact.org](http://www.unglobalcompact.org).

<sup>7</sup> Please refer to <http://www.sustainalytics.com> for more information.

## Controversies between Rebalances

When controversies unfold between annual rebalances of the S&P 500 ESG Index, S&P Global reviews these to consider whether a company’s S&P DJI ESG Score should be reduced. The S&P DJI Index Committee overseeing the index then determines whether the company should be removed. Controversies monitored by S&P Global include those related to economic crime and corruption, fraud, illegal commercial practices, human rights issues, labor disputes, workplace safety, catastrophic accidents and environmental disasters. Once a company is removed from the index, it is excluded for at least one full calendar year.

### Exhibit 3: The S&P 500 ESG Index Methodology Summary



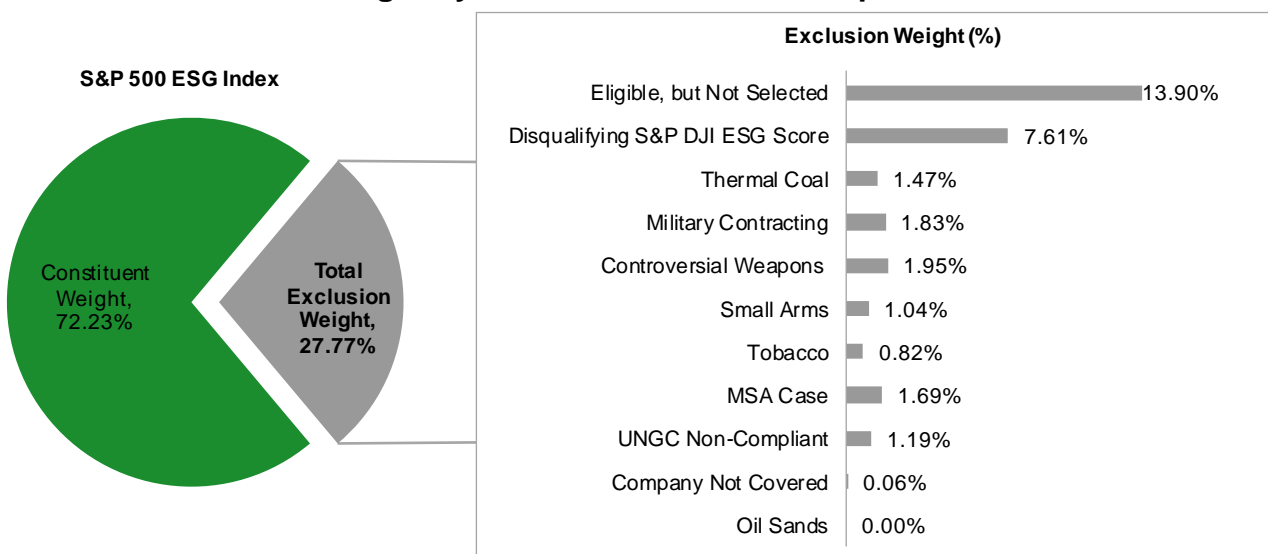
Overall, 196 constituents of the S&P 500 were excluded from the S&P 500 ESG Index, totaling 27.77% of the S&P 500 market capitalization as of April 29, 2022. Exhibit 4 ranks the reasons behind these exclusions.

### Exhibit 4: Reasons for Exclusion from the S&P 500 ESG Index

Reason for Exclusion	Number of Exclusions	Weight in S&P 500 (%)
Not Part of the Top 75% of Industry Group Market Cap	109	13.90
S&P DJI ESG Score in Bottom 25% of Industry Group Globally	50	7.61
Thermal Coal	16	1.47
Military Contracting	13	1.83
Controversial Weapons	11	1.95
Small Arms	7	1.04
Tobacco Production or Sales	4	0.82
Not Eligible Due to Prior Media & Stakeholder Analysis (MSA) Case	3	1.69
UNGC Non-Compliant	3	1.19
Company Not Covered	1	0.06
Oil Sands	0	0.00

Source: S&P Dow Jones Indices LLC. Data as of April 29, 2022. Table is provided for illustrative purposes. Constituents may be flagged according to multiple exclusion criteria; sums and weights may exceed totals.

### Exhibit 5: S&P 500 Index Weight by S&P 500 ESG Index Composition



Source: S&P Dow Jones Indices LLC. Data as of April 29, 2022. Chart is provided for illustrative purposes. Constituents may be flagged according to multiple exclusion criteria; sums and weights may exceed totals.



