S&P Dow Jones Indices

A Division of S&P Global

Index Education

The S&P 500® ESG Index: Defining the Sustainable Core

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.

Contributors

Reid Steadman
Managing Director
Global Head of ESG Indices
reid.steadman@spglobal.com

Mona Naqvi
Senior Director
Head of North America ESG Product Strategy
mona.naqvi@spglobal.com

Dan Perrone
Director
Head of ESG Index Operations
daniel.perrone@spglobal.com

For decades, the prospect of inclusion in ESG indices like the Dow Jones Sustainability Indices has encouraged companies to manage their businesses with various stakeholders and objectives in mind. 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 addressed the need for an index that incorporates ESG values while offering benchmark-like performance. Intentionally broad—including over 300 of the original S&P 500 companies—the S&P 500 ESG Index reflects many of the attributes of the S&P 500 itself, while providing an improved sustainability profile.

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;
- How "financial materiality" drives index construction;
- The similar risk/return 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 are based on data gathered over two decades by SAM, part of S&P Global.

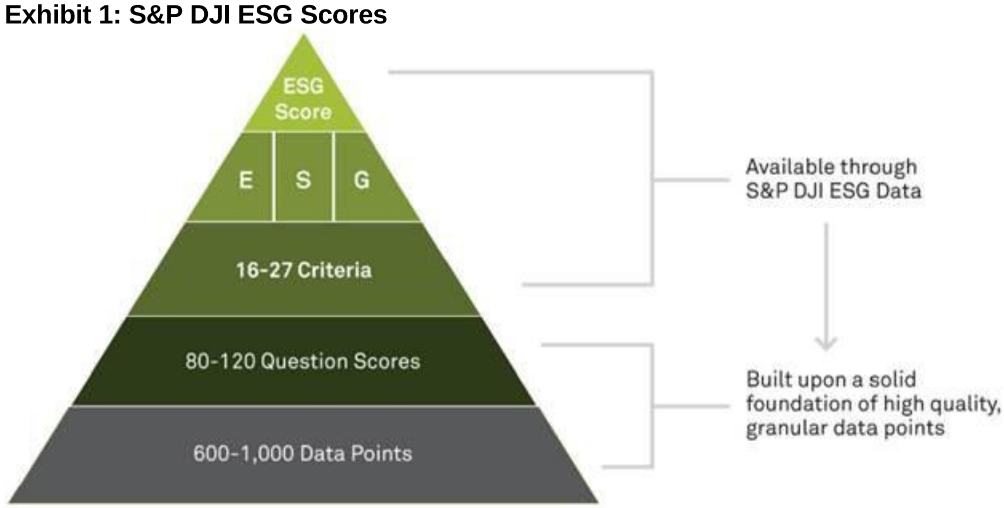
The S&P DJI ESG Scores are based on data gathered over two decades by SAM, part of S&P Global, which publishes ESG scores based on data gathered through the Corporate Sustainability Assessment (CSA). The CSA has become a leading standard in its own right as the definitive guidebook and grading system for corporations, quantifying their progress on sustainability topics and their ESG performance in relation to their peers.

In January 2020, S&P Global acquired SAM, the ESG data collection and scoring unit of the Zurich-based active manager, RobecoSAM. This acquisition further enhanced S&P Global's capabilities in ESG and built on its strong ties with companies already familiar with S&P Global through its credit ratings, benchmarks, and market data businesses.

The granular, industry-specific data SAM gathers through the CSA directly from companies differentiates the S&P DJI ESG Scores from other ESG scores, which rely on data only from public sources."

The granular, industry-specific data SAM gathers through the CSA *directly from companies* and from publicly available sources differentiates the S&P DJI ESG Scores from other ESG scores that rely only on data from public sources. Because S&P Global directly interacts with companies, it is able to collect 600-1,000 data points per company. These data points are then transformed into four levels of scores, highlighted in Exhibit 1.

Exhibit 1: S&P DJI ESG Scores



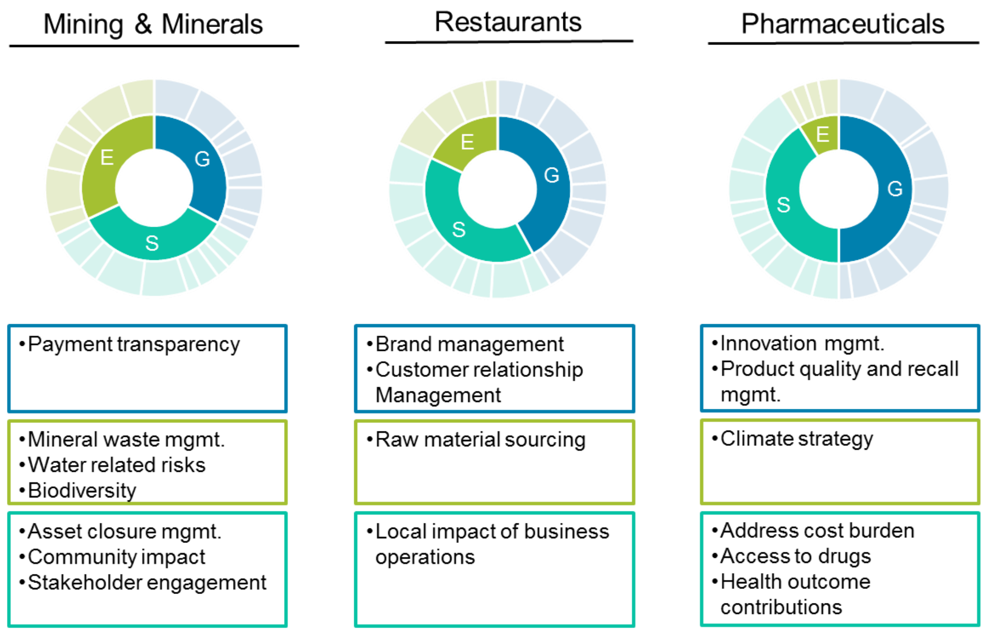
Source: S&P Dow Jones Indices LLC. Chart is provided for illustrative purposes.

