

EQUITY 101 | Global

S&P Environmental and Socially Responsible Indices

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There is a growing trend among investors toward thinking about value creation in ways that extend beyond financial return—typically within environmental and social arenas. Creating this type of positive impact requires new management techniques and new benchmarks with which to measure progress. Related investment policies may incorporate a range of goals in a broad aspirational spectrum, from minimizing negative effects to explicitly targeting the maximization of positive effects.

Socially responsible investments, as defined by J.P. Morgan, “seek to minimize negative impact.”¹ This category of investments has increased in the U.S. from USD 3.7 trillion at the outset of 2012 to USD 6.6 trillion at the start of 2014—an increase of 76%.² The ambition of “impact investing” is to finance projects that are expected to have demonstrable positive impacts on well-defined environmental or social goals. Historically, such investment opportunities have been more prevalent in the private equity and debt domain, but S&P Dow Jones Indices has partnered with RobecoSAM to offer the measurement of, and access to, the listed impact investing space. Two pleasing results of our efforts have been 1) providing opportunities to participate in impact investing within the universe of listed securities, and 2) observing that firms that are successful in anticipating environmental and social opportunities may enjoy robust long-term financial performance. In other words, investing in such companies could help investors align their portfolios with personal values without having to inordinately forgo financial return.

IMPACT INVESTING THROUGH LISTED SECURITIES

S&P Dow Jones Indices’ partner in the listed impact investing space is RobecoSAM, a global leader in assessing company-level environmental, social, and governance practices. RobecoSAM provides E&S scores on large, publicly listed firms worldwide, and S&P DJI uses this robust data set to construct our E&S indices. Our collaboration with RobecoSAM has created the opportunity to identify companies within the S&P DJI benchmark families that have positive impacts on the world we share, above and beyond generating financial return for shareholders.

Our work with RobecoSAM has revealed that not only can these firms deliver positive environmental and social impacts, but they are also frequently positioned to capitalize on emerging long-term opportunities and may therefore deliver strong financial performance. Exhibit 1 shows a few examples of environmental and social initiatives that could result in cost savings and revenue generation.³

¹ J.P. Morgan, “Impact Investments: An Emerging Asset Class”, November 2010.

² U.S. SIF Foundation’s 2014 Report on Sustainable and Responsible Investing Trends in the United States.

³ RobecoSAM Sustainability Yearbook 2015.

Exhibit 1: Environmental and Social Initiatives That Could Improve Financial Performance of Companies

Environmental Cost Savings	<ul style="list-style-type: none"> Decreased energy consumption Increased load factor for transportation Decreased business travel—increase of virtual meetings
Environmental Revenue Generation	<ul style="list-style-type: none"> Development of new products with lower environmental impact Improvements of existing products' environmental performance, enabling the company to tap new market segments
Social Cost Savings	<ul style="list-style-type: none"> Initiatives to increase employee engagement, which in turn might lead to decreased voluntary turnover rates Improved health and safety measures leading to lower lost-time injury frequency rates (LTIFR) Policies on limiting working hours in the supply chain, which in turn can lead to lower claim rates following higher production quality
Social Revenue Generation	<ul style="list-style-type: none"> Development of new products with social benefits, for example, products specifically designed for improving life in emerging markets

Source: RobecoSAM. Table is provided for illustrative purpose.

MEASURING IMPACT IN THE LISTED SPACE: RobecoSAM E&S SCORES

E&S scores indicate which firms are impact leaders in their respective industries.

RobecoSAM conducts a global annual survey of more than 2,000 publicly listed firms called the Corporate Sustainability Assessment (CSA).⁴ Using CSA survey data, it derives scores covering environmental and social dimensions, which are combined into a single E&S score. The relative emphasis of environmental and social dimensions varies by industry, so E&S scores indicate which firms are impact leaders in their respective industries. Through the CSA, RobecoSAM is looking for evidence that a company is aware of sustainability issues (including E&S dimensions), has a strategy for dealing with them, and is making progress on executing its strategy. Exhibit 2 provides an example, in this case of the pharmaceutical industry, of the type of information gathered in the CSA.

