

MSCI USA ESG Select Index Methodology

June 2023

Contents

1	Introduction	3
2	Constructing the MSCI USA ESG Select Index	4
2.1	Defining the Parent Index	4
2.2	Defining the Exclusion Criteria	4
2.3	Defining the Optimization Constraints	5
2.4	Determining the Optimized Portfolio	6
3	Maintaining the MSCI USA ESG Select Index	7
3.1	Quarterly Index Reviews	7
3.2	Ongoing Event-Related Maintenance	7
4	MSCI ESG Research	9
4.1	MSCI ESG Ratings	9
4.2	MSCI ESG Controversies	9
4.3	MSCI ESG Business Involvement Screening Research	9
4.4	MSCI Climate Change Metrics	10
	Appendix I: Handling Infeasible Optimizations	11
	Appendix II: Methodology Transition	12
	Appendix III: Controversial Business Involvement Criteria	14
	Appendix IV: Methodology for MSCI USA Extended ESG Select Index	17
	Appendix V: Changes to this Document	18

1 Introduction

The MSCI USA ESG Select Index (the ‘Index’) is designed to maximize exposure to positive environmental, social and governance (ESG) factors while exhibiting risk and return characteristics similar to those of the MSCI USA Index. The Index is constructed by selecting constituents of the MSCI USA Index through an optimization process that aims to maximize exposure to ESG factors for a target tracking error budget under certain constraints.

The Index is sector-diversified and targets companies with high ESG ratings in each sector. Companies involved in a defined set of controversial businesses are not eligible for inclusion into the Index¹.

¹ The Index is governed by a set of methodology and policy documents (“Methodology Set”), including the present index methodology document. The Methodology Set for the Index can be accessed from MSCI’s webpage <https://www.msci.com/index-methodology> in the section ‘Search Methodology by Index Name or Index Code’.

The Methodology Set includes a document ‘ESG Factors in Methodology’ that contains the list of environmental, social, and governance factors considered, and how they are applied in the methodology (e.g., selection, weighting or exclusion).

2 Constructing the MSCI USA ESG Select Index

Constructing the Index involves the following steps:

- Defining the underlying MSCI Parent Index ('Parent Index');
- Defining the exclusion criteria;
- Defining the optimization constraints; and
- Determining the optimized portfolio

2.1 Defining the Parent Index

The Parent Index for the Index is the MSCI USA Index.

2.2 Defining the Exclusion Criteria

The Index uses company ratings and research provided by MSCI ESG Research² to determine eligibility for index inclusion.

2.2.1 Controversial Business Involvement Criteria

The Index uses MSCI ESG Business Involvement Screening Research and MSCI Climate Change Metrics to identify companies that are involved in the following business activities. Companies that meet the business involvement criteria are excluded from the Index. Please refer to Appendix 4 for details on these criteria.

- Controversial Weapons
- Civilian Firearms
- Nuclear Weapons
- Tobacco
- Alcohol
- Conventional Weapons
- Gambling
- Nuclear Power
- Fossil Fuel Extraction

² See section 4 for further information regarding ESG and climate data used in the Index that MSCI Limited sources from MSCI ESG Research LLC, a separate subsidiary of MSCI Inc. MSCI ESG Research is solely responsible for the creation, determination and management of such data. MSCI Limited is the benchmark administrator for the MSCI indexes.

- Thermal Coal Power

2.2.2 ESG Controversies Score Eligibility

The Index uses MSCI ESG Controversies Scores to identify companies that are involved in very serious controversies involving the environmental, social, or governance impact of their operations and/or products and services. Existing constituents of the Index are required to have an MSCI ESG Controversies Score above 0 to remain in the index, while companies that are currently not constituents of the Index are required to have an MSCI ESG Controversies Score above 2 to be eligible for inclusion.

2.3 Defining the Optimization Constraints

Constituents are selected to maximize exposure to industry adjusted ESG Scores, subject to maintaining risk and return characteristics similar to the MSCI USA Index. ESG Scores are normalized and factored into the optimization process. Optimization is a quantitative process that considers the market capitalization weights from the MSCI USA Index, ESG Scores and additional optimization constraints to select and weight the constituents in the Index.

Normalization of the ESG Scores allows the optimization to assess each score in the context of the overall distribution of the ESG Scores.

At each Quarterly Index Review, the following optimization constraints are used to ensure replicability and investability:

- The predicted tracking error is restricted to 1.8%
- The maximum weight of an index constituent will be 5%;
- The minimum weight of an index constituent will be 0.1%;
- The number of index constituents is constrained to a maximum of 350;
- The sector weights of the MSCI USA ESG Select Index will not deviate by more than +/- 3% from the sector weights of the MSCI USA Index;
- The one way turnover of the MSCI USA ESG Select Index is constrained to a maximum of 10% at Semi-Annual Index Reviews and 5% at Quarterly Index Reviews;
- One way transaction cost is set to 0.5% which aims to achieve a balance between turnover and ESG Scores; and
- An AS/CF (Asset Selection/Common Factor) Risk Aversion Ratio of 10 is applied.

