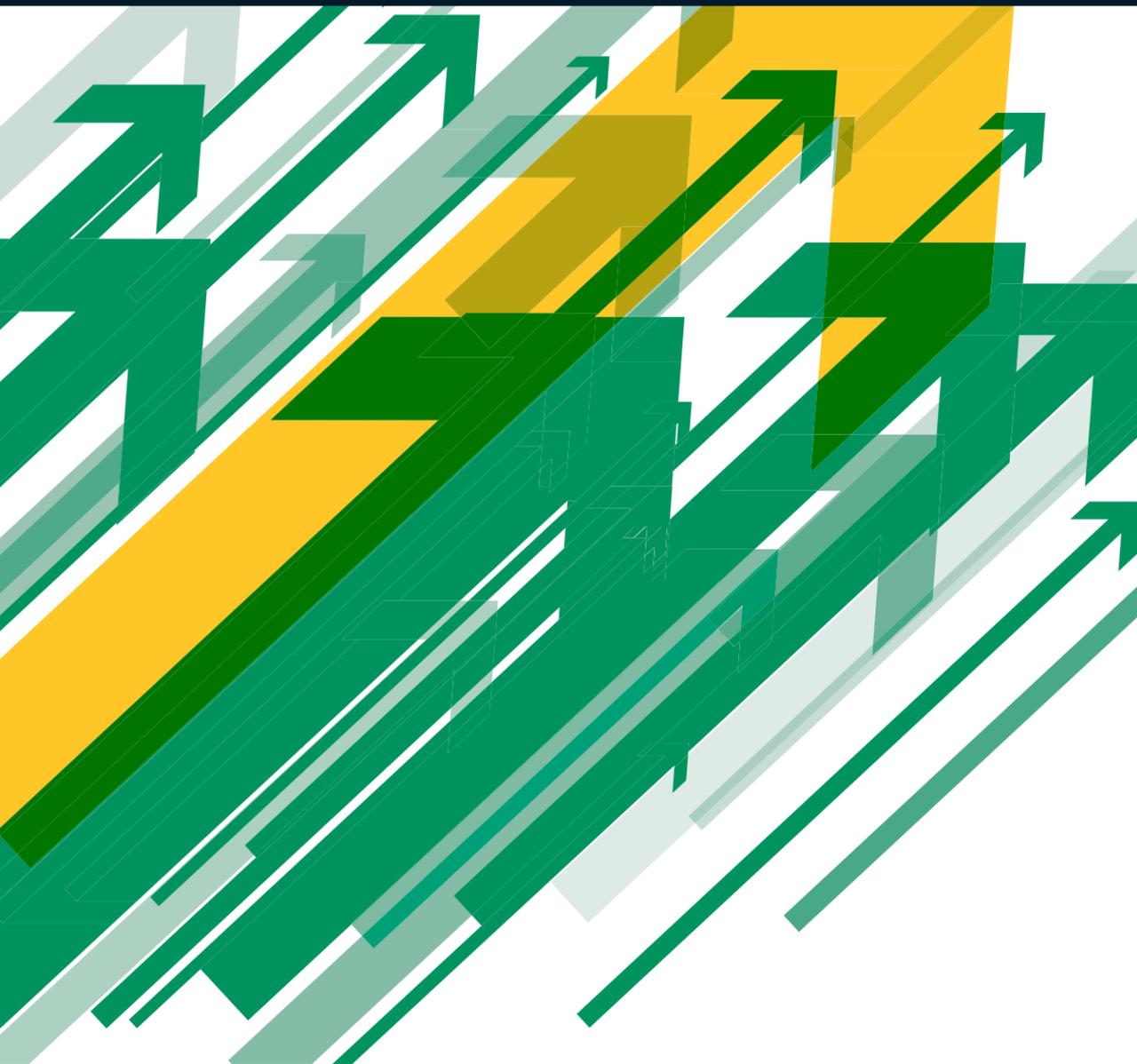




MSCI Low Carbon SRI Leaders Indexes

This product insight gives an overview of the **MSCI Low Carbon SRI Leaders Indexes**. These indexes combine and ESG strategy using elements from three different methodologies: the MSCI Global Low Carbon Leaders Indexes, the MSCI ESG Leaders Indexes and MSCI SRI Indexes.