Exhibit 2: Sample CSA Question for Pharmaceutical Firms

Question	Please indicate your company's approaches to improve accessibility of drugs in both developing and developed countries. Please provide supporting documents.
Question Points	0-100
Question Weight Within Criterion	50%
Criterion	Strategy to improve access to drugs or products
Dimension	Social
RobecoSAM Rationale	Underprivileged patients are often unable to buy medicine to treat or cure their diseases due to financial constraints. This is often the case in developing countries, and it is now becoming a growing concern in developed countries. As a serious social challenge that requires attention from healthcare providers, some pharmaceutical companies are tackling this issue by implementing programs to provide these patients with improved access to medicine. Such initiatives help to improve the company's credibility, build corporate and product brands, and increase market penetration of their products and services.

Source: RobecoSAM. Table is provided for illustrative purpose.

⁴ The RobecoSAM CSA methodology includes over 100 industry-specific questions, and the relative weight of each dimension (environmental, social, and economic) is specific for every industry. Responses to individual questions are aggregated into dimension scores. E&S scores incorporate environmental and social dimensional scores.

Exhibit 2: Sample CSA Question for Pharmaceutical Firms (cont.)	
Possible Answers	Number of Points Awarded
A) List of Potential Approaches (Company Can Check all That Apply)	0-100 (depending on which approaches have been selected)
B) Not Applicable	A question that has been marked "Not Applicable" will not be scored and the weight of the question will be equally redistributed across the other questions within the same criterion, only if the analyst agrees that the question does not apply to the company's business model. This option is only granted in exceptional cases.
C) Not Known	0

Source: RobecoSAM. Table is provided for illustrative purpose.

ENVIRONMENTAL & SOCIALLY RESPONSIBLE INDICES

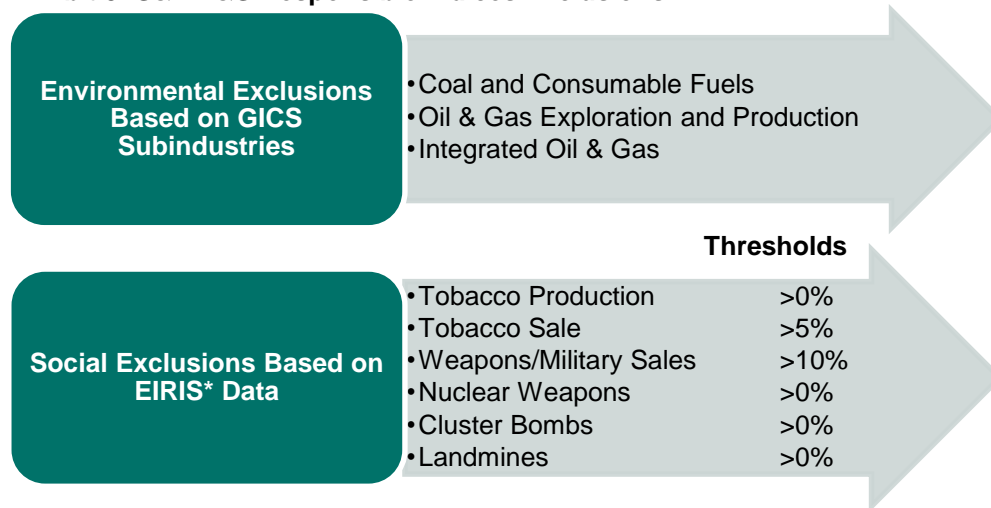
The S&P Environmental & Socially (E&S) Responsible Indices address impact investing needs by providing appropriate benchmarks and a foundation for passive exposure. The S&P E&S Responsible Indices include:

- S&P 500® Environmental & Socially Responsible Index;
- S&P 500 Environmental & Socially Responsible Exclusion Index;
- S&P International Environmental & Socially Responsible Index; and
- S&P International Environmental & Socially Responsible Exclusion Index.

The exclusion indices serve to benchmark socially responsible mandates seeking to minimize negative E&S impacts by excluding fossil fuel extracting industries, as well as companies engaged in the production and sale of tobacco, cluster bombs, landmines, nuclear devices, and other military armaments (see Exhibit 3).⁵ The S&P E&S Responsible Indices provide the same exclusions, but they also seek to measure companies with strong E&S profiles, so these indices are appropriate benchmarks for impact investing mandates. Specific industrial exclusions are shown in Exhibit 3.

The S&P E&S Responsible Indices also seek to measure companies with strong E&S profiles, so these indices are appropriate benchmarks for impact investing mandates.