# Results & Performance

## Absolute S&P DJI ESG Score Improvement

Historically, the S&P 500 ESG Index has maintained similar levels of risk and return to the benchmark S&P 500, alongside numerous sustainability enhancements. At the index level, it achieved an 8.86% increase in its aggregate S&P DJI ESG Score as of the last rebalance.

## Realized ESG Potential

Another useful metric is the “realized ESG potential” of the index. This depicts how much of an S&P DJI ESG Score improvement was achieved by the ESG index relative to the maximum possible improvement that could have been attained by investing solely in the single highest-ranked company in terms of S&P DJI ESG Score.

While diversification requirements would make this approach undesirable in practice, it is nevertheless an interesting metric to contextualize the absolute S&P DJI ESG Score improvement relative to the starting characteristics of the benchmark universe. For example, in markets where companies are generally sustainable to begin with, it is harder to obtain a substantial increase in absolute S&P DJI ESG Score without incurring a loss of diversification and higher levels of tracking error. According to this measure, the S&P 500 ESG Index has realized more than 28% of the ESG potential of the benchmark, representing a meaningful boost for an ESG index that has still provided benchmark-like returns historically.<sup>8</sup>




## Real-World Benefits

Perhaps more interesting still are the real-world benefits represented by the enhanced sustainability profile of the S&P 500 ESG Index versus the S&P 500. Indeed, the S&P DJI ESG Scores account for myriad underlying sustainability metrics, driven by up to 1,000 real-world data points per company assessed. A small sampling of these enhancements is highlighted in Exhibit 6.

This subset of ESG impacts achieved by the S&P 500 ESG Index relative to the S&P 500 underpin the true value of this index. These benefits could enable market participants to comfortably align their investments with their values, without necessarily compromising their overall investment objectives.

<sup>8</sup> This realized ESG potential is calculated as the percentage difference between the aggregate S&P DJI ESG Scores of the S&P 500 ESG Index and the S&P 500 relative to the strategy’s maximum potential ESG improvement based on investing only in the single highest-ranked ESG scoring company in the benchmark. The S&P 500 ESG Index represents 28.7%  $((8.86)/(99.82 - 68.90))$  of the possible ESG improvement that the index could achieve (99.82 is the highest score in the S&P 500).

### Exhibit 6: Benefits of the S&P 500 ESG Index versus the S&P 500

	Environmental		Social		Governance
<b>15%</b>	More exposure to companies that have received an external assurance in relation to their environmental reporting.	<b>9%</b>	More exposure to companies that have a group-wide strategy that provides guidance to corporate citizenship/philanthropic activities, including alignment with the UN Sustainable Development Goals (SDG).	<b>8%</b>	More exposure to companies that promote and enhance an effective risk culture throughout their organizations, with a dedicated person reporting directly to executive management.
<b>8%</b>	More exposure to companies that have climate-related issues integrated into overall risk management and report on emission reduction targets and initiatives.	<b>8%</b>	More exposure to companies that disclose the type and coverage of the individual performance appraisals used for individual performance-related compensation and provide long-term incentives.	<b>7%</b>	More exposure to companies that have a publicly available code of conduct and anti-corruption and bribery policy and are not involved in any ongoing investigations related to corruption & bribery during the past four fiscal years.
<b>8%</b>	More exposure to companies that publicly report their Scopes 1 and 2 CO <sub>2</sub> e emissions, water consumption, waste and energy consumption data.	<b>7%</b>	More exposure to companies that have a policy in place for its commitment to respect human rights.	<b>7%</b>	More exposure to companies that have processes in place to prevent IT system interruptions, cyberattacks, a board director with relevant background in cybersecurity, and that have implemented policies and procedures for all employees.

Source: S&P Dow Jones Indices LLC. These are just a few examples of the numerous ways in which the S&P 500 ESG Index offers enhanced ESG representation. Increased index exposure to each ESG theme in the metrics above is calculated using the question-level data in S&P Global's CSA (2021 methodology year). These metrics are calculated using index data as of April 29, 2022, as the percentage difference between the performance of the S&P 500 ESG Index and its underlying index constituents across these metrics, on a weighted average basis. Chart is provided for illustrative purposes.