The scoring approach employed to derive the S&P DJI ESG Scores is rooted in the principle of financial materiality: that companies should be assessed according to the sustainability issues that are most likely to arise and to have the greatest impact on companies in their industry.

SAM was able to identify financially material factors uniquely relevant to 61 different industries.

In the course of its long history and through investment experience[1] using the granular data it collected, SAM was able to identify financially 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 financial materiality.

Exhibit 2: Financially Material Issues in Select Industries



Source: SAM, part of S&P Global. Chart is provided for illustrative purposes.

If a company does not report on a given issue, but a standard for transparency has not been reached on this issue, the weight of the question is redistributed to other questions.

Once initial weights are assigned, two important refinements are made to ensure scores are suitable for use in an index.[2] First, an adjustment is made to the weights of the scores in order to address information gaps that may exist for companies that do not participate directly in the CSA. 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.[3] Instead, the weight of the question is redistributed to other questions.

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

[1] SAM was originally part of RobecoSAM, an active investment manager, and gathered ESG data to inform RobecoSAM's portfolio managers' investment decisions.

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

[3] 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."

The S&P DJI ESG Scores are normalized at the industry level to ensure that the scores of companies are comparable.

can have scores that are tightly grouped or skewed relative to the scores of companies in other industries measured against different criteria. This normalization ensures companies' relative positions are comparable for screening, sorting, and selecting index constituents.

These adjustments, in addition to direct access to data through the CSA and the identification of financially material factors, make the S&P DJI ESG Scores the most innovative scores used in indices today.

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.[4]

The S&P 500 ESG Index leverages the S&P DJI ESG Scores and other data to define its constituents.

The index methodology was developed with two objectives.

- To provide a similar risk/return profile to the S&P 500; 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.

With further methodological adjustments, the industry composition of the S&P 500 ESG Index is brought back into general alignment with the S&P 500.

These two objectives run somewhat counter to each other. Eliminating companies from the S&P 500 necessarily changes its performance. But with further methodological adjustments, the industry composition of the S&P 500 ESG Index is brought back into general alignment with the S&P 500, resulting in a benchmark-like risk/return profile.

METHODOLOGY SUMMARY

Exclusions

Companies are eliminated that:

- Have an S&P DJI ESG Score that is in the bottom 25% of scores within their GICS® industry group in the S&P Global LargeMidCap and S&P Global 1200.
- Produce tobacco, derive more than 10% of their revenue from tobacco-related products and services, or hold more than a 25% stake in a company involved in these activities.
- Are involved in controversial weapons, including cluster weapons, landmines, biological or chemical weapons, depleted uranium

[4] Please see the S&P ESG Index Series Methodology for more information on the S&P 500 ESG Index.

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

- Have a UN Global Compact (UNGC) score that is in the bottom 5% of scores in the eligible universe.[5,6]

Starting Sept. 21, 2020, companies deriving more than 5% of their revenues from thermal coal will also be excluded from the S&P 500 ESG Index.

Starting Sept. 21, 2020, companies deriving more than 5% of their revenues from thermal coal will also be excluded from the S&P 500 ESG Index. This new exclusion is the result of a formal consultation process to determine whether investors using the S&P 500 ESG Index saw this exclusion as desirable and consistent with the index's objectives. In the future, S&P DJI may conduct further consultations regarding exclusions and other methodological points to ensure the S&P 500 ESG Index remains relevant and useful to a broad array of investors.

Constituent Selection and Weighting

Once the exclusions are made, the index constituents 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.

Controversies between Rebalances

When controversies unfold between annual rebalances of the S&P 500 ESG Index, SAM reviews these to consider whether a company's S&P DJI ESG Score should be reduced.

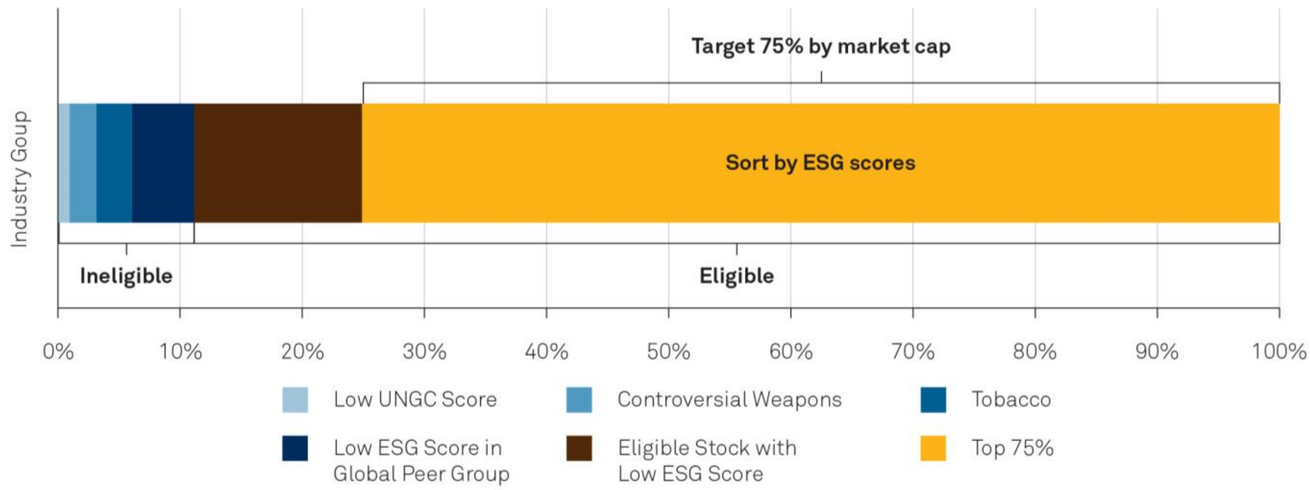
When controversies unfold between annual rebalances of the S&P 500 ESG Index, SAM reviews these to consider whether a company's S&P DJI ESG Score should be reduced. The S&P DJI Index Committee overseeing the index then determines whether the company should be removed. Controversies monitored by SAM include 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.

