S&P Dow Jones Indices

A Division of S&P Global

Index Education

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

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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, 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 seeks to reflect many of the attributes of the S&P 500 itself, while providing an improved sustainability profile. Further, this index is a potential solution for investment product providers seeking to adopt an index to meet the requirements of regulations, such the Regulation (EU) 2019/2088 (the Sustainable Finance Disclosure Regulation or SFDR).[1]

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 historically similar risk-adjusted performance profiles of the S&P 500 ESG Index and the S&P 500;

[1] See Article 8 of the Sustainable Finance Disclosure Regulation. The S&P 500 ESG Index methodology incorporates E&S characteristics (via S&P DJI ESG Scores) and proxies for good governance (i.e., companies with low UNGC scores are excluded and controversies are monitored using the Media & Stakeholder Analysis) and therefore potentially aligns with Article 8 of the EU SFDR. While the SFDR does not apply to S&P DJI, this statement expresses S&P DJI's internal evaluation of the S&P 500 ESG Index in light of the SFDR. It should be emphasised that the test for Article 8 products under the SFDR are unclear and require the exercise of judgment. Accordingly, different persons may classify the same investment, product and/or strategy differently under SFDR.

- 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 S&P Global ESG Research.

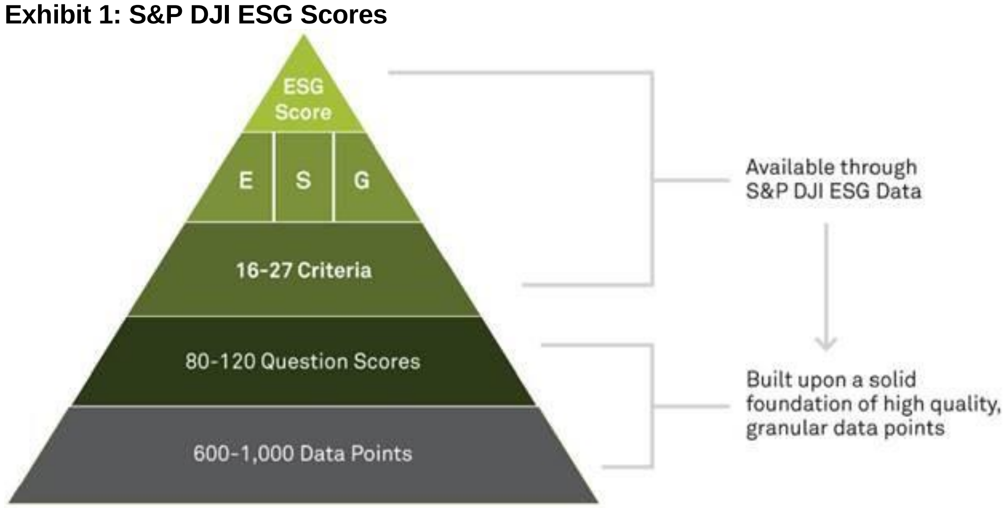
The S&P DJI ESG Scores are based on data gathered over two decades by S&P Global ESG Research, which publishes ESG scores based on data gathered through the annual Corporate Sustainability Assessment (CSA). The CSA has become a leading standard in its own right as the definitive guidebook and grading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

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 S&P Global 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 S&P Global 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



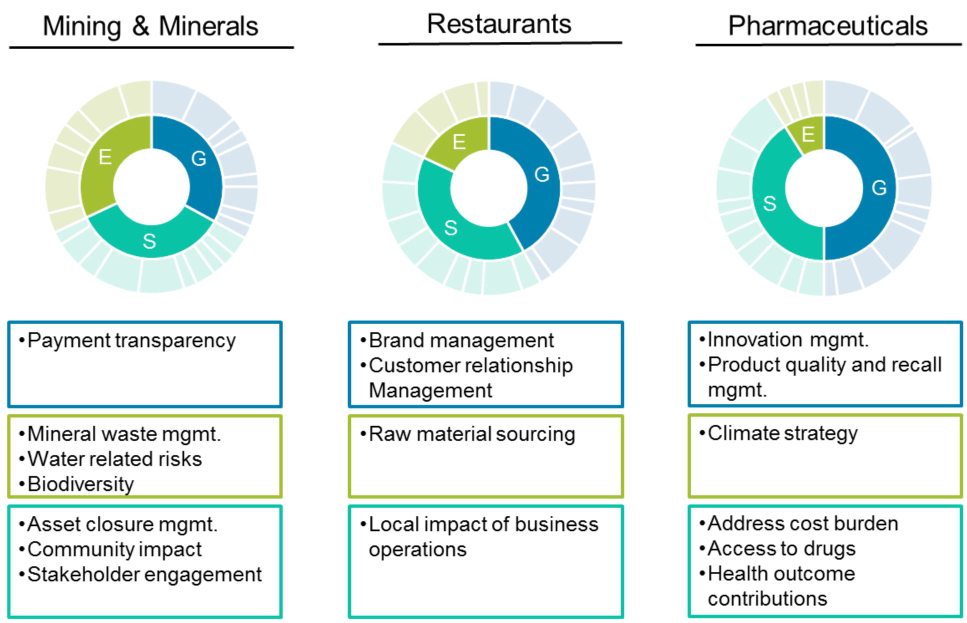
Source: S&P Dow Jones Indices LLC. Chart is provided for illustrative purposes.

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.

S&P Global ESG Research was able to identify financially material factors uniquely relevant to 61 different industries.

In the course of its long history and through investment experience[2] using the granular data it collected, S&P Global ESG Research 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: 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.[3] 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.[4] 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

[2] 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.

[3] 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.

[4] More detail on the CSA process and methodology is available here.

this missing data by receiving a zero.[5] 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.

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

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 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.

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.[6]

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.

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, which has historically resulted in a benchmark-like risk-adjusted performance profile.

[5] 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."

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

METHODOLOGY SUMMARY

Exclusions

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.

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.
- Extract or generate electricity from thermal coal accounting for greater than 5% of their revenue.
- 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 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.[7,8]

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.

The thermal coal 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.

[7] 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.

[8] Calculated by Arabesque.

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

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 thermal coal, 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:

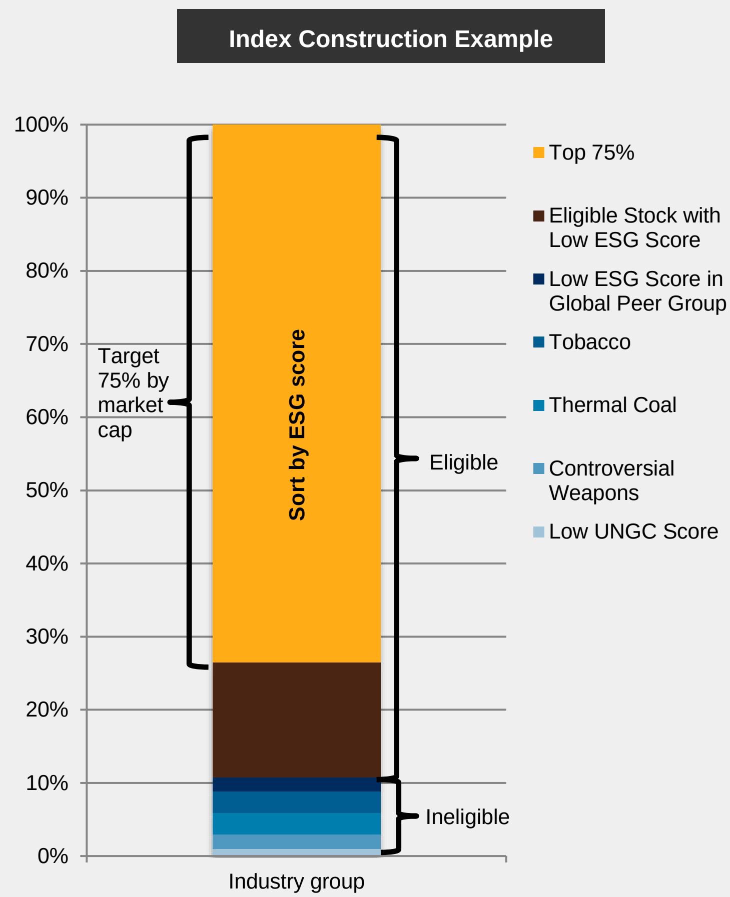
Within the S&P 500, sort the remaining companies by their S&P DJI ESG Scores within each GICS industry group.

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, 190 constituents of the S&P 500 were excluded from the S&P 500 ESG Index, totaling 24.56% of the S&P 500 market capitalization as of April 30, 2021. Exhibit 4 ranks the reasons behind these exclusions.