## Risk-Adjusted Performance Profiles

The objective of the S&P 500 ESG Index is to enhance allocation to companies with improved sustainability characteristics while maintaining broad and diversified exposure, which has historically provided benchmark-like performance. As the risk-adjusted performance metrics over a one-, three- and five-year time horizon demonstrate, the index has had a realized tracking error between 1%-2%, almost identical volatility and some welcome outperformance over the benchmark S&P 500 (see Exhibit 7).

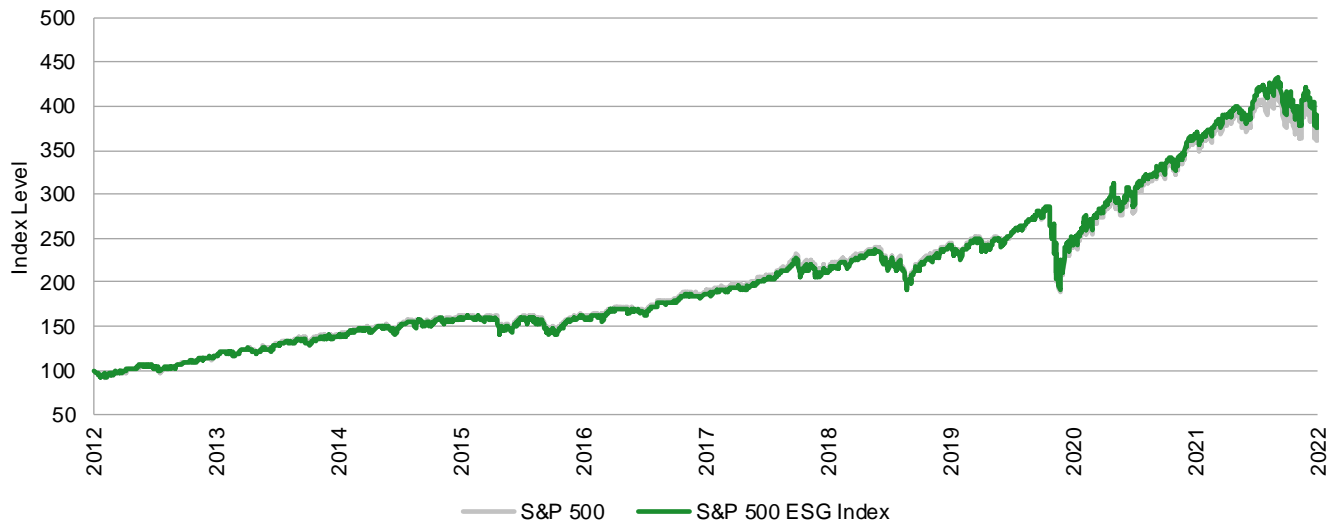
**Exhibit 7: Performance Characteristics of the S&P 500 ESG Index versus the S&P 500**

Category	S&P 500	S&P 500 ESG Index
Number of Constituents	504	308
Float-Adjusted Market Cap (USD Billions)	34,937	25,235
<b>Annualized Total Returns (%)</b>		
10-Year	13.67	14.12
5-Year	13.66	15.00
3-Year	13.85	15.80
1-Year	0.21	2.43
<b>Excess Returns (%)</b>		
10-Year	-	0.46
5-Year	-	1.34
3-Year	-	1.95
1-Year	-	2.22
<b>Annualized Risk (%)</b>		
10-Year	13.60	13.56
5-Year	16.41	16.37
3-Year	18.66	18.69
<b>Realized Tracking Error (%)</b>		
10-Year	-	1.11
5-Year	-	1.25
3-Year	-	1.45
1-Year	-	1.36

Source: S&P Dow Jones Indices LLC. Data as of April 29, 2022. Past performance is no guarantee of future results. Index performance based on total return in USD. The S&P 500 ESG Index was launched Jan. 28, 2019. All data prior to index launch is back-tested hypothetical data. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