[5] The UN Global Compact, which was established in 2000, commits it 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.

[6] Calculated by Arabesque.

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

Index Construction Sample



Objective: To target 75% of the market capitalization within each GICS industry group of the S&P 500, using the S&P DJI ESG Score

Step 1: Exclude companies involved in tobacco or controversial weapons, or with a low UNGC score

Step 2: Exclude companies with S&P DJI ESG Scores in the bottom 25% of their GICS industry group globally

Step 3: Within the S&P 500, sort the remaining companies by their S&P DJI ESG Scores within each GICS industry group

Step 4: Starting from the company with the highest S&P DJI ESG Score, select companies for inclusion from the top down, targeting 75% of the GICS industry group

Step 5: Weight companies by float-adjusted market capitalization

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

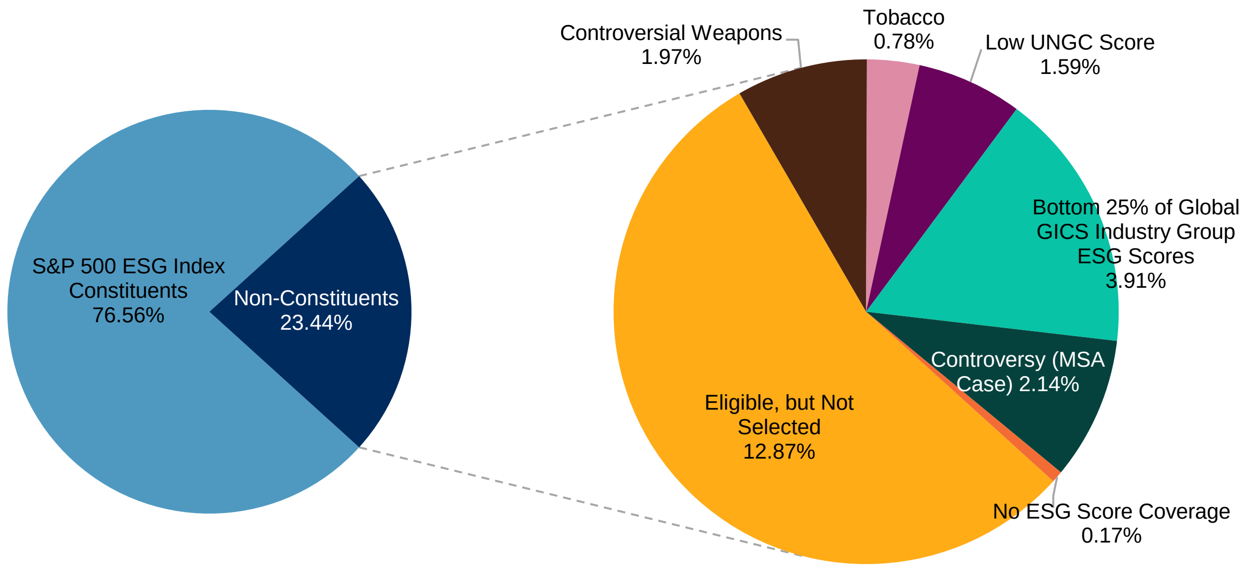
Overall, 194 constituents of the S&P 500 were excluded from the S&P 500 ESG Index, totaling 23.44% of the S&P 500 market capitalization as of April 30, 2020. Exhibit 4 ranks the reasons behind these exclusions.

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

REASON FOR EXCLUSION	NUMBER OF EXCLUSIONS	WEIGHT IN S&P 500 (%)
Eligible but Not Selected (Not Part of the Top 75% of Industry Group Market Cap)	138	12.87
S&P DJI ESG Score in Bottom 25% of Industry Group Globally	35	3.91
Involved in Controversial Weapons	9	1.97
UNGC Score Too Low	5	1.59
Not Eligible Due to Prior Media & Stakeholder Analysis Case	3	2.14
Involved in Tobacco Production or Sales	2	0.78
Company Not Covered	2	0.17

Source: S&P Dow Jones Indices LLC. Data as of April 30, 2020. Table is provided for illustrative purposes.

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 30, 2020. Chart is provided for illustrative purposes.

RESULTS & PERFORMANCE

While maintaining similar levels of risk and return to the benchmark S&P 500, the S&P 500 ESG Index manages to achieve numerous measurable, positive ESG impacts relative to the S&P 500—a small sample of which are highlighted in Exhibit 6.

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

Environmental		Social		Governance	
10%	Exposure to companies with third-party verified GHG emission data	10%	Exposure to companies actively monitoring minority representation in their workforce	10%	Exposure to companies with a due diligence process to proactively identify potential impacts and risks associated with respecting human rights
9%	Exposure to companies with explicit GHG emission reduction targets	9%	Exposure to companies that assess potential human rights violations throughout their supply chain and business operations	9%	Exposure to companies with a public Supplier Code of Conduct that covers working conditions
8%	Exposure to companies that analyze their sources of Scope 3 emissions	8%	Exposure to companies with a public commitment to respect human rights in line with international standards	8%	Exposure to companies that perform and disclose the results of ESG materiality analysis on their business
7%	Exposure to companies that integrate climate-related issues into their central enterprise risk-management processes, covering all sources of risks and opportunities	8%	Exposure to companies actively monitoring and reporting social KPIs	8%	Exposure to companies with employee incentives for managing climate change issues and attaining targets
7%	Exposure to companies actively monitoring and reporting the waste management practices of company operations, including total waste generated, used, recycled and sold	7%	Female representation in management positions including junior, middle, and senior managment	7%	Exposure to companies with a diversity policy regarding board nominations
5%	Exposure to companies ranking in the top 20% of GHG emissions reduction compared the base year	5%	Exposure to companies that track Human Capital Return on Investment metrics, measuring the return on human capital projects	5%	Exposure to companies promoting an effective risk culture with employee incentives tied to risk management metrics