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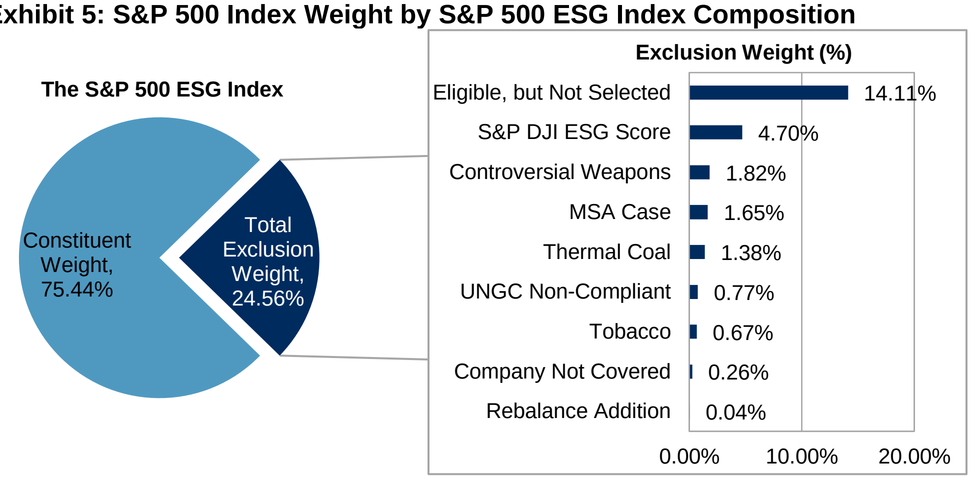
Exhibit 4: Reasons for Exclusion from the S&P 500 ESG Index

REASON FOR EXCLUSION	NUMBER OF EXCLUSIONS	WEIGHT IN S&P 500 (%)
Not Part of the Top 75% of Industry Group Market Cap	111	14.11
S&P DJI ESG Score in Bottom 25% of Industry Group Globally	45	4.70
Involved in Thermal Coal	16	1.38
Involved in Controversial Weapons	9	1.82
Company Not Covered	4	0.26
Not Eligible Due to Prior Media & Stakeholder Analysis Case	3	1.65
UNGC Score Too Low	2	0.77
Involved in Tobacco Production or Sales	2	0.67
Addition to S&P 500 Following Rebalance Reference Date	1	0.04

Source: S&P Dow Jones Indices LLC. Data as of April 30, 2021. Table is provided for illustrative purposes. Constituents may be flagged according to multiple exclusion criteria; sums and weights may exceed totals.

The S&P 500 ESG Index attained an absolute ESG score increase of 8.23% relative to the benchmark overall, realizing more than 23% of the ESG potential of the benchmark universe.

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, 2021. 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

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

Historically, the S&P 500 ESG Index has maintained similar levels of risk and return to the benchmark S&P 500, alongside numerous stainability enhancements. At the index level, it achieved an 8.23% increase in its aggregate S&P DJI ESG Score as of the last rebalance.

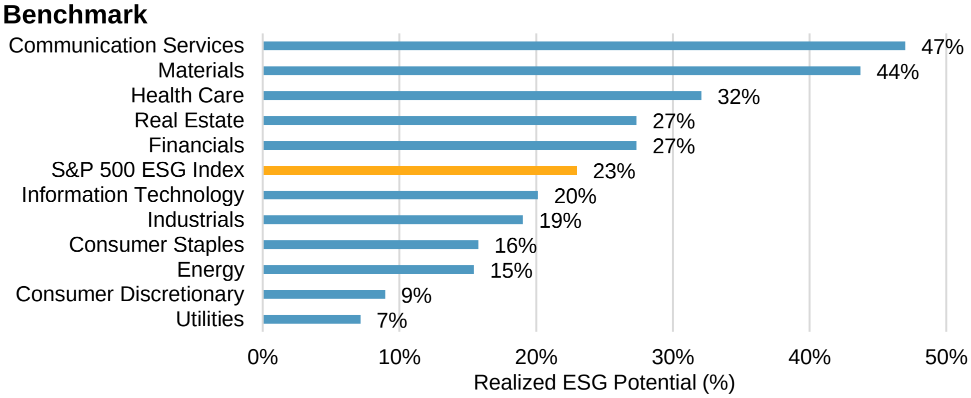
Realized ESG Potential

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 23% of the ESG potential of the benchmark, representing a meaningful boost for an ESG index that has still provided benchmark-like returns historically.[9]

The realized ESG potential measures the ESG score improvement achieved relative to the possible improvement that could have been attained by investing solely in the top ranked company by S&P DJI ESG Score.

However, while these metrics provide a good snapshot of the overall benefits, the industry-specific nature of S&P DJI ESG Scores—driven by a materiality-weighted scoring framework—means such index-level measures may miss the true benefits captured within each sector. Therefore, Exhibit 6 highlights the realized ESG potential across sectors and demonstrates how several sectors achieved a much bigger boost in sustainability profile than the S&P 500 ESG Index achieved overall. Further research is required to understand what might be driving this dispersion in sector-level improvements.

Exhibit 6: Realized ESG Potential of the S&P 500 ESG Index versus the Benchmark



Source: S&P Dow Jones Indices LLC. Data as of April 30, 2021. Chart is provided for illustrative purposes.

The S&P 500 ESG Index realized more than 23% of the ESG potential of the benchmark, but it underperformed some individual sectors.

Real-World Benefits

Perhaps more interesting still are the real-world benefits represented by the enhanced sustainability profile. 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. The sustainability benefits of the S&P 500 ESG Index are thus simply too numerous to convey in a single white paper. Nevertheless, a small sampling of these enhancements is highlighted in Exhibit 7.

[9] 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 23% ((8.23)/(99.44-63.60)) of the possible ESG improvement that the index could achieve (99.44 is the highest score in the S&P 500).

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

Exhibit 7: Benefits of the S&P 500 ESG Index versus the S&P 500

Environmental		Social		Governance	
9%	More exposure to companies with science-based targets and absolute climate-related targets in place across Scope 1 and 2 emissions	9%	More exposure to companies that monitor workforce diversity based on gender and other minority groups	8%	More exposure to companies with anti-corruption and bribery policies covering charitable and political contributions
7%	More exposure to companies that have proactively identified transition and physical climate risk, and their associated financial implications	6%	More exposure to companies that proactively assess potential human rights abuses throughout their supply chain	7%	More exposure to companies with insurance for IT and cybersecurity incidents, where executives engage in cybersecurity strategy, and that provide employee training on related escalation processes
6%	More exposure to companies with annual greenhouse gas emission savings and associated cost savings	5%	More exposure to companies that provide long-term incentives to employees below the senior management level paid out after three years, on average	6%	More exposure to companies that inform their customers of privacy protection issues, including the option to decide how private data are collected, used, retained, and processed

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 are calculated using the question-level data in S&P Global's Corporate Sustainability Assessments (2020 methodology year). These metrics are calculated using index data as of April 30, 2021, 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 (see Exhibit 8), the index has had realized tracking errors between 1%-2%, almost identical volatility, and some welcome outperformance over the benchmark S&P 500.

The index has indeed delivered on its objective—with realized tracking errors between 1%-2%, 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	315
Float-Adjusted Market Cap (USD Billions)	35,380	26,691
ANNUALIZED TOTAL RETURNS (%)		
10-Year	14.17	14.54
5-Year	17.42	18.09
3-Year	18.67	20.07
1-Year	45.98	46.41
EXCESS RETURNS (%)		
10-Year	-	0.37
5-Year	-	0.67
3-Year	-	1.40
1-Year	-	0.42
ANNUALIZED RISK (%)		
10-Year	13.63	13.44
5-Year	14.99	14.83
3-Year	18.52	18.31
REALIZED TRACKING ERROR (%)		
10-Year	-	1.06
5-Year	-	1.11
3-Year	-	1.33
1-Year	-	1.83

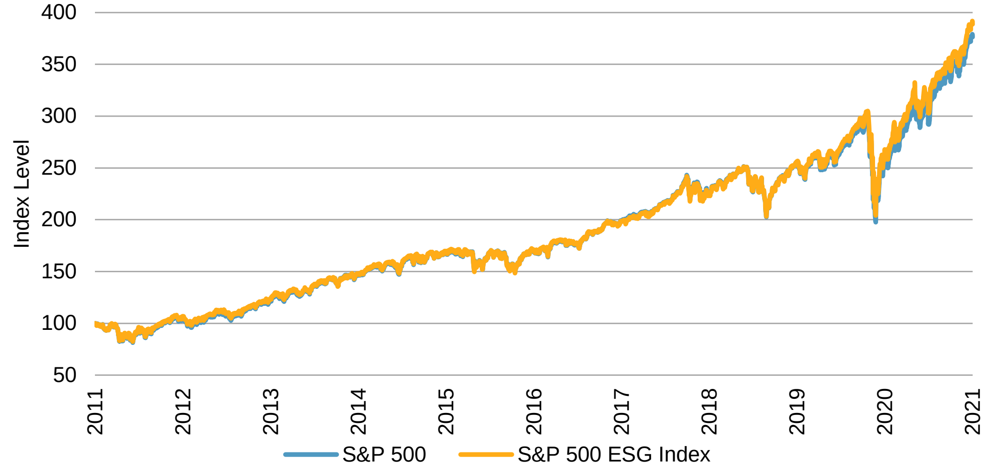
Source: S&P Dow Jones Indices LLC. Data as of April 30, 2021. Past performance is no guarantee of future results. Index performance based on total return in USD. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Despite excluding more than 24% of the constituents, the S&P 500 ESG Index achieved a similar return profile to the S&P 500, along with a myriad of sustainability enhancements.

Exhibits 9 and 10 further illustrate the performance 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 24% 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.

The 10-year historical performance profile demonstrates that the S&P 500 ESG Index generally succeeded in targeting the performance of the benchmark.

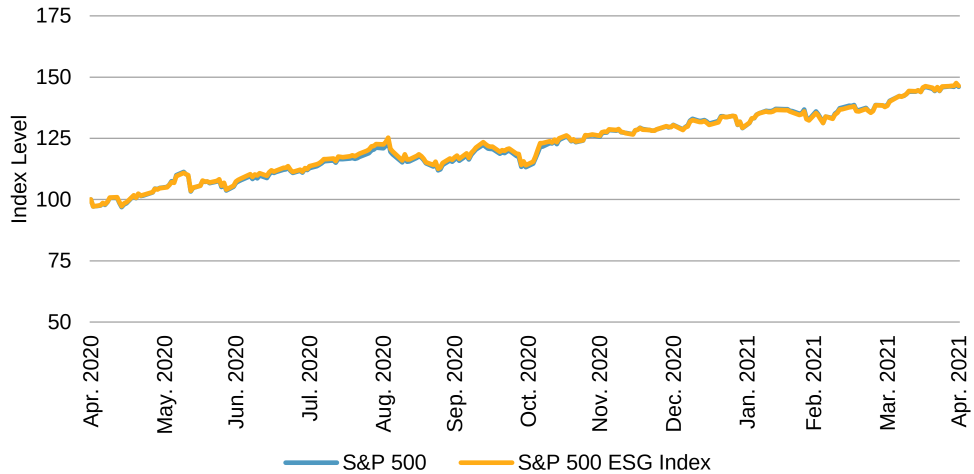
Exhibit 9: 10-Year Historical Back-Tested Performance of the S&P 500 ESG Index versus the S&P 500



Source: S&P Dow Jones Indices LLC. Data from April 30, 2011, to April 30, 2021. Index performance based on daily total return 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.