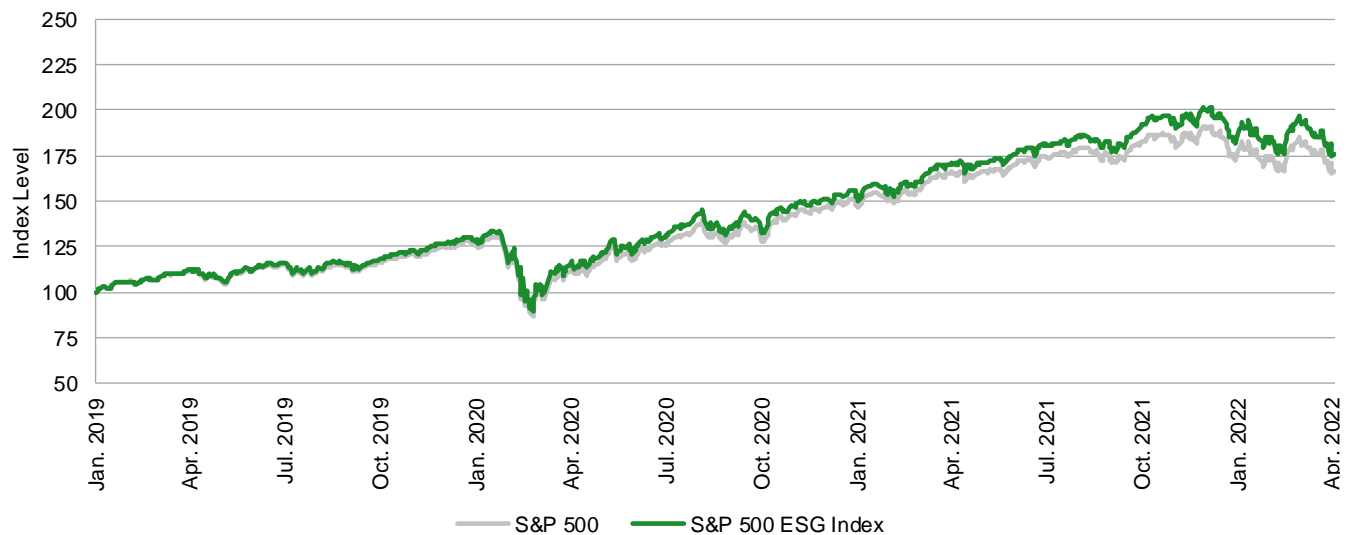
Exhibits 8 and 9 further illustrate the performance profile of the S&P 500 ESG Index relative to the S&P 500 over the historical 10-year and live 3-year timeframes (given that the index launched in 2019). Despite excluding more than 27% of the constituents in accordance with the rules-based eligibility and selection criteria, the S&P 500 ESG Index achieved a similar return profile to the S&P 500.

**Exhibit 8: 10-Year Historical Back-Tested Performance of the S&P 500 ESG Index versus the S&P 500**



Source: S&P Dow Jones Indices LLC. Data from April 30, 2012, to April 29, 2022. Index performance based on daily total return in USD. Past performance is no guarantee of future results. The S&P 500 ESG Index was launched Jan. 28, 2019. All data prior to index launch is back-tested hypothetical data. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for information regarding the inherent limitations associated with back-tested performance.

**Exhibit 9: Live Performance of the S&P 500 ESG Index versus the S&P 500**



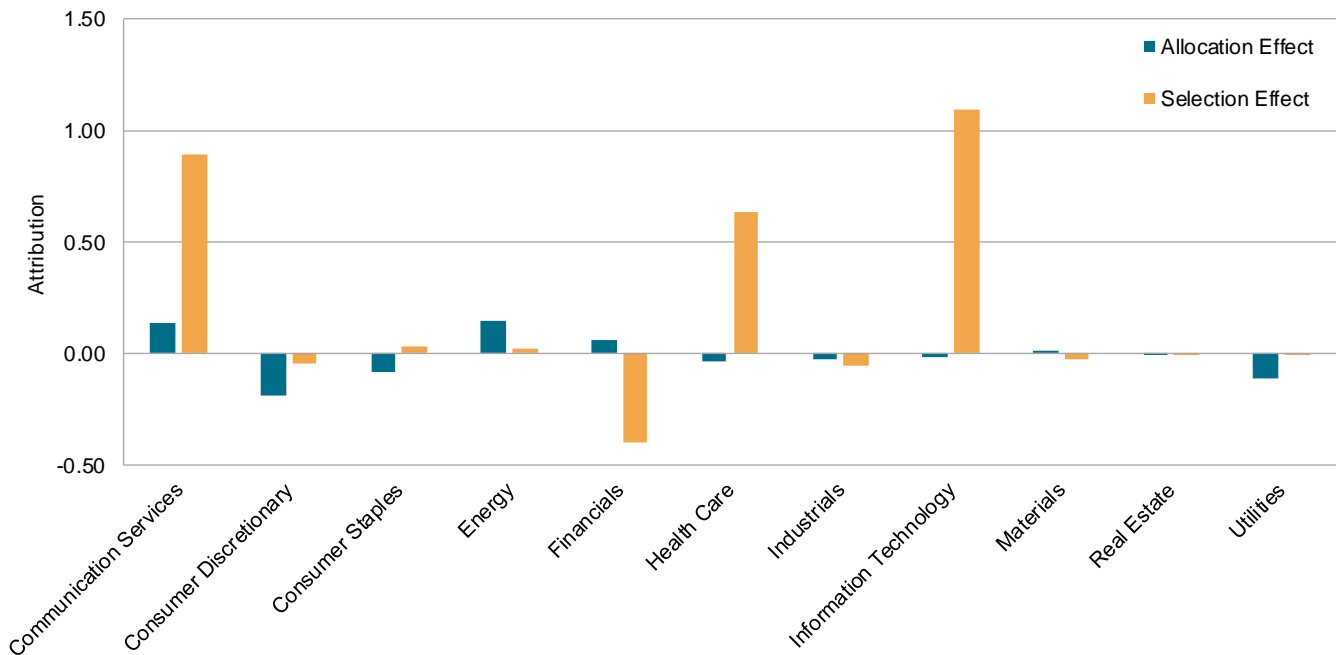
Source: S&P Dow Jones Indices LLC. Data from Jan. 28, 2019, to April 29, 2022. Index performance based on daily total return in USD. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