Introduction

Sustainability is reshaping both the world we live in and the investment landscape. Companies are increasingly aware that their clients and their investors view sustainability as material to the bottom line. From tackling issues such as climate change to gender equality, and better corporate governance, a new era is emerging. Environmental, Social and Governance (ESG) considerations are galvanizing a complete rethink of all aspects of society.

Global warming and climate change present one of the biggest economic and social challenges of the 21st century. The misconception that climate change is only a long-term risk consideration is now more evident than ever. Companies are already facing impacts from transition risks such as growing carbon regulations or reduced fossil fuel demand. Climate risks may therefore pose an immediate as well as long-term threat to some investment portfolios.

Over the past few years, we have seen growing interest from institutional investors globally in adopting climate indexes. Indeed, many investors start addressing climate in their investment through a low carbon approach through which they aim to reduce their carbon exposure.

As ESG Investing continues to evolve, MSCI is focused on bringing transparency and clarity to the market, serving investors' needs for ESG standards. MSCI has been at the forefront of providing data, research, indexes and

other tools to help enable ESG integration across the entire investment process and is committed to further advancing solutions to facilitate and accelerate sustainable investing.¹

MSCI Low Carbon SRI Leaders Indexes are designed to represent the performance of companies that have lower carbon exposure than that of the broad market and have high ESG performance. The Indexes are free float-adjusted market capitalization weighted.

Performance of the MSCI Emerging Markets Low Carbon SRI Leaders Index



1. MSCI ESG Ratings and data produced by MSCI ESG Research LLC. MSCI ESG Indexes and Analytics utilize information from, but are not provided by, MSCI ESG Research LLC. MSCI Indexes and Analytics are products of MSCI Inc. MSCI Indexes are administered by MSCI Limited (UK).
2. The MSCI Europe Low Carbon SRI Leaders Index was launched on Feb 27, 2018. Data prior to the launch date is back-tested data (i.e. calculations of how the index might have performed over that time period had the index existed). There are frequently material differences between back-tested performance and actual results. Past performance – whether actual or back-tested – is no indication or guarantee of future performance.