Over the past year when the index was live, notwithstanding turbulent markets, the strategy achieved an excess return of 0.42%, while remaining close to the benchmark with 1.83% tracking error.

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 April 30, 2020, to April 30, 2021. 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 generally succeeded in targeting the performance of the benchmark S&P 500. However, it is worth paying special attention to performance since January 2019, when the index was live. For instance, over the one-year timeframe from April 2020 to April 2021, the ESG index achieved an excess return of 0.42%, while remaining close to the benchmark with a 1.83% tracking error.

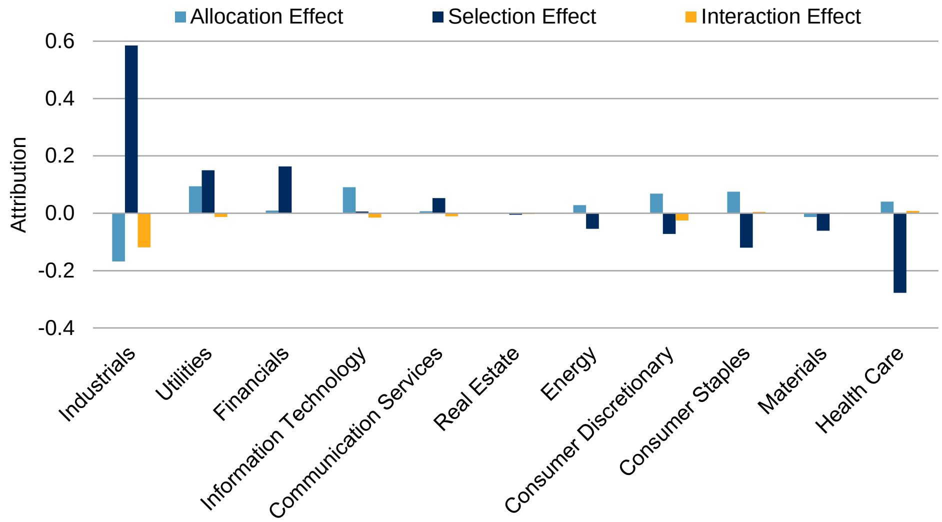
Performance Attribution: A Story of Selection

Since 2019, the S&P 500 ESG Index has provided some welcome outperformance.

In addition to performing in line with the S&P 500, the S&P 500 ESG Index has 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 overexposure to the IT sector or underexposure 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. 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.

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, FactSet. Data as of April 30, 2021. Index performance based on daily total return 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, we can infer that a rules-based approach, driven by sustainability principles and a materiality-weighted ESG scoring framework, has increased the index allocation to several successful names that drove the outperformance.

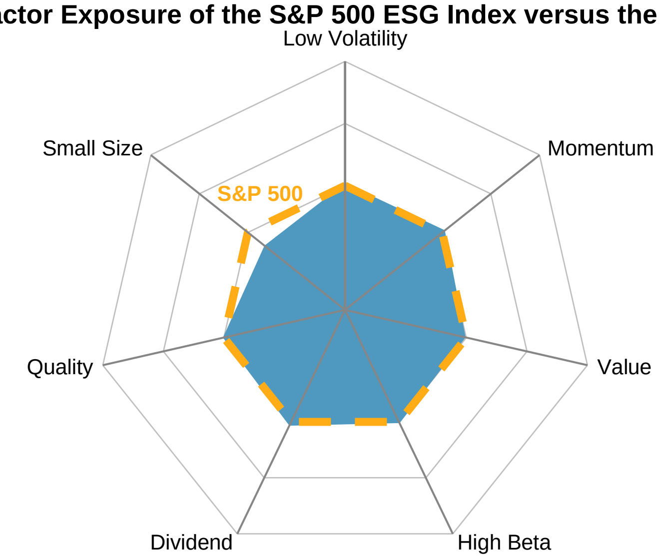
The question sometimes arises whether the S&P 500 ESG Index exhibits any unintended factor exposures that might help to explain its recent outperformance.

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. As Exhibit 12 demonstrates, however, the factor tilts were in fact quite similar to the S&P 500.

The factor tilts were in fact quite similar to the S&P 500.

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 April 30, 2021. 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,[10] 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.

[10] Drempetic, 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).

REVIEWING THE RESULTS OF THE 2021 ANNUAL 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.

In the annual rebalance in April 2021, 21 companies left the S&P 500 ESG Index and 45 companies were added. Exhibits 13 and 14 show the largest adds and drops in terms of market cap.

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

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

COMPANY	WEIGHT (%)	REASON
Tesla, Inc.	2.04	Tesla was added to the S&P 500, with the lowest S&P DJI ESG Score (ranked 5/5) in the Automobiles & Components industry group, it accounted for 75% of the industry group weight and was therefore selected for inclusion.
Walt Disney Co.	1.27	Walt Disney had a large S&P DJI ESG Score increase, with notable improvements in environmental reporting, occupational health & safety, and labor practice indicators. The company now ranks 10/22 in the Media & Entertainment industry group.
Walmart Inc.	0.73	Walmart had a slight increase in S&P DJI ESG Score, with improvements in genetically modified organisms, environmental policy and management, human rights, and materiality criteria, outranking Costco to take its place in the index. Walmart now ranks at 4/5 in the Food & Staples Retailing industry group.
Oracle Corp.	0.53	Oracle experienced a large S&P DJI ESG Score increase, with notable improvements in environmental policy & management and human capital development. Oracle now ranks as 7/34 in the Software & Services industry group.
Applied Materials Inc.	0.46	Applied Materials had a large S&P DJI ESG Score increase, with notable improvements in climate strategy and operational eco-efficiency. The company is now ranked 7/20 in the Semiconductors & Semiconductor Equipment industry group.
Booking Holdings Inc.	0.38	Booking Holdings slightly improved their S&P DJI ESG Score, with notable improvements in policy influence and privacy protection. This brought the company to rank 9/18 in the Consumer Services industry group.
Charter Communications Inc.	0.36	Charter experienced a large S&P DJI ESG Score increase, with notable improvements in social reporting and corporate citizenship & philanthropy. This led to the company being ranked 14/22 in the Media & Entertainment industry group.
Progressive Corp.	0.22	Progressive Corp experienced a large S&P DJI ESG Score increase, with notable improvements in corporate citizenship & philanthropy and tax strategy. The company now ranks 15/22 in the Insurance industry group.
Analog Devices Inc.	0.21	Analog Devices experienced a large S&P DJI ESG Score increase, with improvements in labor practice indicators and social reporting. The company now ranks 8/20 in the Semiconductors & Semiconductor Equipment industry group.
Dow Inc.	0.17	Dow was previously not covered by ESG data, so it was omitted per index methodology. Now with coverage, Dow ranks 3/28 in the Materials industry group.

Source: S&P Dow Jones Indices LLC. Data as of April 30, 2021. Table is provided for illustrative purposes.

In the annual rebalance in April 2021, 21 companies left the S&P 500 ESG Index and 45 companies were added.

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

COMPANY	WEIGHT (%)	REASON
Facebook Inc.	2.91	Facebook experienced a large S&P DJI ESG Score decrease, notably driven by decreases in environmental reporting, operational eco-efficiency, and policy influence. This decrease, coupled with S&P DJI ESG Score increases by other Media & Entertainment members such as Walt Disney and Charter, led Facebook to be removed. Facebook is now ranked at 17/22 in the industry group.
Wells Fargo & Co.	0.66	Wells Fargo experienced an S&P DJI ESG Score increase, with notable improvements in environmental reporting, human rights, and policy influence criteria. However, it still was ranked lower than peers and was not selected. The company ranks 9/18 in the Banks industry group.
Costco Wholesale Corp.	0.64	Costco experienced a slight increase in its S&P DJI ESG Score, with notable improvements in corporate governance and raw material sourcing, but it was not enough to outrank Walmart, who took its spot in the industry group. Costco now ranks 5/5 in the Food & Staples Retailing industry group.
Aon PLC	0.21	Aon experienced an S&P DJI ESG Score increase, with score improvements in human capital development and talent attraction & retention. However, peers in the Insurance industry group, including Progressive, improved their S&P DJI ESG Scores to higher numbers and were selected above Aon, assigning the company an industry group rank of 18/22.
American Intl Group Inc.	0.16	American International experienced an S&P DJI ESG Score increase. However, peers in the Insurance industry group, including Progressive, improved their S&P DJI ESG scores to higher numbers and were selected above American International, assigning the company an industry group rank of 19/22.
Nucor Corp.	0.10	Nucor experienced a slight increase in S&P DJI ESG Score, with notable improvements in human rights criteria. It still remains ranked below other Materials members and was not selected for inclusion. The company ranks at 27/28 in the industry group.
Vulcan Materials Co.	0.09	Vulcan Materials experienced a slight S&P DJI ESG Score increase, with notable increases in climate strategy and labor practice indicators. However, it was outranked by other Materials members, including Dow. Vulcan is now ranked at 24/28 in the industry group.
Alexandria Real Estate Eqty	0.09	Alexandria Real Estate experienced a large S&P DJI ESG Score decrease, with notable score decreases in climate strategy, environmental reporting, stakeholder engagement, and codes of business conduct. The company now ranks 27/29 in the Real Estate industry group.
Expeditors Intl of WA Inc.	0.07	Expeditors International experienced a slight increase in its S&P DJI ESG Score, with notable improvements in policy influence and human capital development. It was not ranked high enough for index inclusion compared with peers, however, receiving a ranking of 9/15 in the Transportation industry group.
Baker Hughes Company	0.06	Baker Hughes experienced an S&P DJI ESG Score decrease, with notable decreases in social reporting, corporate citizenship & philanthropy scores, assigning the company an Energy industry group rank of 15/23.