The 10-year historical performance profile demonstrates that the S&P 500 ESG Index has been highly correlated to the benchmark. However, it is worth paying special attention to its live performance. For instance, since the index launched in January 2019, it had an 18.69% annualized return, versus the S&P 500, which had 16.71%. On a one-year timeframe from April 2021 to April 2022, the ESG index achieved an excess return of 2.22%, while remaining close to the benchmark with a 1.36% tracking error.

## Performance Attribution: A Story of Selection

In addition to having many similar characteristics to the benchmark index, the S&P 500 ESG Index has also provided some welcome outperformance since its launch in 2019. This stands out as a deviation from its historical norm, making performance attribution over a one-year time frame a particularly useful exercise. Interestingly, the outperformance was not necessarily due to active exposure to specific sectors, as many suppose. Instead, the stock selection effect, as determined by the index methodology, was the primary driver of outperformance over the past year. This is perhaps unsurprising, as the index construction lends itself to a broadly sector-neutral outcome, resulting in a minimal allocation effect. To recap, after applying various exclusions, the methodology targets 75% of the market cap within each industry group in the S&P 500, selecting the best-ranked ESG performers by S&P DJI ESG Score. Since constituents are then weighted by market capitalization, the methodology essentially sifts through the largest companies for the ESG index to perform in line with its objective.

**Exhibit 10: One-Year Performance Attribution of the S&P 500 ESG Index versus the S&P 500**



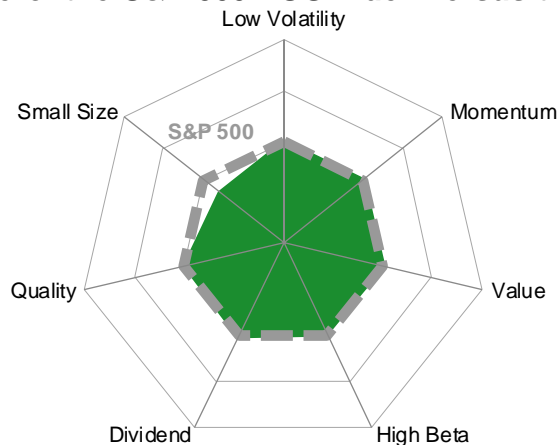
Source: S&P Dow Jones Indices LLC, FactSet. Data as of April 29, 2022. Index performance based on daily total return in USD. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

The rules-based exclusion and selection criteria used by the S&P 500 ESG Index resulted in the selection of certain companies that also drove significant performance for the S&P 500.

## Factor Exposure of the S&P 500 ESG Index

The question sometimes arises of whether the S&P 500 ESG Index exhibits any unintended factor exposures that might help to explain its recent outperformance. As Exhibit 11 demonstrates, however, the factor tilts were in fact quite similar to the S&P 500.