Source: SAM, part of S&P Global, S&P Dow Jones Indices LLC. Chart is provided for illustrative purposes. These impacts represent a sample of the ways in which the S&P 500 ESG Index reflects enhanced ESG performance relative to the S&P 500. Increased index exposure to each ESG metric is calculated using the question-level data in SAM's CSA (2019 methodology year) that underpin the S&P DJI ESG Scores used in the construction of the index. These metrics are calculated using index data as of May 1, 2020, as the percentage difference between the performance of S&P 500 ESG Index and S&P 500 constituents across these metrics, on a weighted average basis.

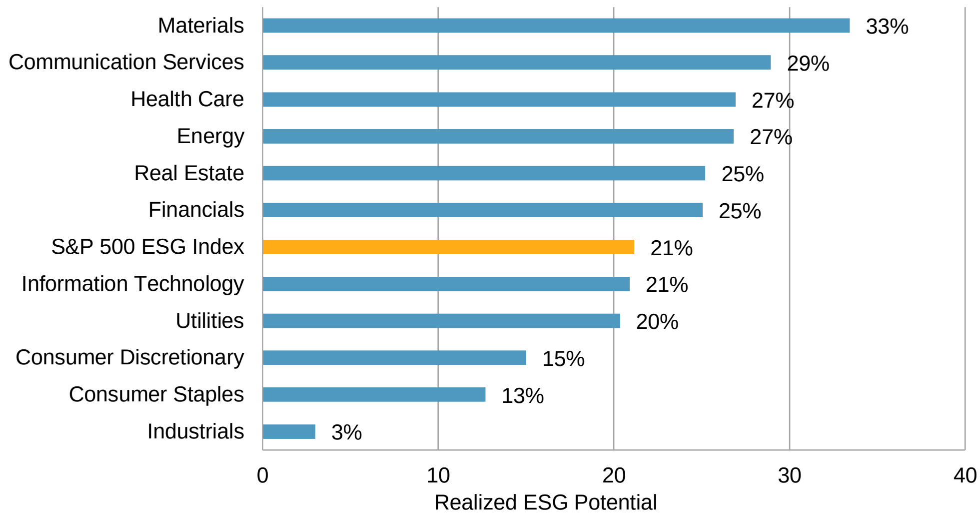
The S&P 500 ESG Index attained an absolute ESG score increase of 9% relative to the benchmark overall, realizing more than 21% of the ESG potential of the benchmark universe.

These key ESG performance indicators underpin the value of the S&P 500 ESG Index. By achieving these types of positive impacts, the strategy allows investors to align their values with their investments, while still achieving returns similar to the S&P 500 (see Exhibit 8).

In addition to these underlying metrics, the S&P 500 ESG Index attained an absolute ESG score improvement of 9% relative to the benchmark, realizing more than 21% of the ESG potential of the benchmark universe.[7] Exhibit 7 shows the realized ESG potential across sectors, where several sectors have achieved a greater share of the possible ESG improvement than the index has overall. More research is required to understand what factors account for this dispersion in sector improvement.

These key ESG performance indicators underpin the value of the S&P 500 ESG Index.

Exhibit 7: Realized ESG Potential of the S&P 500 ESG Index versus the Benchmark



Source: S&P Dow Jones Indices LLC. Data as of June 30, 2020. Chart is provided for illustrative purposes.

The objective of the S&P 500 ESG Index is to enhance allocation to companies with improved sustainability characteristics while providing benchmark-like returns.

Risk/Return 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, in an effort to provide benchmark-like returns. As the risk/return metrics over a one-, three-, and five-year time horizon demonstrate (see Exhibit 8), the index has indeed delivered on its objective—with realized tracking errors consistently about 1%, almost

[7] As of May 1, 2020, the composite S&P DJI ESG Score of the S&P 500 ESG Index was 66.72, compared with the S&P 500's score of 57.76, an increase of 8.96. S&P DJI ESG Scores are designed to be read as percentiles. A company score of 70 means that company has a higher score than 70% of its peers in that particular industry. Thus, a score of 57.76 means that the S&P 500 had a collectively higher score than 57.76% of the companies in the broader universe. As a result, a score increase of 8.96 associated with the S&P 500 ESG Index represents 21.17% ((8.96)/(100-57.76)) of the possible ESG improvement that the index could achieve. 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.

identical volatility, and some welcome outperformance over the benchmark S&P 500.

The index has indeed delivered on its objective—with realized tracking errors consistently about 1%, almost identical volatility, and some welcome outperformance over the benchmark S&P 500.

Exhibit 8: 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	505	310
Float-Adjusted Market Cap (USD Billions)	25,637	19,622
ANNUALIZED TOTAL RETURNS (%)		
10-Year	13.99	14.28
5-Year	10.73	11.33
3-Year	10.73	12.18
1-Year	7.51	10.77
EXCESS RETURNS (%)		
10-Year	-	0.29
5-Year	-	0.60
3-Year	-	1.45
1-Year	-	3.27
ANNUALIZED RISK (%)		
10-Year	13.42	13.13
5-Year	14.76	14.58
3-Year	16.95	16.64
REALIZED TRACKING ERROR (%)		
10-Year	-	0.96
5-Year	-	0.89
3-Year	-	0.97
1-Year	-	1.27

Source: S&P Dow Jones Indices LLC. Data as of June 30, 2020. Past performance is no guarantee of future results. 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 9 and 10 further illustrate the return profile of the S&P 500 ESG Index relative to the S&P 500, over the 10-year and 1-year timeframes, while the latter shows the live performance record, given that the index launched in 2019. Despite excluding more than 30% of the constituents according to rules-based eligibility and selection criteria, the S&P 500 ESG Index achieved a similar return profile to the S&P 500, along with a myriad of sustainability enhancements.