Source: S&P Dow Jones Indices LLC. Data as of April 30, 2021. 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 15 lists the largest companies that were not included in the index following the annual rebalance.

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: 10 Largest Companies to Remain Out of the S&P 500 ESG Index Since Launch

COMPANY	REASON FOR NOT BEING SELECTED IN 2021
Berkshire Hathaway B	Disqualifying S&P DJI ESG Score
Netflix Inc	Disqualifying UNGC score and disqualifying S&P DJI ESG Score
Broadcom Inc	Eligible, but not selected
Honeywell Int Inc	Controversial weapons involvement
Philip Morris Intl	Tobacco involvement
Boeing Co	Controversial weapons involvement
Intuitive Surgical Inc	Eligible, but not selected
Lockheed Martin	Controversial weapons involvement
Altria Group Inc	Tobacco involvement
Stryker Corp	Eligible, but not selected

Source: S&P Dow Jones Indices LLC. Data as of April 30, 2021. Table is provided for illustrative purposes.

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 launch on Jan. 28, 2019. In all, 91 companies have remained in the index since 2019.

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

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.	2,074.55
JP Morgan Chase & Co.	469.35
UnitedHealth Group Inc.	376.99
Procter & Gamble	328.54
Bank of America Corp.	307.91
Adobe Inc.	243.66
Exxon Mobil Corp.	242.32
Verizon Communications Inc.	239.14
Intel Corp.	233.74
AT&T Inc.	224.01

Source: S&P Dow Jones Indices LLC. Data as of April 30, 2021. Table is provided for illustrative purposes.

Individual Case Studies

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

INCLUSION DRIVEN BY S&P DJI ESG SCORE: FACEBOOK

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

After losing its standing in the S&P 500 ESG Index in 2019, Facebook was added back into the index in the April 2020 annual rebalance. This was the result of Facebook's higher S&P DJI 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 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 S&P DJI 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.

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

Facebook was later removed from the index with the annual rebalance in 2021 due to a significant S&P DJI ESG Score decrease, notably driven by decreases in environmental reporting, operational eco-efficiency, and policy influence. However, this particular example continues to hold as an illustration of how a company's S&P DJI ESG Score can affect its standing in the index each year.

EXCLUSION DRIVEN BY LOW UNGC SCORE: TWITTER

In 2020, 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 had resisted its workers' right to organize.

Twitter was excluded from the eligible universe of companies to be selected in 2020 due to its relatively low UNGC score.

EXCLUSION DRIVEN BY MEDIA & STAKEHOLDER ANALYSIS: JOHNSON & JOHNSON

In 2020, Johnson & Johnson was excluded from the index after a S&P Global Media & Stakeholder Analysis (MSA) resulted in this company's removal in October 2019. This MSA case was triggered by several controversies, including:

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

- 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.

An Ecosystem Is Evolving

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

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 4.5 billion to date.[11] In addition, futures listed on the CME have traded over USD 20 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.

CONCLUSION

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.

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 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.

[11] Data as of April 30, 2021.

APPENDIX: FROM LARGE CAP TO ALL CAP: INTRODUCING THE S&P MIDCAP 400® ESG INDEX AND THE S&P SMALLCAP 600® ESG INDEX

On Jan. 18, 2021, S&P Dow Jones Indices expanded the S&P ESG Index Series to include ESG versions of the small- and mid-cap U.S. equity benchmarks, the S&P SmallCap 600 and the S&P MidCap 400.

Due to generally poor levels of ESG disclosure among small- and medium-sized companies, several methodological adjustments were applied to ensure the indices may continue to satisfy the objective of the S&P ESG Index Series. That is, to improve sustainability characteristics while maintaining similar industry group weights as the benchmark.[12] These adjustments include the following.

Amendments to the S&P ESG Index Series Methodology

In the standard S&P ESG Index Series Methodology (see Step 2 of Exhibit 3), companies that rank among the bottom 25% of the S&P DJI ESG Score among an index's GICS industry group globally are excluded from the index.[13] For the S&P MidCap 400 ESG Index and S&P SmallCap 600 ESG Index, however, companies are only deemed ineligible based on their S&P DJI ESG Score if any of the following criteria are satisfied.

1. The S&P DJI ESG Score falls within the worst 25% of scores from the company's GICS industry group in the underlying index.
2. The S&P DJI ESG Score falls within the worst 10% of scores in the company's underlying index.
3. If, after Steps 1 and 2, less than 75% of the weight of the underlying index remain eligible, the above steps are relaxed as follows.
    a. The S&P DJI ESG Score falls within the worst 20% of scores from the company's GICS industry group in the underlying index. If after this relaxation the 75% target is still not met, then Step 1 is further relaxed as follows.
        i. The S&P DJI ESG Score falls within the worst 15% of scores from the company's GICS industry group in the underlying index.

At this point, if the target is still not met, no further relaxation is performed, even if the 75% target is not satisfied.

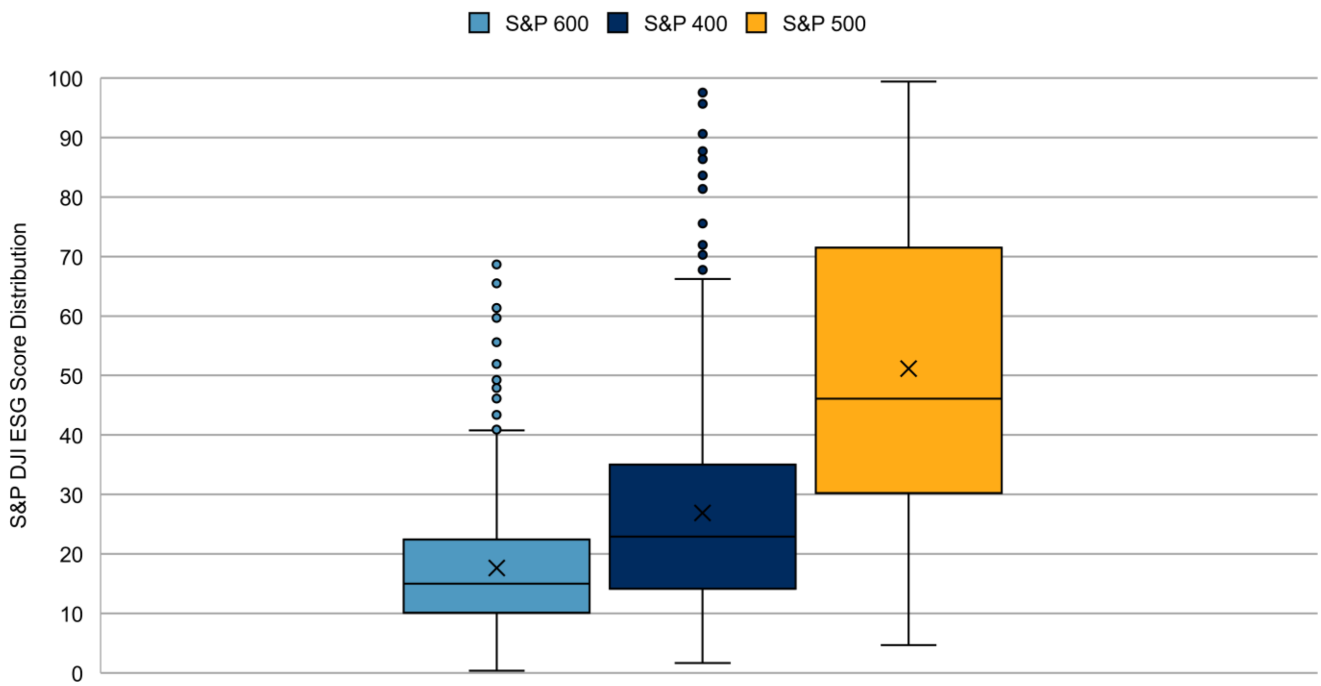
Other exclusionary screens pertaining to controversial weapons, thermal coal, tobacco, UNGC violators, and company controversies are applied as per the standard S&P ESG Index Series Methodology. In addition, the process for selecting constituents from the eligible universe—by targeting the top 75% of market capitalization within index industry groups where companies are ranked by S&P DJI ESG Score—remains the same.

[12] As stated on page 4, the S&P 500 ESG Index methodology was developed with two objectives: (1) To maintain similar overall industry group weights as the S&P 500; and (2) 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. For more information on the S&P ESG Index Series Methodology, please see https://www.spglobal.com/spdji/en/documents/methodologies/methodology-sp-esg-index-series.pdf.

[13] Where the global universe for this categorization is defined as the combined constituents of the S&P Global LargeMidCap and S&P Global 1200 as of the rebalancing reference date.

The reasons for these adjustments are twofold. First, there is relatively less disclosure among medium- and small-sized firms than larger companies with respect to ESG;[14] second, larger companies tend to perform better on ESG issues,[15] the reasons for which are discussed on page 12. As such, we find a positive correlation between S&P DJI ESG Scores and company size (see Exhibit A1). This means that if the methodology were to apply the standard S&P DJI ESG Score exclusion criteria, it would result in an eligible universe that is too narrow to maintain a broad and diversified index and, therefore, would be unable to satisfy the objective of the S&P ESG Index Series.