Exhibit 3: S&P E&S Responsible Indices Exclusions



Source: S&P Dow Jones Indices LLC. Chart is provided for illustrative purposes. EIRIS is a global leader in environmental, social, and governance (ESG) research. More information can be found at <http://www.eiris.org/>.

⁵ For more information, please refer to the S&P E&S Responsible Indices methodology at www.spdji.com.

Once ineligible companies have been excluded, the remaining eligible companies are assigned E&S scores provided by RobecoSAM.⁶ The companies with the highest ranking E&S scores in each sector are included in the S&P E&S Responsible Indices, with a target coverage of 75% of the float-adjusted market capitalization of the underlying index from each GICS[®] sector. The indices are designed to track securities of E&S leaders while maintaining an overall risk/return profile similar to their respective parent indices. The S&P 500 Environmental & Socially Responsible Index uses the S&P 500 as its universe, while the S&P International Environmental & Socially Responsible Index uses the S&P Developed BMI Ex-U.S. & Korea LargeMidCap, a subset of the S&P Global BMI. In the exclusion indices, all companies in the eligible universe (after eliminating those in the heavy fossil fuel, tobacco, and military industries) are included as index constituents, regardless of their E&S scores or rankings. The S&P E&S Responsible Indices and the S&P E&S Responsible Exclusion Indices are weighted by float-adjusted market capitalization.

While the S&P E&S Responsible Indices offer enhanced exposure to environmental and social dimensions, the respective exclusion indices maintain scores close to those of their respective benchmark indices.

The E&S scores for the S&P E&S Responsible Indices are meaningfully higher than those of their respective benchmarks. The average E&S scores for the S&P 500 Environmental & Socially Responsible Index and the S&P 500 are 55.5 and 48.6, respectively. Similarly, the average E&S scores for the S&P International Environmental & Socially Responsible Index and the S&P Developed BMI Ex-U.S. & Korea LargeMidCap are 67.1 and 53.1, respectively. The range and standard deviations were also notably lower for the S&P E&S Responsible Indices, signifying that there is less variability than in the respective benchmarks (see Exhibit 4).

Also worth noting is that while the S&P E&S Responsible Indices offer enhanced exposure to environmental and social dimensions, the respective exclusion indices maintain scores very close to their benchmark indices. While the exclusion indices include all companies that meet the eligibility criteria, the S&P E&S Responsible Indices are able to have an overall better sustainability profile by eliminating 25% of the poorest E&S scorers within each sector.

Exhibit 4: Sustainability Score Comparisons

E&S Score	S&P 500	S&P 500 E&S Responsible Index	S&P 500 E&S Responsible Exclusion Index	S&P Developed BMI Ex-U.S. & Korea LargeMidCap	S&P International E&S Responsible Index	S&P International E&S Responsible Exclusion Index
Average	48.58	55.49	48.54	53.19	67.05	53.10
Median	48.63	53.68	47.98	55.03	66.26	54.56
Range	75.14	47.98	73.91	92.73	55.56	92.47
Standard Deviation	14.07	11.04	14.01	20.44	11.50	20.43
Weighted Average	50.86	56.35	50.17	58.49	66.12	58.56

Source: RobecoSAM CSA and S&P Dow Jones Indices LLC. Data for the RobecoSAM CSA as of December 2014. Data for S&P Dow Jones Indices as of June 30, 2015. Due to additions and deletions in benchmark indices after December 2014, companies that were not assigned E&S scores were excluded from calculations. Table is provided for illustrative purposes.

In addition to using E&S scores to measure the relative sustainability of these indices, carbon emission data may be used as an effective metric as well. The constituents of the S&P 500 Environmental & Socially Responsible Index reflect almost 50% less carbon emissions than those of the S&P 500. Furthermore, the S&P 500 Environmental & Socially Responsible Index reduces the weighted average carbon footprint of the S&P 500 by 3.4% (see Exhibit 5).

⁶ For more information about RobecoSAM and its scoring, please visit www.robecosam.com.