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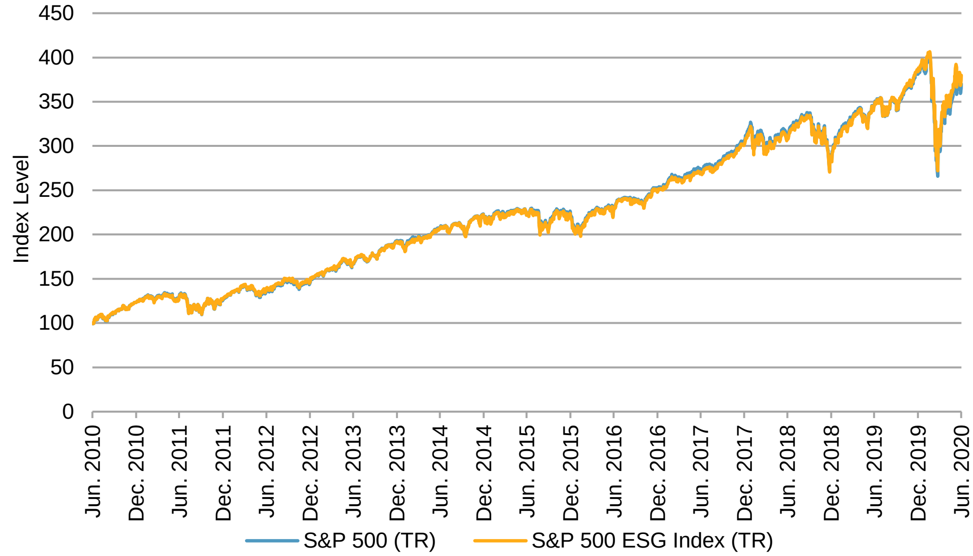
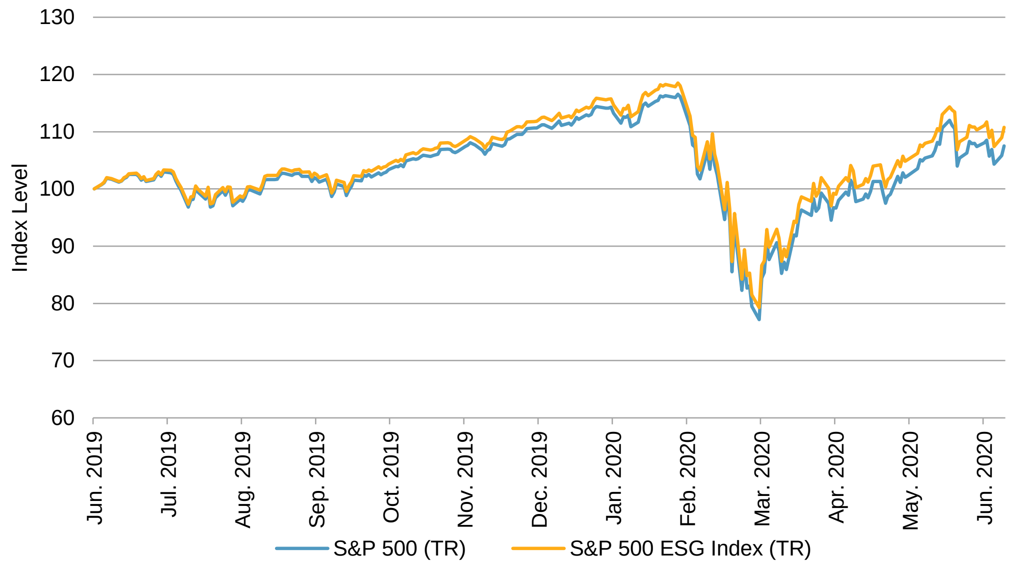
Exhibit 9: 10-Year Historical Returns of the S&P 500 ESG Index versus the S&P 500



Source: S&P Dow Jones Indices LLC. Data from June 30, 2010, to June 30, 2020. Index performance based on daily total returns in USD. Past performance is no guarantee of future results. 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 10: One-Year (Live) Performance of the S&P 500 ESG Index versus the S&P 500



Source: S&P Dow Jones Indices LLC. Data from June 28, 2019, to June 30, 2020. Index performance based on daily total returns in USD. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

The 10-year historical return profile demonstrates that the S&P 500 ESG Index generally succeeded in targeting the performance of the benchmark S&P 500. However, it is worth paying special attention to the past year, when the index was live. Over this timeframe, notwithstanding turbulent markets, the strategy achieved an excess return of 3.27%, while remaining close to the benchmark with 1.27% tracking error.