Exhibit A1: S&P 600™, S&P 400™, and S&P 500 S&P DJI ESG Score Distributions



Source: S&P Dow Jones Indices LLC. Data as of April 30, 2021. Chart is provided for illustrative purposes.

Index Composition

With these adjustments, 119 constituents of the S&P 400 and 191 of the S&P 600 were either excluded from or not selected for inclusion in their ESG variants. As of the last rebalance, this amounted to removing 28.28% and 27.53% of the market capitalization of the S&P MidCap 400 ESG Index and S&P SmallCap 600 ESG Index, respectively. Exhibit A4 provides the reasons for these exclusions while Exhibit A5 reviews the composition of the indices.

[14] According to Sardon, M., "The Potentially High Cost of Not Disclosing ESG Data," *Wall Street Journal* (2019), "Midsize and small companies generally lag behind their larger peers in terms of disclosure because they are less likely to have resources such as ESG-dedicated team or a sustainability department."

[15] A positive correlation between sustainability performance and firm size is generally observed due to the greater visibility, access to resources, and operating scale associated with large firms. For example, see Drempetic, 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) for more information.

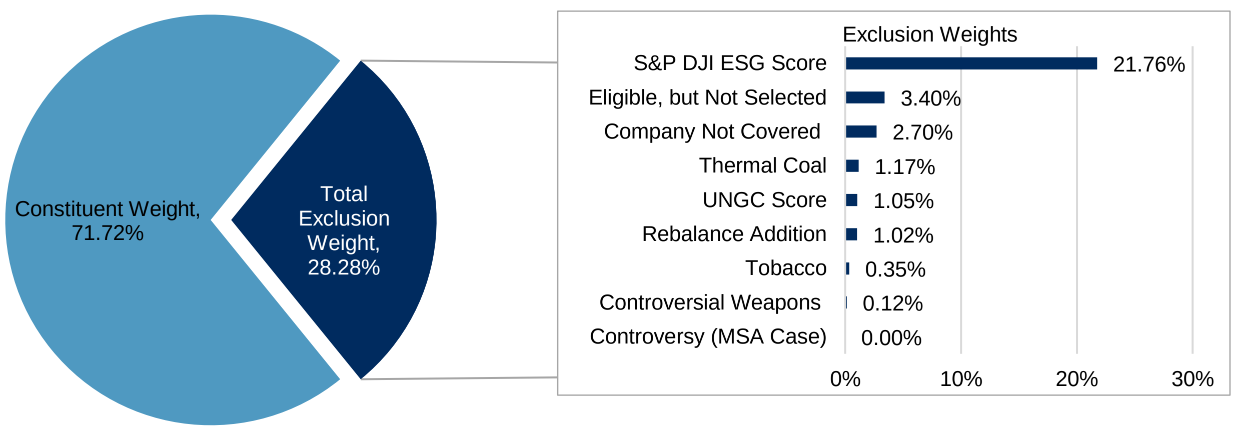
Exhibit A4: Reasons for Exclusion from the S&P MidCap 400 ESG Index and S&P SmallCap 600 ESG Index

REASON FOR EXCLUSION	S&P MIDCAP 400 ESG INDEX		S&P SMALLCAP 600 ESG INDEX	
	NUMBER OF EXCLUSIONS	WEIGHT IN BENCHMARK (%)	NUMBER OF EXCLUSIONS	WEIGHT IN BENCHMARK (%)
Added to the Underlying Index after Rebalance Reference Date	4	1.0	6	0.9
Company Not Covered by ESG Data	11	2.7	14	1.5
Eligible but Not Selected (Not Part of the Top 75% of Industry Group Market Cap)	12	3.4	94	14.8
Involved in Controversial Weapons	1	0.1	1	0.3
Involved in Thermal Coal	6	1.2	1	0.0
Involved in Tobacco Production or Sales	1	0.3	5	0.7
S&P DJI ESG Score in Bottom 25% of Local GICS Industry Group or Bottom 10% Overall	95	21.8	66	8.8
UNGC Score Too Low	5	1.1	11	1.4

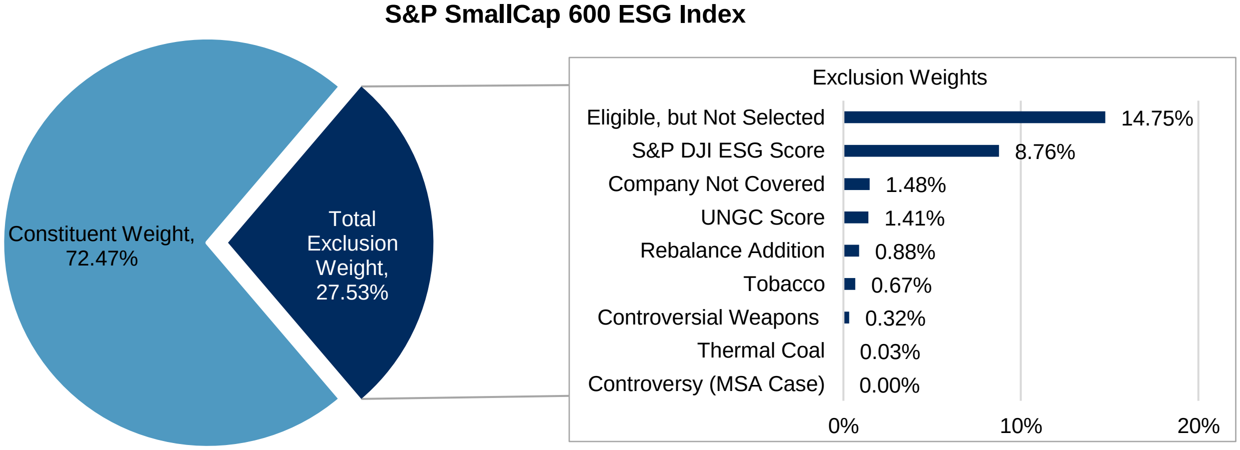
Source: S&P Dow Jones Indices LLC. Data as of April 30, 2021. Table is provided for illustrative purposes. Constituents may be flagged according to multiple exclusion criteria; sums and weights may exceed totals.

Exhibit A5: Underlying Index Weights by S&P MidCap 400 ESG Index and S&P SmallCap 600 ESG Index Compositions

S&P MidCap 400 ESG Index



S&P SmallCap 600 ESG Index



Source: S&P Dow Jones Indices LLC. Data as of April 30, 2021. Charts are provided for illustrative purposes. Constituents may be flagged according to multiple exclusion criteria; sums and weights may exceed totals.

Results and Performance

ABSOLUTE S&P DJI ESG SCORE IMPROVEMENT

At the aggregate score level, the S&P MidCap 400 ESG Index and S&P SmallCap 600 ESG Index achieved absolute S&P DJI ESG Score improvements of 6.89% and 3.99%, respectively, relative to their benchmarks.[16] These modest, albeit meaningful, improvements are representative of the challenges associated with S&P DJI ESG Score transparency and performance among smaller companies.

However, these indices also represent a new sustainable frontier in a space left largely untouched by current sustainable indexing. For the first time, companies of this size are now being rewarded or penalized on the basis of their sustainability credentials through a transparent and rules-based selection process, which should serve to raise the bar on sustainable business practices as they seek to improve their standing in the indices over time. This, coupled with S&P DJI's unparalleled levels of direct company engagement via the CSA that has historically served as a guide for companies to progress along their sustainability journey, means these indices are uniquely positioned to reshape corporate sustainability behaviors below a certain cap size.

Ultimately, whether or not such improvements will amount to a widening "sustainability premium" (in terms of higher levels of absolute S&P DJI ESG Score improvements as certain companies improve more than others) or, rather, improve sustainability standards across *all* companies within the starting benchmark universe, remains to be seen. In either case, the potential enhancements in sustainability efforts would be welcome.

REALIZED ESG POTENTIAL

As with the S&P 500 ESG Index, another metric we can assess is the realized ESG potential of both indices. By this measure, the S&P MidCap 400 ESG Index and S&P SmallCap 600 ESG Index realized more than 9.59% and 7.65% of their ESG improvement potential of their respective starting universes.[17] In the case of the S&P 400 and S&P 600, a predominately negative skew (implied by a positive correlation between the S&P DJI ESG Score and firm size) that includes a handful of highly ranked outliers (see Exhibit A1), accounts for the relatively low levels of realized S&P DJI ESG Score potential. In other words, the generally low levels of S&P DJI ESG Score performance among small- and medium-sized companies makes it difficult to substantially enhance the sustainability profile while maintaining suitable diversification. The sensitivity of this particular metric to outliers explains the comparatively low levels of realized ESG potential. On the other hand, this also suggests that there is meaningful room for improvement in the sustainability practices of small- and medium-sized firms. Thus, the introduction of the S&P MidCap 400 ESG Index and S&P SmallCap 600 ESG Index