Exhibit 5: Sustainability Score Comparisons		
Metrics	S&P 500	S&P 500 Environmental & Socially Responsible Index
Total Carbon Emissions	11.7 metric tons of CO2 equivalent	6.0 metric tons of CO2 equivalent
Weighted Average Carbon Footprint	244.6 tons of CO2 equivalent / Revenue USD 100M	236.3 tons of CO2 equivalent / Revenue USD 100M

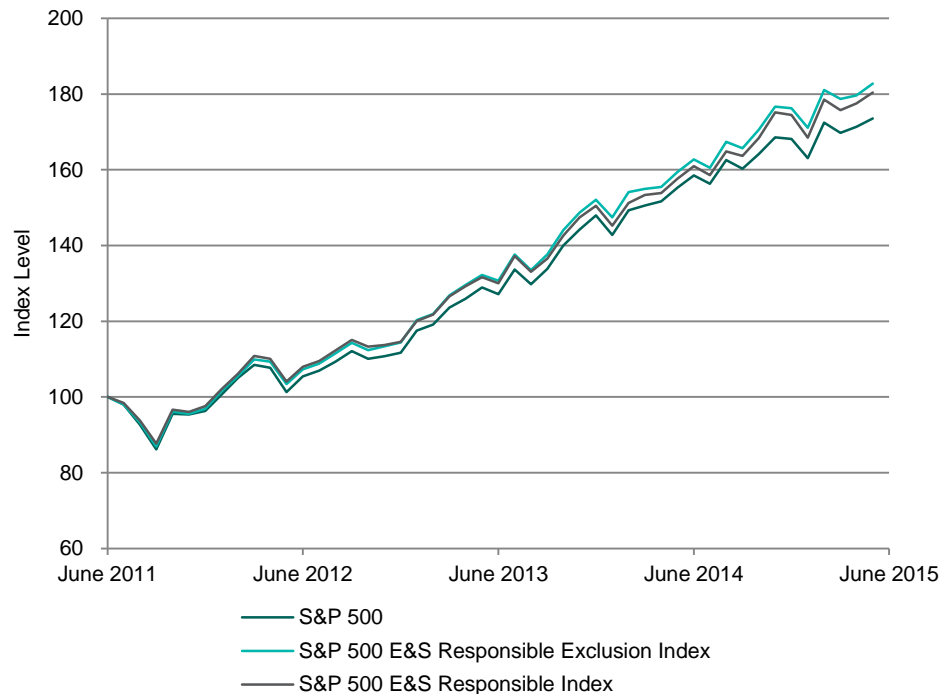
Source: S&P Dow Jones Indices LLC and Trucost. Carbon emissions and footprint data provided by Trucost as of year-end 2013. Index constituents and weights as of June 2015. Table is provided for illustrative purposes.

INTEGRATING SUSTAINABILITY WHILE LIMITING TRACKING ERROR

The S&P E&S Responsible Indices track their respective benchmarks closely (see Exhibits 6 and 7) and provide investors with similar risk/return characteristics. The one- and three-year returns for the S&P 500 Environmental & Socially Responsible Index were 9.83% and 17.87%, respectively, representing a respective 2.41% and 0.56% outperformance against the S&P 500. The one- and three-year returns for the S&P International Environmental & Socially Responsible Index were -3.76% and 11.93%, respectively, representing a respective 0.76% and 0.09% outperformance against the S&P Developed BMI Ex-U.S. & Korea LargeMidCap (see Exhibits 7 and 8). While marginally outperforming the returns of their benchmark indices, the S&P E&S Responsible Indices have also maintained similar, and sometimes even lower, risk profiles. Furthermore, the tracking error for both indices has remained within 1% for the one- and three-year periods, showing that the S&P E&S Responsible Indices closely track their respective benchmarks.

Exhibit 6: Historical Performance of the S&P E&S Responsible Indices Against Their Benchmarks