### Exhibit 11: Factor Exposure of the S&P 500 ESG Index versus the S&P 500



Source: S&P Dow Jones Indices LLC. Data as of April 29, 2022. Chart is provided for illustrative purposes.

Notwithstanding a similar picture overall, one area where the underlying factor exposure of the index does diverge is in its exposure to large size. This is unsurprising, due to the generally positive correlation between sustainability performance and firm size,<sup>9</sup> as visibility, access to resources and operating scale are typically associated with large firms. However, the underlying factor exposure of the index confirms that the S&P 500 ESG Index is poised to do precisely what it was intended to do. That is, to improve the sustainability characteristics of the benchmark while maintaining broadly similar industry group weights as the S&P 500. Whether or not the recent outperformance may be attributed to size, sustainability or perhaps something in between requires further study.

## Reviewing the Results of the 2022 Annual Rebalance

The S&P 500 ESG Index rebalances on an annual basis. Though product involvement exclusions related to business activities such as tobacco and controversial weapons remain relatively constant, a significant source of turnover in the index is due to companies changing relative positions with respect to their S&P DJI ESG Scores.

<sup>9</sup> Dremptic, S., Klein, C., and Zwergel, B. "[The Influence of Firm Size on the ESG Score: Corporate Sustainability Ratings Under Review](#)," *Journal of Business Ethics* (2019).

Relative position matters because in two instances in the methodology, companies are sorted and selected—or screened out—according to their S&P DJI ESG Score.

In the annual rebalance in April 2022,<sup>10</sup> 35 companies left the S&P 500 ESG Index and 36 companies were added. Exhibits 12 and 13 show the largest ones in terms of market cap.

### Exhibit 12: Largest Additions to the S&P 500 ESG Index

Company Name	S&P 500 Weight (%)
Zoetis Inc	0.24
EOG Resources	0.20
US Bancorp	0.19
Truist Financial Corp	0.18
Estee Lauder Cos. A	0.18
American Intl Group Inc	0.14
Moderna, Inc.	0.14
Centene Corp	0.13
Valero Energy Corp	0.13
Phillips 66	0.12

Source: S&P Dow Jones Indices LLC. Data as of April 29, 2022. Table is provided for illustrative purposes.

### Exhibit 13: Largest Exclusions from the S&P 500 ESG Index

Company Name	S&P 500 Weight (%)	Reason
Tesla, Inc	2.09	Disqualifying S&P DJI ESG Score
Home Depot Inc	0.90	Eligible but Not Selected
Chevron Corp	0.86	Disqualifying S&P DJI ESG Score
Accenture plc A	0.54	Eligible but Not Selected
Danaher Corp	0.46	Eligible but Not Selected
Booking Holdings Inc	0.26	Eligible but Not Selected
Analog Devices Inc	0.23	Eligible but Not Selected
Progressive Corp	0.18	Eligible but Not Selected
Norfolk Southern Corp	0.18	Eligible but Not Selected
Activision Blizzard Inc	0.17	Eligible but Not Selected

Source: S&P Dow Jones Indices LLC. Data as of April 29, 2022. Table is provided for illustrative purposes.

In some instances, the index methodology ensured that certain S&P 500 companies continued to be excluded, after being excluded in previous years. Exhibit 14 lists the largest companies

<sup>10</sup> For more information, see Dorn, Maggie, "[The \(Re\)Balancing Act of the S&P 500 ESG Index](#)," S&P DJI's Indexology® Blog, May 17, 2022.

that have never been included in the index and remained excluded following the 2022 annual rebalance.

### Exhibit 14: 10 Largest Companies to Remain out of the S&P 500 ESG Index Since Launch

Company	Reason for Not Being Selected in 2022
Berkshire Hathaway B	Disqualifying S&P DJI ESG Score
Netflix Inc	Eligible, but Not Selected
Broadcom Inc	Eligible, but Not Selected
Honeywell Int Inc	Controversial Weapons Involvement
Philip Morris Intl	Tobacco Involvement
Boeing Co	Controversial Weapons and Military Contracting Involvement
Intuitive Surgical Inc	Eligible, but Not Selected
Lockheed Martin	Controversial Weapons and Military Contracting Involvement UNGC Non-Compliant
Altria Group Inc	Tobacco Involvement
Stryker Corp	Eligible, but Not Selected

Source: S&P Dow Jones Indices LLC. Data as of April 29, 2022. Table is provided for illustrative purposes.