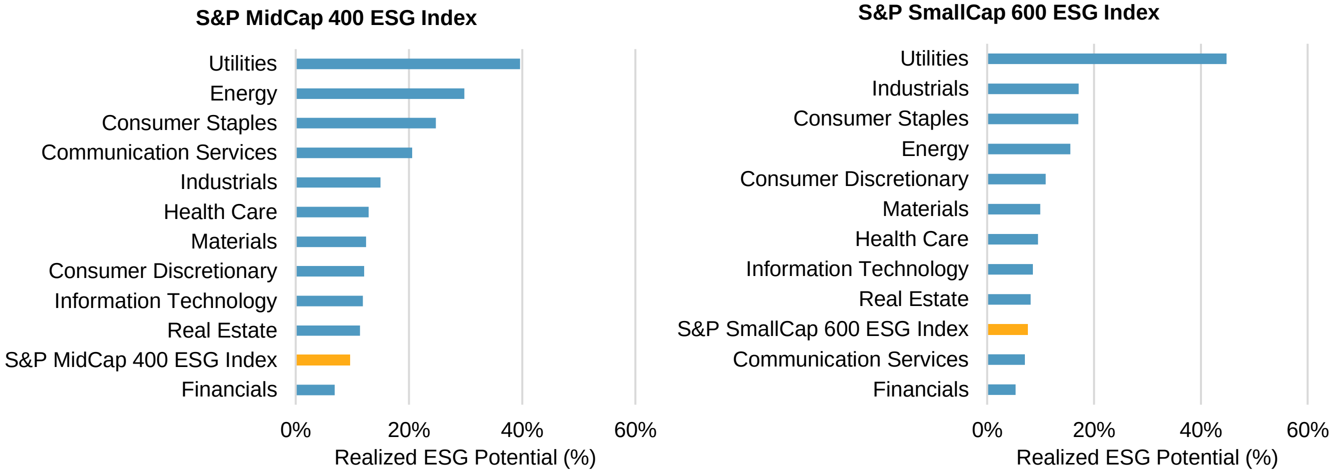
[16] As of April 30, 2021, the composite S&P DJI ESG Score of the S&P MidCap 400 ESG Index was 32.67 and the S&P SmallCap 600 ESG Index was 20.47, compared with the S&P 400 score of 25.79 and S&P 600 score of 16.48. S&P DJI ESG Scores are designed to be read as percentiles. A company score of 70 means that company has a higher score than 70% of its peers in that particular industry. Thus, a score of 25.79 means that the S&P 400 had a collectively higher score than 25.79% and the S&P 600 had a collectively higher score of 16.48% of the companies in the broader universe.

[17] As of April 30, 2021, a score increase of 6.89 associated with the S&P MidCap 400 ESG Index represents 9.59% ((6.89)/(97.58-25.79)) of the possible ESG improvement that the index could achieve (97.58 is the highest score in the S&P 400). Similarly, a score increase of 3.99 for the S&P SmallCap 600 ESG Index represents 7.65% ((3.99)/(68.65-16.48)) of the possible ESG improvement that the index could achieve (68.65 is the highest score in the S&P 600). Realized ESG potential is calculated as the percentage difference between the aggregate S&P DJI ESG Scores of the S&P MidCap 400 ESG Index and the S&P 400, relative to the strategy's maximum potential ESG improvement based on investing only in the single highest-ranked ESG scoring company in the benchmark.

successfully helps to raise sustainability standards and might underpin the strongest value proposition for the markets overall.

As with their large-cap counterpart, certain sectors fared better in terms of their realized ESG potential, and again in some cases, even more so than the index overall (see Exhibit A6).

Exhibit A6: Realized ESG Potential of the S&P MidCap 400 ESG Index and S&P SmallCap 600 ESG Index versus the Underlying Indices



Source: S&P Dow Jones Indices LLC. Data as of April 30, 2021. Realized ESG potential calculated as the percentage difference between the performance of the S&P MidCap 400 ESG Index and S&P 400 constituents and between the S&P SmallCap 600 ESG Index and S&P 600 across these metrics on a weighted average basis. Charts are provided for illustrative purposes.

REAL-WORLD BENEFITS

The S&P MidCap 400 ESG Index and S&P SmallCap 600 ESG Index also achieve numerous real-world ESG impacts, which provide a deeper view on the sustainability benefits. A small sample of these sustainability enhancements are highlighted in Exhibit A7. It is worth noting that the majority of these relate to the *transparency* of ESG issues, rather than actual *performance*. Again, this represents the generally low levels of ESG disclosure and sustainable business practices among small- and medium-sized firms. However, transparency and reporting are often the first steps as companies embark on their sustainability journeys, as the dictum “we first have to measure, before we can manage” suggests.

Exhibit A7: Benefits of the S&P MidCap 400 ESG Index and S&P SmallCap 600 ESG Index versus the Underlying Indices

S&P MidCap 400 ESG Index

Environmental

5% More exposure to companies that have an environmental management policy in place, which covers their products & services and the management of waste

4% More exposure to companies which have a climate-related target in place

3% More exposure to companies which disclose environmental indicators covering more than 75% of their revenues and business operations

Social

6% More exposure to companies which monitor and disclose the diversity of their workforce, including the overall representation of female employees

4% More exposure to companies that have a policy in place covering their commitment to respect human rights in accordance with internationally accepted standards

3% More exposure to companies which disclose social indicators covering more than 75% of their revenues and business operations

Governance

6% More exposure to companies which have a group-wide strategy that provides guidance to their corporate citizenship activities

5% More exposure to companies which have a Supplier Code of Conduct covering child labor, business ethics, and other fundamental human rights

5% More exposure to companies which disclose the process used to conduct their materiality analysis

S&P SmallCap 600 ESG Index

Environmental

4% More exposure to companies that have an environmental management policy in place that covers their suppliers and the management of waste

3% More exposure to companies that monitor and disclose water and energy consumption, as well as direct Scope 1 greenhouse gas emissions

2% More exposure to companies that disclose environmental indicators covering more than 75% of their revenues and business operations

Social

4% More exposure to companies that monitor and disclose the diversity of their workforce, including a breakdown based on gender and other minority groups

4% More exposure to companies that have a policy in place covering their commitment to respect human rights in accordance with internationally accepted standards

3% More exposure to companies that monitor and disclose the ratio of employees represented by an independent trade union or covered by collective bargaining agreement

Governance

6% More exposure to companies that have predefined relative financial metrics relevant for the Chief Executive Officer's variable compensation

5% More exposure to companies that have a supplier code of conduct covering child labor, business ethics, occupational health and safety standards, as well as working conditions

4% More exposure to companies that have group-wide codes of conduct specifically including discrimination, environment, and health and safety

Source: S&P Dow Jones Indices LLC. Data as of April 30, 2021. These are just a few examples of the numerous ways in which the S&P MidCap 400 ESG Index and S&P SmallCap ESG Index offer enhanced ESG representation. Increased index exposure to each ESG theme in the metrics are calculated using the question-level data in S&P Global's CSA (2020 methodology year). These metrics are calculated as the percentage difference between the performance of the S&P MidCap 400 ESG Index and S&P 400 constituents and between the performance of the S&P SmallCap 600 ESG Index and S&P 600 across these metrics on a weighted average basis. Charts are provided for illustrative purposes.

RISK-ADJUSTED PERFORMANCE PROFILES

As with the S&P 500 ESG Index, the S&P MidCap 400 ESG Index and S&P SmallCap 600 ESG Index seek to improve the sustainability profile of the respective index, while maintaining similar industry group weights as their underlying indices. The risk-adjusted performance metrics over a one-, three-, and five-year time horizon demonstrate that both ESG indices delivered realized tracking errors under 2.1%, almost identical volatility, and some welcome outperformance relative to their benchmarks, the S&P 400 and S&P 600 (see Exhibit A8).[18]

Exhibit A8: Performance Characteristics of the S&P MidCap 400 ESG Index and S&P SmallCap 600 ESG Index versus the Underlying Indices

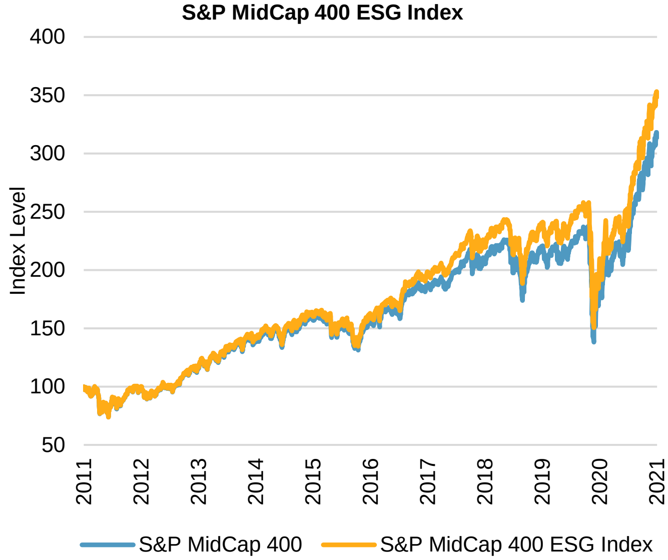
CATEGORY	S&P MIDCAP 400	S&P MIDCAP 400 ESG INDEX	S&P SMALLCAP 600	S&P SMALLCAP 600 ESG INDEX
Number of Constituents	400	280	601	411
Float-Adjusted Market Cap (USD Billions)	2,364	1,696	1,040	754
ANNUALIZED TOTAL RETURNS (%)				
10-Year	12.11	13.29	12.91	14.50
5-Year	15.10	16.84	15.79	17.26
3-Year	15.18	16.63	14.09	15.13
1-Year	67.90	70.98	76.85	82.70
EXCESS RETURNS (%)				
10-Year	-	1.18	-	1.59
5-Year	-	1.74	-	1.47
3-Year	-	1.45	-	1.04
1-Year	-	3.07	-	5.84
ANNUALIZED RISK (%)				
10-Year	16.90	17.10	18.73	18.70
5-Year	19.11	19.12	21.58	21.89
3-Year	23.78	23.82	26.17	26.59
REALIZED TRACKING ERROR (%)				
10-Year	-	1.04	-	1.40
5-Year	-	1.14	-	1.47
3-Year	-	1.28	-	1.68
1-Year	-	1.33	-	2.08

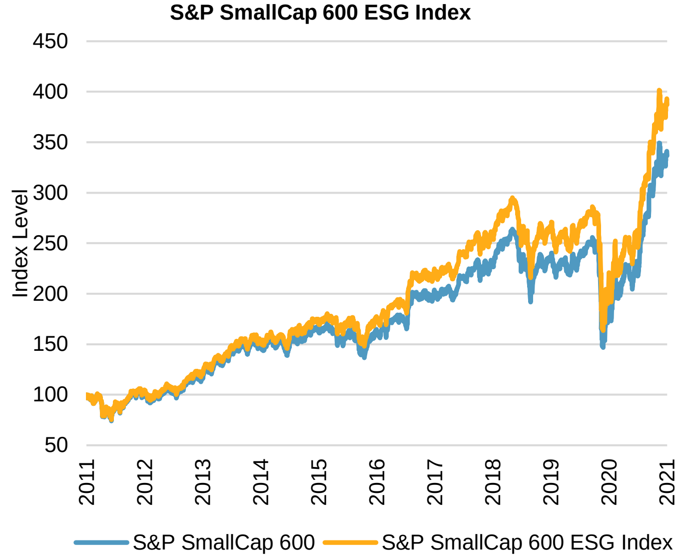
Source: S&P Dow Jones Indices LLC. Data as of April 30, 2021. Index performance based on total return in USD. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Despite excluding over 28% and 27% of market capitalization, respectively, the S&P MidCap 400 ESG Index and S&P SmallCap 600 ESG Index achieved similar return profiles to their benchmark indices across the 10-year and 1-year time frames (see Exhibits A9 and A10), alongside the sustainability enhancements discussed above.