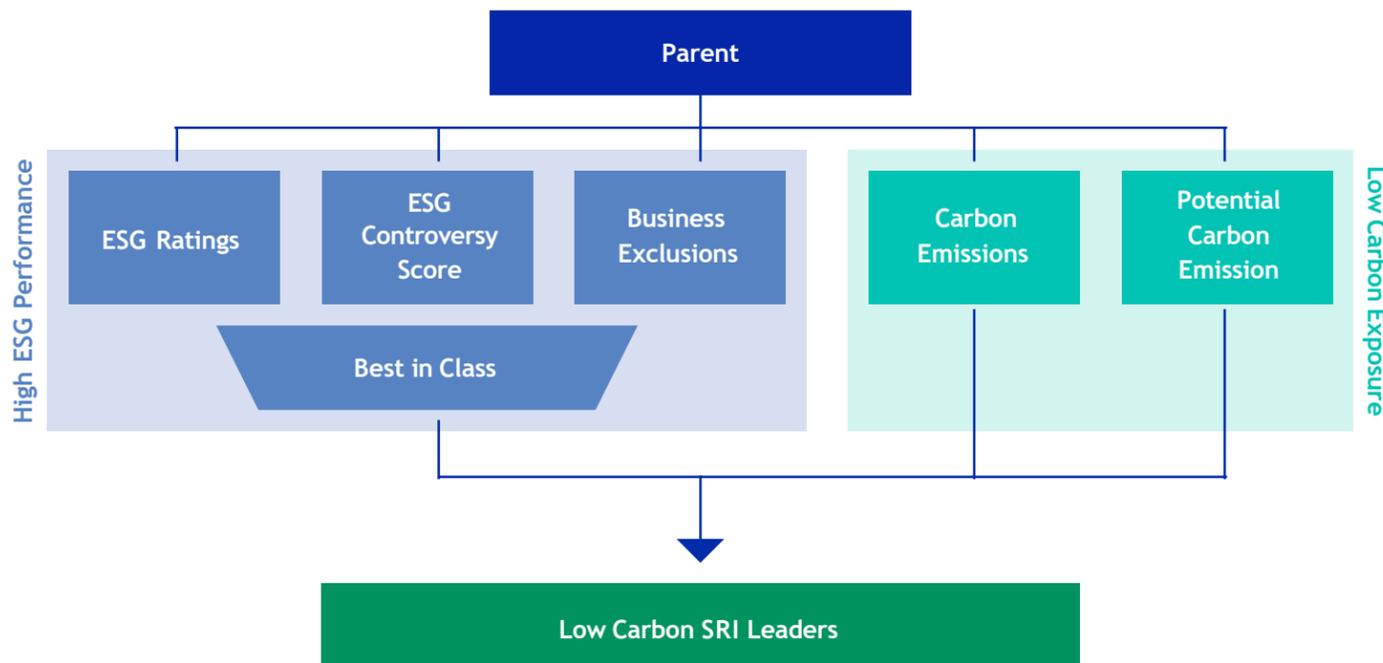
Index methodology³ review

The MSCI Low Carbon SRI Leaders Indexes are based on the MSCI Global Low Carbon Leaders, the MSCI ESG Leaders Indexes and MSCI SRI Indexes methodology.

The MSCI Global Low Carbon Leaders and MSCI ESG Leaders Indexes methodology are applied independently on the parent index, and securities selected by certain rules of both the methodologies are eligible for inclusion in the index. The Indexes use the selection process of the MSCI ESG Leaders Indexes methodology that aims to include securities of companies with the highest ESG ratings representing 50% of the market capitalization in each sector

and region of the parent Index. Only those companies from the Parent Index that pass the business involvement criteria of the MSCI SRI Methodology are eligible for the Index.

The MSCI Global Low Carbon Leaders methodology excludes the worst 20% of companies based on carbon emissions intensity, with a maximum of 30% by weight from any sector. It also excludes the largest owners of reserves per dollar of market capitalization, representing 50% of the reserves in the parent index. The index uses customized version of MSCI Global Low Carbon Leaders Indexes Methodology where the optimization is not applied.



3. This brochure is only a summary of the MSCI Low Carbon SRI Leaders Indexes Methodology. For more detailed information please refer to the complete methodology at https://www.msci.com/eqb/methodology/meth_docs/MSCI_Low_Carbon_SRI_Leaders_Index_Methodology.pdf

Constructing the Indexes involves the following steps:

- › **Best in class ESG integration** with values-based screens (includes minimum ESG Rating and Controversy score)

Large, Mid & Small

› **Zero tolerance (any tie to):**

- Controversial weapons

› **Manufacturer/producer of:**

- Nuclear weapons
- Civilian Firearms
- Tobacco

› **≥ 5% of revenues from:**

- Alcohol
- Gambling
- Conventional weapons
- Adult entertainment
- GMO

› **≥ 15% of revenues from:**

- Nuclear power

› **Climate Screens**

- Extraction & Production
 - Thermal Coal mining and sale ≥ 0%
 - Conventional Oil & Gas extraction ≥ 0%
- Power Generation
 - Thermal Coal power generation ≥ 10%
 - Fossil Fuel and Nuclear Energy-based Power Generation ≥ 0%
 - Oil and Gas power generation ≥ 30%
- Fossil Fuel Reserves Ownership
 - Fossil Fuel Reserves Ownership and Extraction - Zero Tolerance

* Controversy score for UK is 1



- › Defining the **Low Carbon Exposure**

› **Carbon Emission**

- Carbon Emissions / Sales
- Top 20% by number excluded
- Max weight excluded per sector = 30%

› **Potential Carbon Emission**

- Potential Carbon Emissions / Market Cap
- Cumulative potential carbon emission reduced by 50%

- › Weighting the eligible constituents in proportion of their free-float adjusted market capitalization.