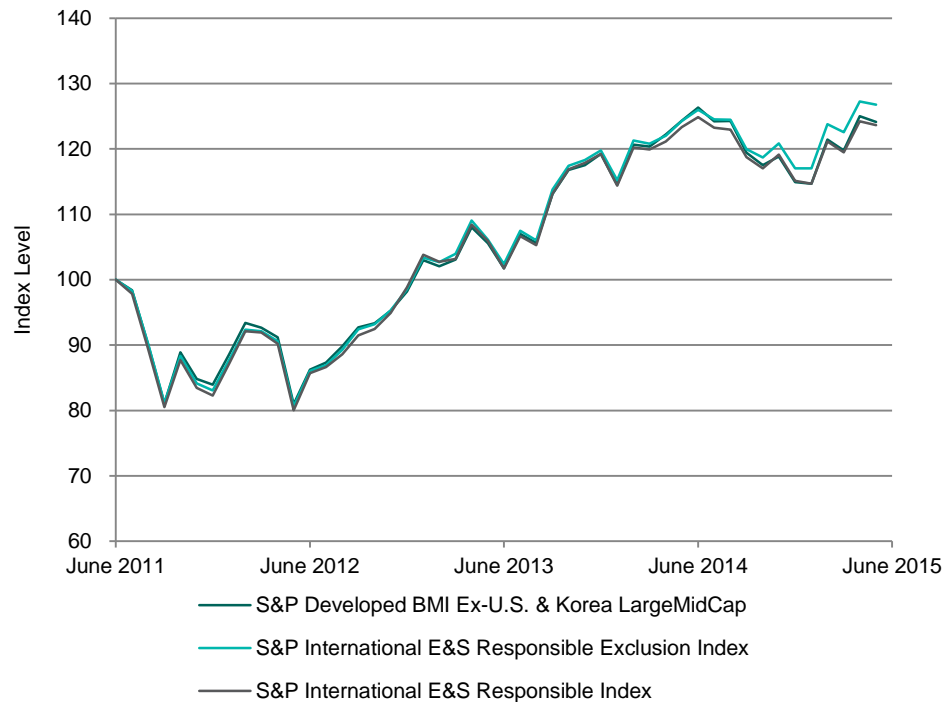
While marginally outperforming the returns of benchmark indices, the S&P E&S Responsible Indices have also maintained similar, and sometimes even lower, risk profiles.



Source: S&P Dow Jones Indices LLC. Data from June 30, 2011, to June 30, 2015. Past performance is no guarantee of future results. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosures at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Exhibit 7: Historical Performance of the S&P E&S Responsible Indices Against Their Benchmarks

Historically, E&S responsible mandates have been implemented through actively managed investment portfolios.



Source: S&P Dow Jones Indices LLC. Data from June 30, 2011, to June 30, 2015. Past performance is no guarantee of future results. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosures at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Exhibit 8: Performance Characteristics of the S&P E&S Responsible Indices Against Their Respective Benchmarks

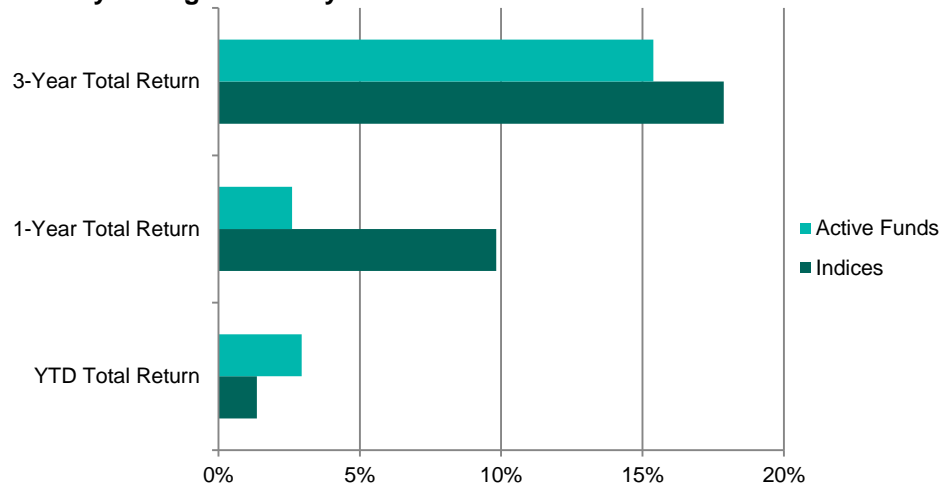
Year	S&P 500	S&P 500 E&S Responsible Exclusion Index (%)	S&P 500 E&S Responsible Index (%)	S&P Developed BMI Ex-U.S. & Korea LargeMidCap (%)	S&P International E&S Responsible Exclusion Index (%)	S&P International E&S Responsible Index (%)
	Annualized Return (%)					
1	7.42	10.34	9.83	-4.52	-2.05	-3.76
3	17.31	18.73	17.87	11.84	12.79	11.93
Year	Annualized Volatility (%)					
1	9.30	9.59	10.05	10.21	9.61	9.74
3	8.55	8.57	8.71	10.28	10.03	10.32
Year	Risk-Adjusted Return (%)					
1	0.80	1.08	0.98	-0.44	-0.21	-0.39
3	2.02	2.18	2.05	1.15	1.27	1.16
Year	Tracking Error (%)					
1	-	1.13	1.61	-	1.15	1.09
3	-	0.93	1.31	-	0.98	1.25