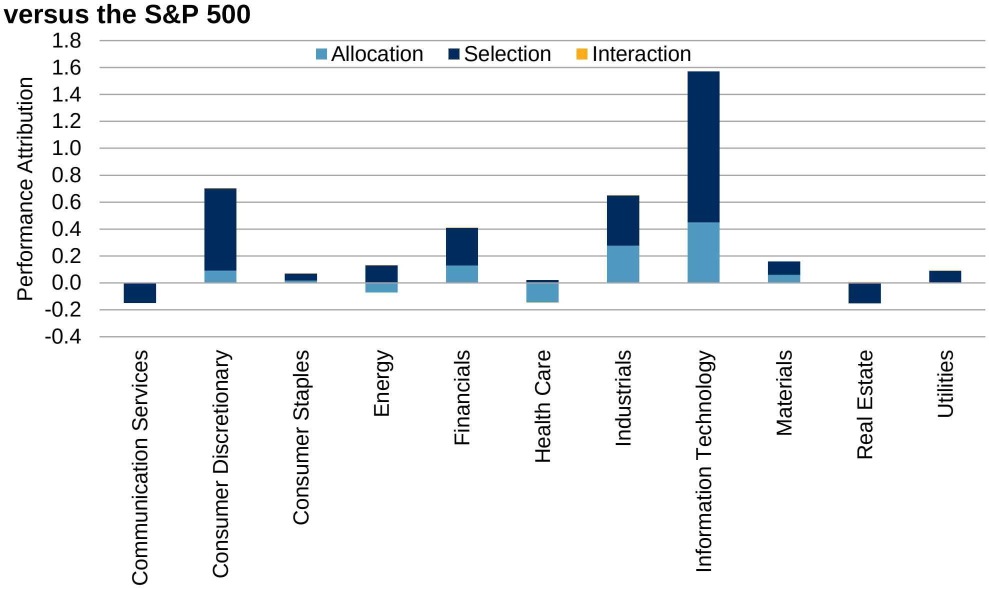
Performance Attribution: A Story of Selection

Throughout 2019 and 2020 to date, the S&P 500 ESG Index provided some welcome outperformance.

Throughout 2019 and 2020 to date, notwithstanding its objective to perform in line with the S&P 500, the S&P 500 ESG Index provided some welcome outperformance. The performance was not necessarily due to over exposure to the IT sector or under exposure to the Energy sector, as many suppose. Instead, the stock selection effect, as determined by the index methodology, was the primary driver of outperformance over the past year, as highlighted in Exhibit 11. This is perhaps unsurprising, as the methodology implements a broadly sector-neutral approach, 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.

Stock selection effect was the primary driver of outperformance over the past year.

Exhibit 11: One-Year Performance Attribution of the S&P 500 ESG Index versus the S&P 500



Source: S&P Dow Jones Indices LLC, StatPro (Portfolio Analysis Tool for Performance Attribution Analysis). Data from June 28, 2019, to June 30, 2020. Index performance based on daily total returns in USD. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

A rules-based approach, driven by sustainability principles and a materiality-weighted ESG scoring framework, increased the index allocation to names that drove the outperformance.

Some companies that were significant drivers of the performance of the S&P 500 over the past 12 months, such as Apple and Microsoft, for example, survived the rules-based exclusion and selection criteria and qualified for the S&P 500 ESG Index. Meanwhile, other names with less-than-stellar performance, such as Boeing, did not. Thus, a rules-based approach, driven by sustainability principles and a materiality-weighted ESG scoring framework, increased the index allocation to several successful names that drove the outperformance.

Factor Exposure of the S&P 500 ESG Index

The question sometimes arises whether the S&P 500 ESG Index exhibits any unintended factor exposures that might help to explain its recent outperformance.

The question sometimes arises whether the S&P 500 ESG Index exhibits any unintended factor exposures that might help to explain its recent outperformance. As Exhibit 12 demonstrates, however, the factor tilts were in fact quite similar to the S&P 500, consistent with the index's objective to provide a similar risk/return profile to its benchmark.

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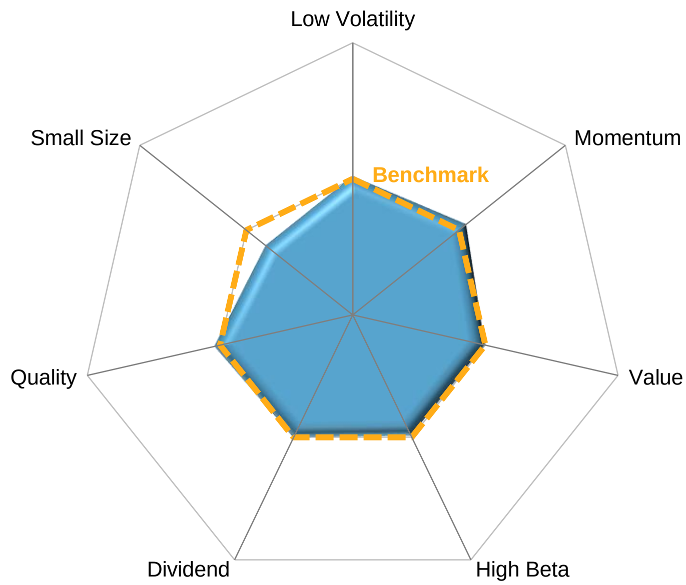
Exhibit 12: Factor Exposure of the S&P 500 ESG Index versus the S&P 500



Source: S&P Dow Jones Indices LLC. Data as of June 30, 2020. Chart is provided for illustrative purposes.

One area where the underlying factor exposure of the index does diverge is in its exposure to large size.

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,[8] 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 levels of risk and return to the S&P 500. Whether or not the recent outperformance may be attributed to size, sustainability, or perhaps something in between, requires further study.

[8] Drempetic, S., Klein, C., and Zwegel, B. "The Influence of Firm Size on the ESG Score: Corporate Sustainability Ratings Under Review," *Journal of Business Ethics* (2019).

REVIEWING THE RESULTS OF THE 2020 REBALANCE

The S&P 500 ESG Index rebalances on an annual basis.

The S&P 500 ESG Index rebalances on an annual basis, as noted earlier. Though "product involvement exclusions" related to 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.

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.

A significant source of turnover in the index is due to companies changing relative positions with respect to their S&P DJI ESG Scores.

With the annual rebalance in 2020, 39 companies left the S&P 500 ESG Index and 39 companies were added. Exhibits 13 and 14 show the largest adds and drops in terms of market cap. Seven of these companies had only been out of the index one year before being admitted again.