[18] Prior to January 2019, Sustainalytics did not collect data on the corporate ownership indicator, so index history before that date does not reflect the impact of the indicator. The indicator, along with the other categories of involvement indicators, is applied at each rebalancing from January 2019 onwards.

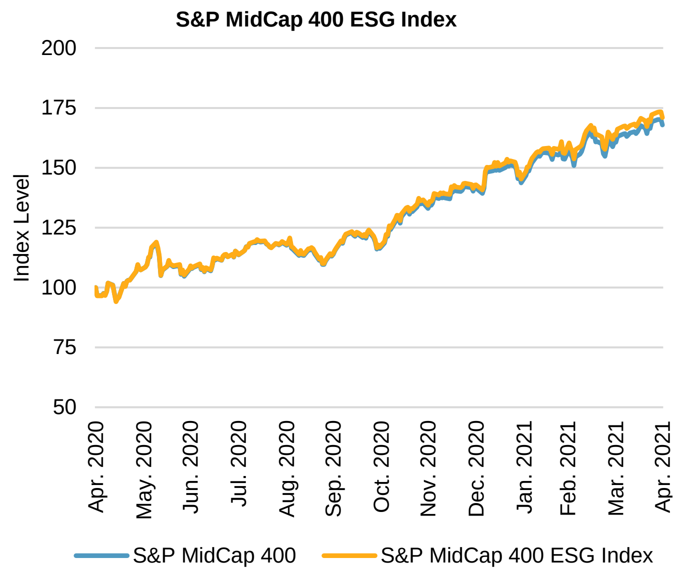
Exhibit A9: 10-Year Historical Back-Tested Performance of the S&P MidCap 400 ESG Index and S&P SmallCap 600 ESG Indices versus the Underlying Indices

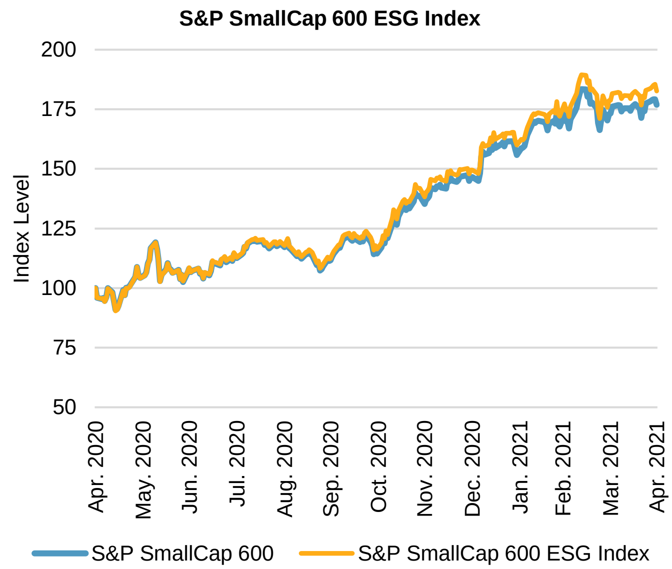




Source: S&P Dow Jones Indices LLC. Data from April 30, 2011, to April 30, 2021. Index performance based on daily total return in USD. Past performance is no guarantee of future results. Charts are provided for illustrative purposes and reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for information regarding the inherent limitations associated with back-tested performance.

Exhibit A10: One-Year Back-Tested Performance of the S&P MidCap 400 ESG Index and S&P SmallCap 600 ESG Index versus the Underlying Indices





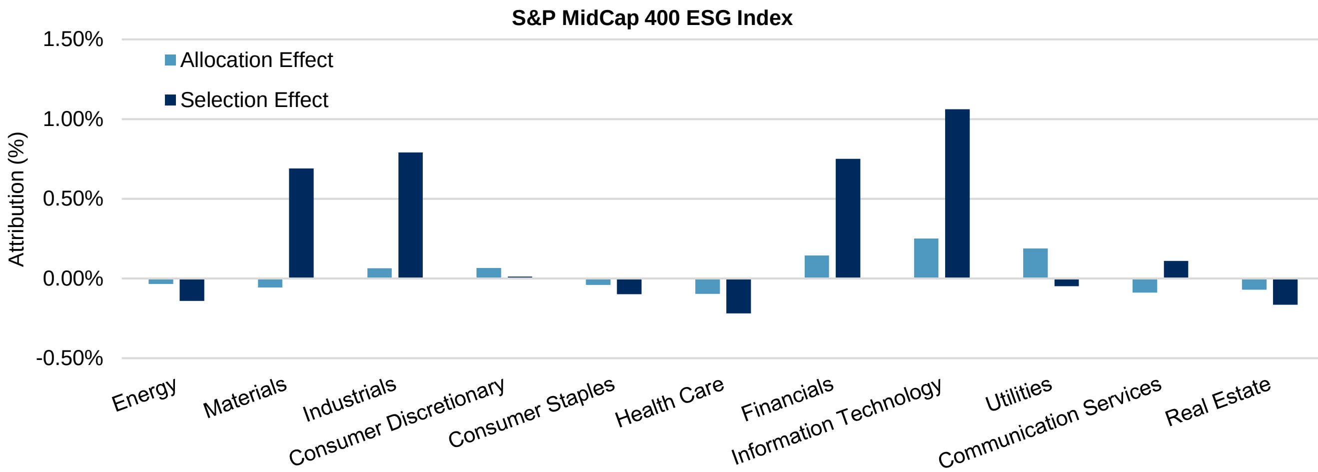
Source: S&P Dow Jones Indices LLC. Data from April 30, 2020, to April 30, 2021. Index performance based on daily total return in USD. Past performance is no guarantee of future results. Charts are provided for illustrative purposes and reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for information regarding the inherent limitations associated with back-tested performance.

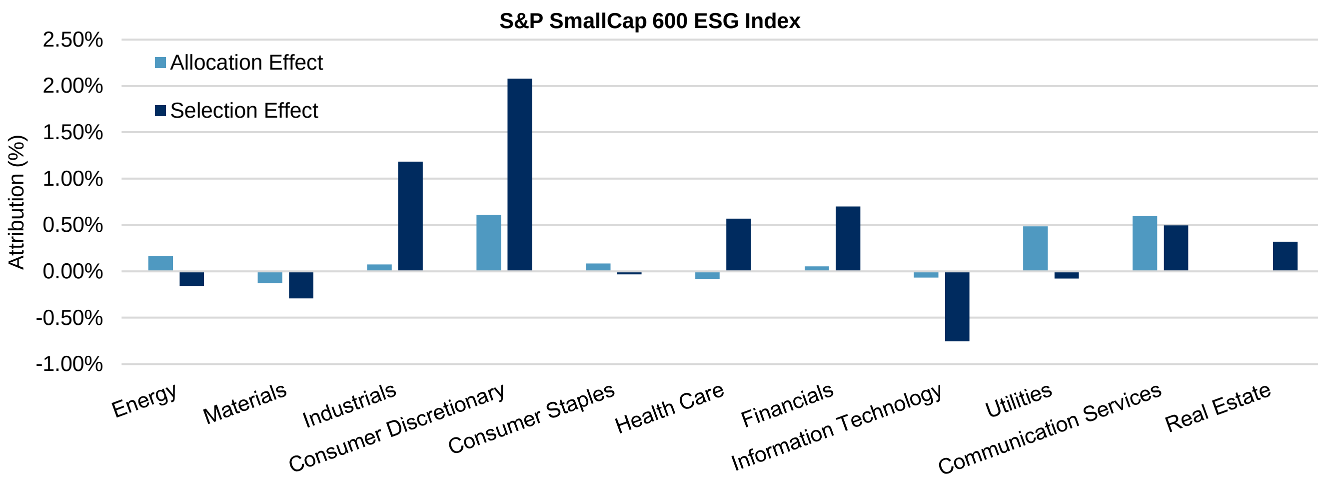
Performance Attribution

The relatively recent outperformance of the S&P 500 ESG Index merited a deeper look into the performance attribution over the past year (see Exhibit A11). However, both its small- and mid-cap ESG counterparts experienced similar outperformance over a much longer period of time. Performance attribution is instead provided over a 10-year time frame for the S&P MidCap 400 ESG Index and S&P Small Cap ESG Index (see Exhibit A11).