Source: S&P Dow Jones Indices LLC. Data based on total returns from June 30, 2012, to June 30, 2015. 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.

PASSIVE IMPACT REPRESENTATION

Historically, E&S responsible mandates have been implemented through actively managed investment portfolios. However, the S&P E&S Responsible Indices compare favorably with actively managed mutual funds in the Morningstar database. Exhibit 9 shows this comparison over one- and three-year periods. In addition, passive investment strategies may offer lower costs than active management (see Exhibit 10).

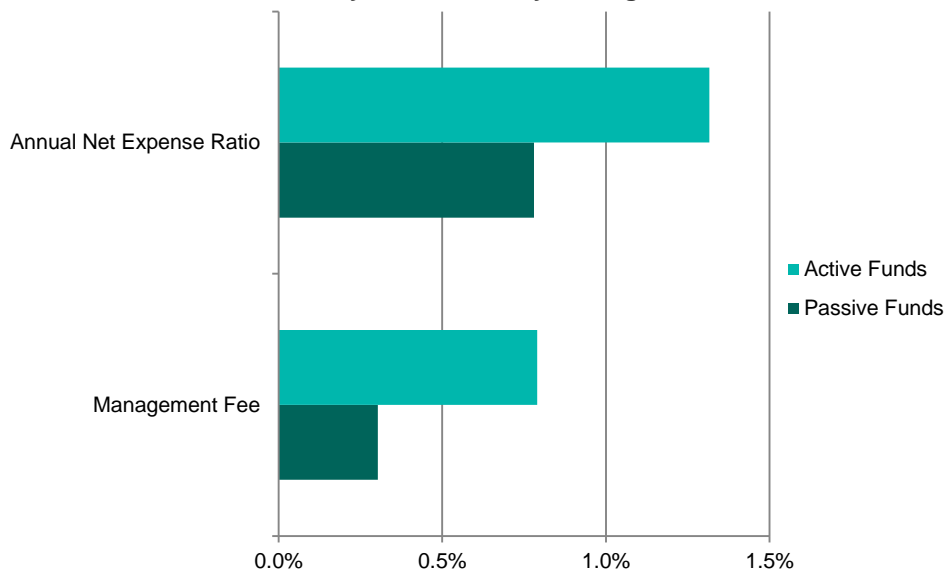
Exhibit 9: Performance Comparison of S&P E&S Responsible Indices Versus Actively Managed Socially Conscious Funds



Source: Morningstar and S&P Dow Jones Indices LLC. Total returns and risk calculations are annualized as of June 30, 2015. Performance for active funds based off an average of 299 actively managed funds, which were screened for “socially conscious” equities within the Morningstar database. The S&P 500 Environmental & Socially Responsible Index was used as a proxy for passively managed index funds. Past performance is no guarantee of future results. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosures at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

While overall the sector composition of the S&P E&S Responsible Indices is comparable with their respective benchmarks, there are some notable differences in weights at the industry level that translate into modest sectoral deviations.