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Exhibit 13: Largest Additions to the S&P 500 ESG Index*

COMPANY	WEIGHT (%)	REASON
Facebook Inc A	2.04	ESG score increased by 38 points overall, largely driven by improvements in Governance. Industry reclassification from IT Services & Internet Software & Services to Interactive Media, Services & Home Entertainment resulted in improved industry ranking; Twitter's ineligibility due to UNGC helped Facebook gain entry.
Thermo Fisher Scientific	0.56	ESG score increased by 24 points overall. Industry group ranking went up from 5/7 to 3/7 in the Life Sciences Tools & Services industry group.
Costco Wholesale Corp	0.55	ESG score fell by 7 points overall, but ranking improved from to 6/6 to 4/5 in the Food & Staples Retailing industry group.
Eli Lilly & Co	0.54	ESG score fell by 5 points overall, but ranking improved from 7/9 to 5/9. Also, the exclusion of Johnson & Johnson due to an MSA case (which ranked 1/9) increased the chance of Eli Lilly being included to achieve the target 75% market cap within the Pharmaceuticals industry group.
Wells Fargo & Co	0.46	ESG score fell by 18 points overall, but ranking improved from 8/19 to 5/19 in the Banks industry group.
American Tower Corp A	0.44	ESG score fell by 6 points overall, but ranking improved from 27/31 to 21/31 in the Real Estate industry group.
Advanced Micro Devices	0.25	ESG score fell by 1 point but ranking improved from 12/16 to 5/16 in the Semiconductors & Semiconductor Equipment industry group.
Regeneron Pharmaceuticals Inc	0.17	ESG score increased by 16 points overall and ranking increased from 8/8 to 4/8 in the Biotechnology industry group.
Verisk Analytics Inc	0.10	ESG score increased by 5 points overall and ranking increased from 5/5 to 3/5 in the Professional Services industry group.
American Water Works Co Inc	0.09	ESG score increased by 6 points overall and ranking increased from 11/11 to 7/11 in the Multi and Water Utilities industry group.

* The industries referenced in this table are SAM industries. Please see Appendix I in the S&P ESG Index Series Methodology for more information on how SAM industries roll up to GICS industry groups.
Source: S&P Dow Jones Indices LLC. Data as of April 30, 2020. Table is provided for illustrative purposes.

Exhibit 14: Largest Exclusions from the S&P 500 ESG Index*

COMPANY	WEIGHT (%)	REASON
Walmart Inc.	0.71	ESG score fell by 25 points overall and ranking decreased to 5/5 in the Food & Staples Retailing industry group. Walmart used to rank 5/6, but Costco improved and the size of the industry group also reduced as CVS Health Corporation was reclassified into another industry.
Raytheon Technologies Corp	0.39	Historically excluded due to involvement in controversial weapons. Effective April 3, 2020, Raytheon Co. merged with United Technologies Corp. to create Raytheon Technologies Corp. Since United Technologies Corp. was a constituent of the S&P 500 ESG Index at the time of the merger, the merged entity remained a constituent following the merger effective date. However, with the subsequent annual rebalance Raytheon Technologies Corp. was once again removed due to involvement in controversial weapons.
Charter Communications Inc A	0.32	Excluded due to low UNGC score. Charter Communications' overall UNGC score fell considerably from the prior year, primarily as a result of large decreases in the human rights and labor rights areas.
Crown Castle Intl Corp	0.27	Excluded due to low UNGC score. Crown Castle Intl's overall UNGC score fell considerably from the prior year, primarily as a result of a large decrease in the human rights area.
US Bancorp	0.21	ESG score fell by 20 points overall and ranking stayed the same at 7/19 in the Banks industry group, but the market cap of its more highly ranked peers increased, so the 75% target was achieved without US Bancorp.
Kimberly-Clark	0.20	ESG score fell by 15 points overall and ranking fell from 2/5 to 3/5 in the Household Products industry group.
Applied Materials Inc	0.19	ESG score fell by 43 points overall and ranking fell from 3/16 to 10/16 in the Semiconductors & Semiconductor Equipment industry group.
Ross Stores Inc	0.14	ESG score fell by 25 points overall; E(-27), S(-24), G(-19); and ranking fell from 14/25 to 16/25 in the Retailing industry group.
Phillips 66	0.13	ESG score fell by 38 points overall and ranking fell from to 4/4 in the Oil & Gas Refining & Marketing industry group.
Consolidated Edison Inc	0.11	ESG score fell by 23 points overall and ranking fell from 9/11 to 11/11 in the Multi and Water Utilities industry group.

* The industries referenced in this table are SAM industries. Please see Appendix I in the S&P ESG Index Series Methodology for more information on how SAM industries roll up to GICS industry groups.
Source: S&P Dow Jones Indices LLC. Data as of April 30, 2020. 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.

In some instances, the index methodology ensured that certain S&P 500 companies continued to be excluded, after being excluded in previous years. Exhibit 15 lists the largest companies that remained out of the index in 2020 after missing inclusion in the S&P 500 ESG Index in 2019 as well.

Exhibit 15: 10 Largest Companies to Remain Out of the S&P 500 ESG Index

COMPANY	REASON
Johnson & Johnson	Controversy (MSA case) in 2019.
Berkshire Hathaway	Formerly due to a low UNGC Score (which improved), however, currently excluded for having an S&P DJI ESG Score in the bottom 25% of its global GICS industry group.
Netflix Inc.	Low UNGC score.
PayPal Holdings Inc.	Eligible, but S&P DJI ESG Score not high enough to warrant selection.
Philip Morris International	Involved in tobacco production or sales.
Oracle Corp	Eligible, but S&P DJI ESG Score not high enough to warrant selection.
Intl Business Machines Corp	Eligible, but S&P DJI ESG Score not high enough to warrant selection.
Broadcom Inc	Eligible, but S&P DJI ESG Score not high enough to warrant selection.
Honeywell Intl. Inc	Involved in controversial weapons.
Lockheed Martin	Involved in controversial weapons.