Available Indexes

- › MSCI World Low Carbon SRI Leaders
- › MSCI USA Low Carbon SRI Leaders
- › MSCI Europe Low Carbon SRI Leaders
- › MSCI Japan Low Carbon SRI Leaders
- › MSCI EM Low Carbon SRI Leaders
- › MSCI Asia ex Japan Low Carbon SRI Leaders
- › MSCI EMU Low Carbon SRI Leaders
- › MSCI China Low Carbon SRI Leaders
- › MSCI UK IMI Low Carbon SRI Leaders Select*

Index review

The MSCI Low Carbon SRI Leaders Indexes are reviewed on a quarterly basis to coincide with the regular Semi-Annual and Quarterly Index Reviews of the MSCI Global Investable Market Indexes. The changes are generally implemented as of the close of the last business day of February, May, August and November. The pro forma Index is in general announced nine business days before the effective date. In general, MSCI uses MSCI ESG Research data (including MSCI ESG Ratings, MSCI

ESG Controversies Scores and MSCI Business Involvement Screening Research) as of the end of the month preceding the Index Reviews for the rebalancing of the MSCI ESG Leaders Indexes. For some securities, such data may not be published by MSCI ESG Research by the end of the month preceding the Index Review. For such securities, MSCI will use ESG data published after the end of month, when available, for the rebalancing of the MSCI ESG Leaders Indexes.

Table 1 - Key metrics⁴

	MSCI World Index	MSCI World Low Carbon SRI Leaders Index	MSCI Emerging Markets Index	MSCI Emerging Markets Low Carbon SRI Leaders Index
Total Return* (%)	8.6	9.0	3.4	4.2
Total Risk (%)	14.1	14.0	16.3	16.4
Return/Risk	0.61	0.64	0.21	0.25
Sharpe Ratio	0.56	0.60	0.17	0.21
Active Return (%)	0.0	0.4	-5.2	-4.4
Tracking Error (%)	0.0	1.6	10.4	11.5
Information Ratio	nan	0.29	-0.5	-0.39
Historical Beta	1	0.99	0.89	0.85
No of Stocks***	1622	634	1055	320
Turnover** (%)	1.7	13.6	5.6	18.6
Price To Book***	2.4	2.7	1.6	2.0
Price to Earnings***	19.9	19.6	14.2	16.2
Dividend Yield*** (%)	2.3	2.3	2.6	2.3

Period: Jul 31, 2013 to Jun 30, 2022

* Gross returns annualized in USD

** Annualized one-way index turnover over index reviews

*** Monthly averages

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4. This brochure contains analysis of historical data, which may include hypothetical, backtested or simulated performance results. There are frequently material differences between backtested or simulated performance results and actual results subsequently achieved by any investment strategy.

Table 2 - ESG Metrics > Integration, values and norms

	MSCI World Index	MSCI World Low Carbon SRI Leaders Index	MSCI Emerging Markets Index	MSCI Emerging Markets Low Carbon SRI Leaders Index
Integration				
ESG score	6.7	7.6	5.3	6.7
ESG leaders (AAA-AA) (%)	37.7	60.5	17.8	34.7
ESG laggards (B-CCC) (%)	2.6	0.0	15.6	0.0
ESG trend positive (%)	34.4	23.3	30.0	39.8
ESG trend negative (%)	3.1	2.4	8.7	1.7
Index ESG rating	AA	AAA	BBB	AAA
Environmental pillar score	6.1	6.9	5.1	5.9
Social pillar score	5.2	5.6	5.0	5.5
Governance pillar score	5.7	5.9	4.3	4.9
Key governance metrics				
Board independence (wtd avg %)	79.8	80.2	60.3	65.1
Female directors (wtd avg %)	33.5	34.3	14.5	15.7
Deviation from one share one vote (%)	21.5	22	40.3	33.3
Values and norms				
Tobacco involvement (%)	1.0	0.0	0.4	0.0
Civilian firearms producers (%)	0.1	0.0	0.0	0.0
Ties to controversial weapons (%)	0.6	0.0	0.3	0.0
Global compact compliance violation (%)	1.1	0.0	2.0	0.0
Red flag controversies (%)	1.6	0.0	2.0	0.0
Orange flag controversies (%)	32.8	23.1	15.6	12.3