Exhibit 10: Costs of Actively and Passively Managed Funds

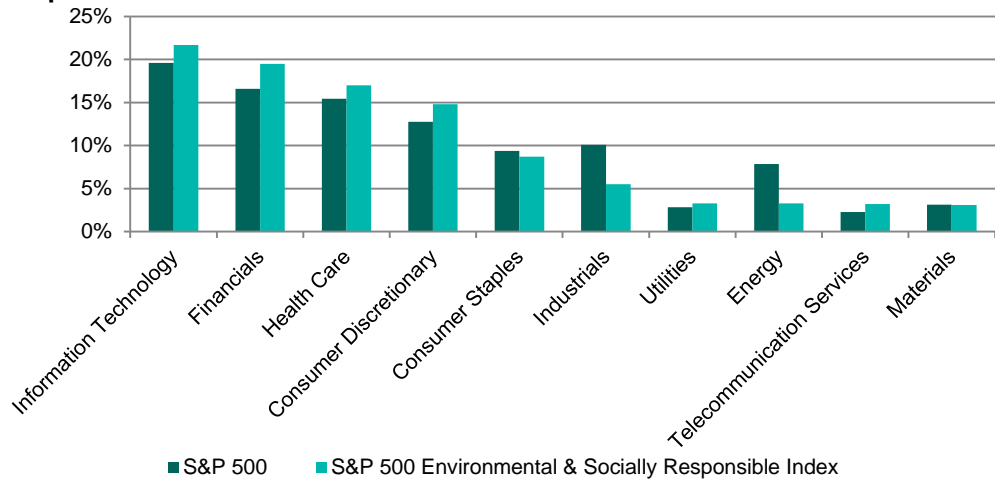


Source: Morningstar. Data as of June 30, 2015. Statistics based off an average of 33 passively managed funds and 299 actively managed funds, which were screened for “socially conscious” equities within the Morningstar database. Chart is provided for illustrative purposes.

SECTOR EXPOSURE RELATIVE TO BENCHMARKS

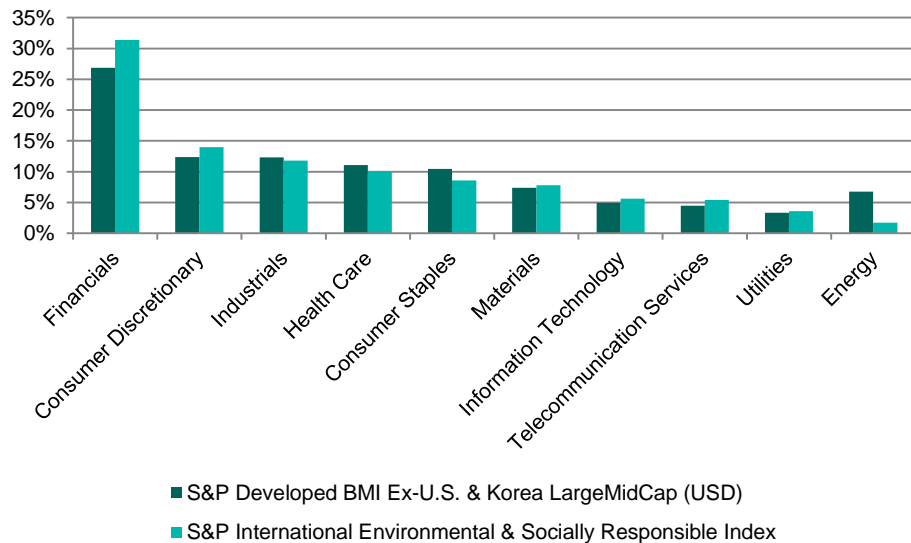
While overall the sector composition of the S&P E&S Responsible Indices is comparable with their respective benchmarks, there are some notable differences in weights at the industry level that translate into modest sectoral deviations. Due to the nature and goals of these indices, many companies falling under the energy sector are either excluded from the index or have relatively lower E&S scores, which leads to a drop in energy sector representation versus the benchmark. As of June 2015, there were only 12 energy companies (3.3%) in the S&P 500 Environmental & Socially Responsible Index, compared with 41 (7.9%) in the S&P 500 (see Exhibit 11). Similarly, there were only 18 energy companies (1.7%) in the S&P International Environmental & Socially Responsible Index, compared with 87 (6.8%) in the S&P Developed BMI Ex-U.S. & Korea LargeMidCap (see Exhibit 12). This was also the case, albeit to a lesser extent, for the industrials and consumer staples sectors. The biggest sector weight increase for these indices occurred in financials.

Exhibit 11: Sector Composition of the S&P 500 Environmental & Socially Responsible Index Versus its Benchmark



Source: S&P Dow Jones Indices LLC. Data as of June 30, 2015. Chart is provided for illustrative purposes.