Source: S&P Dow Jones Indices LLC. Data as of Dec. 31, 2019. Table is provided for illustrative purposes.

Even as turnover is relatively high, certain companies have remained in the index year after year.

Even as turnover is relatively high, certain companies have remained in the index year after year. Exhibit 16 highlights the 10 largest companies that have stayed in the S&P 500 ESG Index since its earliest calculation date, April 30, 2010. In all, 98 companies have been in the index since 2010.

Exhibit 16: 10 Largest Companies Who Have Always Been in the S&P 500 ESG Index

COMPANY	FLOAT-ADJUSTED MARKET CAP (USD BILLION)
Apple Inc.	1,486.3
Procter & Gamble	296.0
JP Morgan Chase & Co.	286.6
Unitedhealth Group Inc.	279.7
Intel Corp.	253.3
Verizon Communications Inc.	228.1
AT&T Inc.	215.4
Adobe Inc.	209.7
Walt Disney Co.	201.4
Cisco Systems Inc.	197.8

Source: S&P Dow Jones Indices LLC. Data as of Dec. 31, 2019. Table is provided for illustrative purposes.

Focusing on the impact of the methodology on some specific companies illustrates how different elements of the methodology work in practice.

Individual Case Studies

Focusing on the impact of the methodology on some specific companies illustrates how different elements of the methodology work in practice.

EXCLUSION DRIVEN BY ESG SCORE: WALMART

In the 2019 assessment year, Walmart's ESG score fell by 25 points overall, from 52 to 27, which resulted in it being ranked last of the five companies in the Food & Staples Retailing GICS industry group. Though eligible for inclusion by passing all the exclusion criteria noted in this paper, Walmart was not selected through the process of targeting 75% of each GICS industry group's market capitalization.

Walmart made it into the index, but Costco improved its ESG score and CVS Health Corporation was reclassified into another industry, thus reducing the number of peers Walmart was ranked against.

Last year, Walmart made it into the index ranked fifth out of six companies in its industry group, but Costco improved its ESG score in the 2019 assessment year and CVS Health Corporation was reclassified into another industry, thus reducing the number of peers Walmart was ranked against.

INCLUSION DRIVEN BY ESG SCORE: FACEBOOK

After losing its standing in the S&P 500 ESG Index in 2019, Facebook was added back into the index in the 2020 rebalance. This was the result of Facebook's higher ESG score (59 compared with 21 the previous year), which was largely driven by improvement in its Governance score, but also the result of other interesting index dynamics.

Facebook was added back into the index in the 2020 rebalance as a result of its higher ESG score.

Facebook benefited from two factors. First, Facebook changed classifications from IT Services & Internet Software & Services to Interactive Media Services & Home Entertainment. In the former industry group, Facebook was ranked last of 25 companies by ESG score in the 2018 assessment year; in 2019, Facebook was ranked 8 of 22 in its new industry group. Second, Facebook benefited from Twitter becoming ineligible due to its low UNGC score, as detailed in the next section. Because Twitter lost its eligibility, Facebook became the final selection within its industry group to attain the desired 75% market cap threshold.

EXCLUSION DRIVEN BY LOW UNGC SCORE: TWITTER

Twitter was excluded from the eligible universe of companies to be selected due to its relatively low UNGC score.

Twitter was excluded from the eligible universe of companies to be selected due to its relatively low UNGC score, as determined by Arabesque S-Ray GmbH. Between 2019 and 2020, Twitter saw a significant drop in its Arabesque UNGC score mostly due to issues related to labor rights and specifically regarding whether Twitter has resisted its workers' right to organize.

EXCLUSION DRIVEN BY MEDIA & STAKEHOLDER ANALYSIS: JOHNSON & JOHNSON

Johnson & Johnson remained excluded from the index after a SAM Media & Stakeholder Analysis (MSA) resulted in this company's removal in October 2019. This MSA case was triggered by several controversies, including:

- The announcement of the Department of Justice's criminal investigation into whether company officials knew about the carcinogens in their products;
- The announcement of a USD 120 million settlement over alleged deceptive promotion of hip implants;

- Lawsuits filed by patients who incurred injuries after taking blood thinner Xarelto; and
- The USD 572 million fine in Oklahoma to resolve allegations of fraudulently downplaying the hazards and overemphasizing the benefits of opioids.

Since the index was launched in January 2019, the number of investment products tied to the index has grown.

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., Europe, Canada, and the U.K.—with assets under management totaling approximately USD 1.3 billion to date.[9] In addition, futures listed on the CME have traded over USD 10 billion in notional value since they launched in November 2019, 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.

Investments in these products have come from various client segments and geographies as opposed to a select few, ESG-oriented institutional investors.

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 female participation in management positions, and employee incentives for a more effective risk culture—the index has 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 substitute 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.

The S&P 500 ESG Index is beginning to cement its position as a common starting point for ESG investors around the world focused on U.S. equities.

[9] Data as of Aug. 13, 2020.

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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 www.spdji.com. Past performance of the Index is not an indication of future results. Prospective application of the methodology used to construct the Index may not result in performance commensurate with the back-test returns shown.

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The back-test period does not necessarily correspond to the entire available history of the Index. Please refer to the methodology paper for the Index, available at www.spdji.com 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.

Another limitation of using back-tested information is that the back-tested calculation is generally prepared with the benefit of hindsight. Back-tested information reflects the application of the index methodology and selection of index constituents in hindsight. No hypothetical record can completely account for the impact of financial risk in actual trading. For example, there are numerous factors related to the equities, fixed income, or commodities markets in general which cannot be, and have not been accounted for in the preparation of the index information set forth, all of which can affect actual performance.

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