Table 2 - ESG Metrics > Climate Change

	MSCI World Index	MSCI World Low Carbon SRI Leaders Index	MSCI Emerging Markets Index	MSCI Emerging Markets Low Carbon SRI Leaders Index
Carbon Footprint				
Carbon Emissions (t CO2e/\$M Invested)	76	13	269	30
Carbon Intensity (t CO2e/\$M Sales)	155	33	406	64
Wtd Avg Carbon Intensity (t CO2e/\$M Sales)	151	34	327	81
Low Carbon Transition Risks				
Low Carbon Transition Score	6.1	6.5	6.0	6.4
Solutions (%)	8.4	16.3	8.7	14.8
Product & Operational Transition (%)	15.3	1.2	20.3	3.2
Asset Stranding (%)	0.5	0.0	1.5	0.0
Exposure to Asset Stranding Risks				
Potential Carbon Emissions (t CO2e/\$M Invested)	1350	0	4674	0
Fossil Fuel Reserves (%)	6.4	0.0	7.1	0.0
Thermal Coal Mining (%)	0.8	0.0	2.6	0.0
Thermal Coal-based Power Generation (%)	2.8	0.0	2.5	0.0
Unconventional Oil & Gas Extraction (%)	3.9	0.0	2.2	0.0
Exposure to Clean Technology Solutions				
Clean Technologies Solutions (>= 20% Revenue)	9.7	17.3	5.5	6.9
Clean Technologies Solutions Revenue (Wtd Avg %)	5.2	7.9	4.9	6.6
Green Share/Brown Share Ratio (Wtd Avg % Revenue)	2.0	69125.9	3.0	inf
Other Climate Metrics				
Exposure to Carbon-related Assets (%)	7.9	0.5	6.8	1.4
Climate-related Controversies (% Score <= 4)	0.2	0.2	0.0	0.0
Low Carbon Transition Management Score (% Top Quartile)	70.0	79.3	31.3	41.8

Potential applications

Indexes are often used as performance benchmarks for active managers. Investors may also use policy benchmarks in their strategic asset allocation to define eligible markets and the universe of eligible securities for their portfolios. At the same time, they may use them to define active or passive allocations when implementing their asset allocation strategies. We have observed an increasing number of investors incorporating climate indexes and ESG considerations into their investment process through index replication.

Conclusion

Addressing corporate ESG considerations and the risks of not transitioning to low-carbon portfolio exposure has become increasingly important for many global investors. At the same time, an increasing number of European regulators are requiring institutional investors to consider ESG and carbon risks that may be financially relevant to their investment processes.

Investors who continue to ignore these factors could find themselves unprepared for the possible resulting changes.

The demand for tools that can help investment institutions manage inherent risks associated with ESG and climate considerations through index adoption has never been greater in their pursuit of long-term, sustainable and inclusive investment performance.

The MSCI Low Carbon SRI Leaders Indexes can be used by institutional investors seeking exposure to companies with a strong sustainability profile.

The indexes integrate ESG considerations and are intended to help identify potential risks associated with the transition to a low carbon economy.



About MSCI Inc.

MSCI is a leading provider of critical decision support tools and services for the global investment community. With over 45 years of expertise in research, data and technology, we power better investment decisions by enabling clients to understand and analyze key drivers of risk and return and confidently build more effective portfolios. We create industry-leading research-enhanced solutions that clients use to gain insight into and improve transparency across the investment process.

To learn more, please visit www.msci.com/esg-investing.

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