As we can see, the selection effect accounted for the majority of the outperformance associated with the small- and mid-cap ESG indices, in large part due to the broadly sector-neutral approach of the S&P ESG Index Series methodology. As with the S&P 500 ESG index, we can conclude that a rules-based selection process driven by ESG principles within the small- and mid-cap ESG variants resulted in an uptick in performance.

Exhibit A11: Historical Back-Tested Performance Attribution of the S&P MidCap 400 ESG Index and the S&P SmallCap ESG Index versus the Underlying Indices





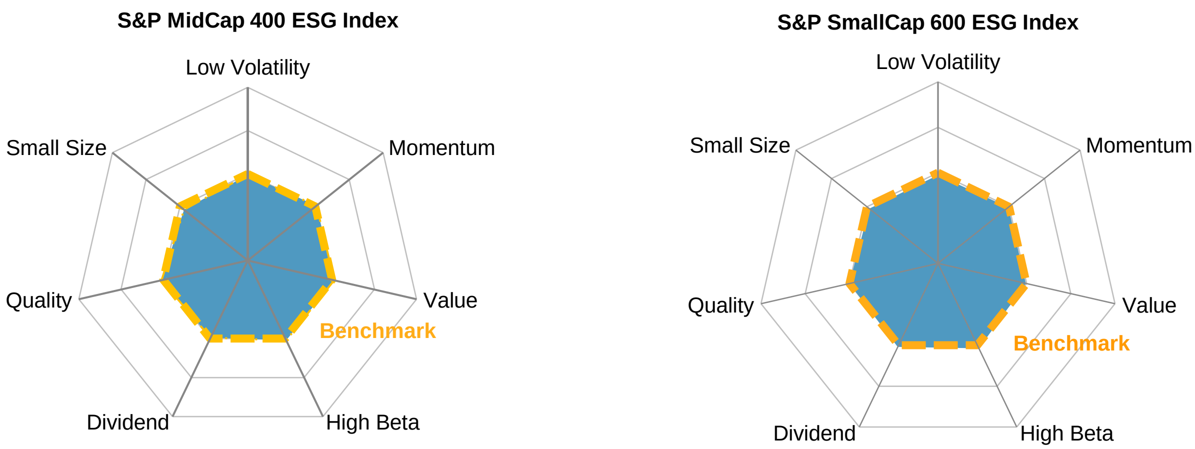
Source: S&P Dow Jones Indices LLC, StatPro. Data from April 30, 2020 to April 30, 2021. Index performance based on daily total return in USD. Past performance is no guarantee of future results. Charts are provided for illustrative purposes and reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Factor Exposure

Interestingly, though the S&P 500 ESG Index has exhibited a slight large-cap bias (see Exhibit A12), the S&P 400 MidCap ESG Index and S&P SmallCap 600 ESG Index had almost identical factor exposures to their respective benchmark indices (see Exhibit A12). As such, the historical outperformance cannot be explained away by any unintended factor exposure. This seems to suggest that ESG might just be a factor below a certain cap size, although further research is needed to confirm.

Moreover, as the sustainability credentials of such companies improve, it is also entirely possible that the largest among the small- and medium-sized firms comprising the S&P 400 and S&P 600 universe are better positioned to do so, such that we might possibly observe a similar increase in the underlying size bias associated with these indices over time. Nevertheless, the similarities in the overall factor exposure of both indices at present at least confirms that—just as their large-cap counterpart—the S&P MidCap 400 ESG Index and S&P SmallCap 600 ESG Index have been well positioned to do precisely what they are intended to do.

Exhibit A12: Factor Exposure of the S&P MidCap 400 ESG Index and S&P SmallCap 600 ESG Index versus the Underlying Indices



Source: S&P Dow Jones Indices LLC. Data as of April 30, 2021. Charts are provided for illustrative purposes.

Rebalance and Exclusions

As with all the indices within the S&P ESG Index Series, the small- and mid-cap ESG indices rebalance annually in April. At the time of the most recent rebalance, the S&P Midcap 400 ESG Index excluded 119 companies, and the S&P SmallCap ESG 600 Index excluded 191 companies.[19] The largest exclusions by market capitalization and the reason for their exclusion can be found in Exhibit A14.

[19] In September 2020, S&P DJI conducted an extraordinary rebalance on the S&P ESG Index Series in response to a public consultation that resulted in the exclusion of thermal coal companies. Many of the exhibits in the addendum reference the September extraordinary rebalance date. For more information on the public consultation and the extraordinary rebalance, please visit www.spglobal/spdji.

Exhibit A14: Largest Exclusions from the S&P Midcap 400 ESG Index and S&P SmallCap 600 ESG Index

S&P MIDCAP 400 ESG INDEX COMPANY	WEIGHT (%)	REASON
Trex Co	0.53	S&P DJI ESG Score in the bottom 25% of local GICS industry group or bottom 10% overall
Lennox International Inc	0.49	S&P DJI ESG Score in the bottom 25% of local GICS industry group or bottom 10% overall
Five Below Inc.	0.48	S&P DJI ESG Score in the bottom 25% of local GICS industry group or bottom 10% overall
Repligen Corp	0.46	S&P DJI ESG Score in the bottom 25% of local GICS industry group or bottom 10% overall
Pra Health Sciences Inc	0.46	Eligible but not selected
Essential Utilities Inc	0.45	S&P DJI ESG Score in the bottom 25% of local GICS industry group or bottom 10% overall
Reliance Steel & Aluminum	0.43	S&P DJI ESG Score in the bottom 25% of local GICS industry group or bottom 10% overall
Builders FirstSource	0.42	S&P DJI ESG Score in the bottom 25% of local GICS industry group or bottom 10% overall
MKS Instruments Inc	0.42	S&P DJI ESG Score in the bottom 25% of local GICS industry group or bottom 10% overall
Watsco Inc	0.41	S&P DJI ESG Score in the bottom 25% of local GICS industry group or bottom 10% overall
S&P SMALLCAP 600 ESG INDEX COMPANY	**WEIGHT (%)**	**REASON**
CROCS	0.63	Eligible but not selected
NeoGenomics Inc.	0.55	Eligible but not selected
UFP Industries, Inc	0.49	S&P DJI ESG Score in the bottom 25% of local GICS industry group or bottom 10% overall
Innovative Industrial Properties	0.42	Eligible but not selected
Resideo Technologies Inc	0.41	Eligible but not selected
Alarm.com Holdings, Inc.	0.39	S&P DJI ESG Score in the bottom 25% of local GICS industry group or bottom 10% overall
Stamps.com Inc	0.36	Eligible but not selected
Korn Ferry	0.35	Eligible but not selected
LGI Homes Inc	0.35	Eligible but not selected
PDC Energy Inc	0.35	S&P DJI ESG Score in the bottom 25% of local GICS industry group or bottom 10% overall

Source: S&P Dow Jones Indices LLC. Data as of April 30, 2021. Table is provided for illustrative purposes.

Conclusion

The expansion of the S&P DJI ESG Index Series into the mid- and small-cap universes represents a watershed moment in the landscape for sustainable investing. As the first of their kind, the S&P MidCap 400 ESG Index and S&P SmallCap 600 ESG Index enable market participants to enhance the sustainability characteristics of the core of their portfolios, and across *all* cap sizes, and have historically maintained similar levels of risk-adjusted performance to their respective benchmarks. Most importantly, however, they are uniquely positioned to drive greater reporting and sustainability standards among small- and medium-sized firms, as companies compete to join the ranks of the ESG indices for the first time ever.

PERFORMANCE DISCLOSURE/BACK-TESTED DATA

The S&P 500 ESG Index was launched January 28, 2019. The S&P SmallCap 600 ESG Index and S&P MidCap 400 ESG Index were launched January 11, 2021. 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.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.

Typically, when S&P DJI creates back-tested index data, S&P DJI uses actual historical constituent-level data (e.g., historical price, market capitalization, and corporate action data) in its calculations. As ESG investing is still in early stages of development, certain datapoints used to calculate S&P DJI's ESG indices may not be available for the entire desired period of back-tested history. The same data availability issue could be true for other indices as well. In cases when actual data is not available for all relevant historical periods, S&P DJI may employ a process of using "Backward Data Assumption" (or pulling back) of ESG data for the calculation of back-tested historical performance. "Backward Data Assumption" is a process that applies the earliest actual live data point available for an index constituent company to all prior historical instances in the index performance. For example, Backward Data Assumption inherently assumes that companies currently not involved in a specific business activity (also known as "product involvement") were never involved historically and similarly also assumes that companies currently involved in a specific business activity were involved historically too. The Backward Data Assumption allows the hypothetical back-test to be extended over more historical years than would be feasible using only actual data. For more information on "Backward Data Assumption" please refer to the FAQ. The methodology and factsheets of any index that employs backward assumption in the back-tested history will explicitly state so. The methodology will include an Appendix with a table setting forth the specific data points and relevant time period for which backward projected data was used.

Index returns shown do not represent the results of actual trading of investable assets/securities. S&P Dow Jones Indices maintains the index and calculates the index levels and performance shown or discussed but does not manage actual assets. Index returns do not reflect payment of any sales charges or fees an investor may pay to purchase the securities underlying the Index or investment funds that are intended to track the performance of the Index. The imposition of these fees and charges would cause actual and back-tested performance of the securities/fund to be lower than the Index performance shown. As a simple example, if an index returned 10% on a US $100,000 investment for a 12-month period (or US $10,000) and an actual asset-based fee of 1.5% was imposed at the end of the period on the investment plus accrued interest (or US $1,650), the net return would be 8.35% (or US $8,350) for the year. Over a three-year period, an annual 1.5% fee taken at year end with an assumed 10% return per year would result in a cumulative gross return of 33.10%, a total fee of US $5,375, and a cumulative net return of 27.2% (or US $27,200).

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