Even as turnover is relatively high (aggregate one-way turnover since launch to April 29, 2022, was 12% for the S&P 500 and 56% for the S&P 500 ESG Index), certain companies have remained in the index year after year. Exhibit 15 highlights the 10 largest companies that have stayed in the S&P 500 ESG Index since its launch on Jan. 28, 2019.

### Exhibit 15: 10 Largest Companies That Remained in the S&P 500 ESG Index

Company	Float-Adjusted Market Cap (USD Billion)
Apple Inc.	2,430.94
UnitedHealth Group Inc	483.90
Procter & Gamble	383.03
JPMorgan Chase & Co	363.56
Exxon Mobil Corp	348.38
Bank of America Corp	259.10
Verizon Communications Inc	207.42
Adobe Inc.	188.26
Intel Corp	185.36
AT&T Inc	137.82

Source: S&P Dow Jones Indices LLC. Data as of April 29, 2022. Table is provided for illustrative purposes.



## An Ecosystem Is Evolving

Since the index was launched in January 2019, the number of investment products tied to the index has grown, with several exchange-traded funds (ETFs) spanning the U.S., Canada, and Europe—with AUM totaling approximately USD 8.5 billion to date.<sup>11</sup> In addition, futures listed on the CME have traded over USD 96 billion in notional value since they launched in November 2019,<sup>12</sup> providing additional liquidity to an evolving ecosystem of market participants who use the S&P 500 ESG Index. Interestingly, investments in these products have come from various client segments and geographies as opposed to a select few ESG-oriented institutional investors, suggesting that the S&P 500 ESG Index is becoming increasingly accepted as a starting point for ESG investments among market participants around the world.

## Conclusion

The launch of the S&P 500 ESG Index marked a watershed moment in the landscape of sustainable investments. By offering a broad-based, sustainable alternative to the S&P 500, the index is beginning to cement its position as a common starting point for ESG investors around the world focused on U.S. equities. While exhibiting desirable sustainability characteristics—such as stronger commitments to reduce greenhouse gas emissions, enhanced workforce diversity and enhanced anti-corruption and bribery policies—the index has historically delivered low levels of tracking error and benchmark-like returns. The index thus allows market participants to align their values with their investments and integrate sustainability considerations into the core of their strategies—and not just at the periphery. As a sustainable complement for the iconic S&P 500, therefore, the S&P 500 ESG Index is helping to elevate ESG investing from the margins to the mainstream.

<sup>11</sup> Source: S&P Dow Jones Indices LLC and Morningstar. Data as of April 29, 2022.

<sup>12</sup> Source: CME Group.

## Performance Disclosure/Back-Tested Data

The S&P 500 ESG Index was launched January 28, 2019. All information presented prior to an index's Launch Date is hypothetical (back-tested), not actual performance. The back-test calculations are based on the same methodology that was in effect on the index Launch Date. However, when creating back-tested history for periods of market anomalies or other periods that do not reflect the general current market environment, index methodology rules may be relaxed to capture a large enough universe of securities to simulate the target market the index is designed to measure or strategy the index is designed to capture. For example, market capitalization and liquidity thresholds may be reduced. Complete index methodology details are available at <http://www.spglobal.com/spdji/>. Past performance of the Index is not an indication of future results. Back-tested performance reflects application of an index methodology and selection of index constituents with the benefit of hindsight and knowledge of factors that may have positively affected its performance, cannot account for all financial risk that may affect results and may be considered to reflect survivor/look ahead bias. Actual returns may differ significantly from, and be lower than, back-tested returns. Past performance is not an indication or guarantee of future results. Please refer to the methodology for the Index for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations. Back-tested performance is for use with institutions only; not for use with retail investors.

S&P Dow Jones Indices defines various dates to assist our clients in providing transparency. The First Value Date is the first day for which there is a calculated value (either live or back-tested) for a given index. The Base Date is the date at which the index is set to a fixed value for calculation purposes. The Launch Date designates the date when the values of an index are first considered live: index values provided for any date or time period prior to the index's Launch Date are considered back-tested. S&P Dow Jones Indices defines the Launch Date as the date by which the values of an index are known to have been released to the public, for example via the company's public website or its data feed to external parties. For Dow Jones-branded indices introduced prior to May 31, 2013, the Launch Date (which prior to May 31, 2013, was termed "Date of introduction") is set at a date upon which no further changes were permitted to be made to the index methodology, but that may have been prior to the Index's public release date.

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