Exhibit 12: Sector Composition of the S&P International Environmental & Socially Responsible Index Versus its Benchmark

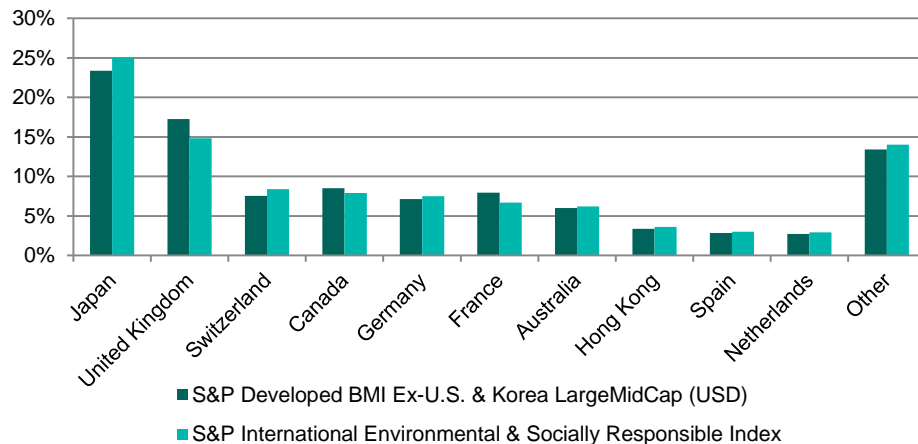


Source: S&P Dow Jones Indices LLC. Data as of June 30, 2015. Chart is provided for illustrative purposes.

In order to eliminate country and regional biases, the S&P International E&S Responsible Indices also have an additional weighting component applied at the country level.

Unlike the S&P 500 Environmental & Socially Responsible Index, which is entirely domestic, the S&P International Environmental & Socially Responsible Index is subject to shifts in country weights. In order to eliminate country and regional biases, the S&P International Environmental & Socially Responsible Index and the S&P International Environmental & Socially Responsible Exclusion Index also have an additional weighting component applied at the country level. On a quarterly basis, each country's weight is reset to match the relative country weights of the S&P Developed BMI Ex-U.S. & Korea LargeMidCap. This approach also aligns risk exposures with those of the benchmark index (see Exhibit 13).

Exhibit 13: Country Composition of S&P International Environmental & Socially Responsible Index Versus its Benchmark



Source: S&P Dow Jones Indices LLC. Data as of June 30, 2015. Chart is provided for illustrative purposes.

Through the partnership of S&P DJI and RobecoSAM, investors can now benchmark and passively access impact investments in the listed equities universe.

CONCLUSION

S&P Dow Jones Indices has expanded its partnership with RobecoSAM to offer the S&P Environmental & Socially Responsible Indices, which is a set of benchmarks that is designed to measure securities from the U.S. and international equity markets that meet environmental and sustainability criteria. As a result of this partnership, investors can now benchmark and passively access impact investments in the listed equities universe. The S&P E&S Responsible Indices seek to track companies within broad benchmarks that exhibit superior environmental and social characteristics relative to their industries. The S&P E&S Responsible Exclusion Indices seek to provide a benchmark for mandates seeking to minimize negative environmental and social impacts, while aiming to maintain an overall E&S responsible exposure similar to broad benchmarks.

Furthermore, passive implementation of listed impact mandates may offer compelling benefits through enhanced E&S exposure and limited tracking error relative to broad benchmarks. The main benefit of limiting tracking error is that impact investors in the listed space can align their values with their portfolios, potentially achieving market-like financial returns. Index funds also may offer lower expense ratios than many actively managed strategies.

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PERFORMANCE DISCLOSURES

The S&P 500 Environmentally & Socially Responsible Index, the S&P 500 Environmentally & Socially Responsible Exclusion Index, the S&P International Environmentally & Socially Responsible Index, and the S&P International Environmentally & Socially Responsible Exclusion Index were launched on May 11, 2015. All information presented prior to the launch date is back-tested. Back-tested performance is not actual performance, but is hypothetical. The back-test calculations are based on the same methodology that was in effect when the index was officially launched. Complete index methodology details are available at www.spdji.com. It is not possible to invest directly in an index.

S&P Dow Jones Indices defines various dates to assist our clients in providing transparency on their products. 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 at a fixed value for calculation purposes. The Launch Date designates the date upon which 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 datafeed 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.

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. 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 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.

The Index returns shown do not represent the results of actual trading of investable assets/securities. S&P Dow Jones Indices LLC 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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