Please refer to the Appendix 2 for the description of the handling of infeasible optimizations.

2.4 Determining the Optimized Portfolio

The Index is constructed using the most recent release of the Barra Open Optimizer in combination with the relevant Barra Equity Model. The optimization uses the MSCI USA Index after application of the exclusion criteria as described in section 2.2 above, as the universe of eligible securities and the specified optimization objective and constraints to determine the constituents of the Index.

3 Maintaining the MSCI USA ESG Select Index

3.1 Quarterly Index Reviews

The Index is rebalanced on a quarterly basis to coincide with the regular Index Reviews of the MSCI Global Investable Market Indexes. The changes are implemented at the end of February, May, August and November. The pro forma indexes are in general announced nine business days before the effective date.

In general, MSCI uses MSCI ESG Research data³ (including MSCI ESG Ratings, MSCI ESG Controversies Scores, MSCI ESG Business Involvement Screening Research and MSCI Climate Change Metrics) as of the end of the month preceding the Index Reviews for the rebalancing of the Index. 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 MSCI USA ESG Select Index.

At each Index Review, the optimization process outlined in Section 2 is implemented. Companies can only be added to the Index at regular Index Reviews.

3.2 Ongoing Event-Related Maintenance

The general treatment of corporate events in the Index aims to minimize turnover outside of Index Reviews. The methodology aims to appropriately represent an investor's participation in an event based on relevant deal terms and pre-event weighting of the index constituents that are involved. Further, changes in index market capitalization that occur as a result of corporate event implementation will be offset by a corresponding change in the Variable Weighting Factor (VWF) of the constituent.

Additionally, if the frequency of Index Reviews in the Parent Index is greater than the frequency of Index Reviews in the MSCI USA ESG Select Index, the changes made to the Parent Index during intermediate Index Reviews will be neutralized in the Index.

The following section briefly describes the treatment of common corporate events within the Index.

No new securities will be added (except where noted below) to the Index between Index Reviews. Parent Index deletions will be reflected simultaneously.

There are no deletions from the Index between Index Reviews on account of a security becoming ineligible because of decrease in MSCI ESG Controversies Score and/or change in business involvement.

³ See section 4 for details of data sourced from MSCI ESG Research used in the Indexes.

EVENT TYPE	EVENT DETAILS
New additions to the Parent Index	A new security added to the parent index (such as IPO and other early inclusions) will not be added to the index.
Spin-Offs	All securities created as a result of the spin-off of an existing Index constituent will be added to the Index at the time of event implementation. Reevaluation for continued inclusion in the Index will occur at the subsequent Index Review.
Merger/Acquisition	<p>For Mergers and Acquisitions, the acquirer's post event weight will account for the proportionate amount of shares involved in deal consideration, while cash proceeds will be invested across the Index.</p> <p>If an existing Index constituent is acquired by a non-Index constituent, the existing constituent will be deleted from the Index and the acquiring non-constituent will not be added to the Index.</p>
Changes in Security Characteristics	A security will continue to be an Index constituent if there are changes in characteristics (country, sector, size segment, etc.) Reevaluation for continued inclusion in the Index will occur at the subsequent Index Review.

Further detail and illustration regarding specific treatment of corporate events relevant to this Index can be found in the MSCI Corporate Events Methodology book under the sections detailing the treatment of events in Capped Weighted and Non-Market Capitalization Weighted indexes.

The MSCI Corporate Events methodology book is available at:
<https://www.msci.com/index/methodology/latest/CE>

4 MSCI ESG Research

The Index is a product of MSCI Inc. that utilizes information such as company ratings and research produced and provided by MSCI ESG Research LLC (MSCI ESG Research), a subsidiary of MSCI Inc. In particular, the Index uses the following MSCI ESG Research products: MSCI ESG Ratings, MSCI ESG Controversies, MSCI ESG Business Involvement Screening Research and MSCI Climate Change Metrics. MSCI Indexes are administered by MSCI Limited.

4.1 MSCI ESG Ratings

MSCI ESG Ratings aim to measure entities' management of environmental, social and governance risks and opportunities. MSCI ESG Ratings use a weighted average key issue calculation that is normalized by industry to arrive at an industry-adjusted ESG score (0-10), which is then translated to a seven-point scale from 'AAA' to 'CCC', indicating how an entity manages relevant key issues relative to industry peers.

The MSCI ESG Ratings methodology can be found at: <https://www.msci.com/esg-and-climate-methodologies>

4.2 MSCI ESG Controversies

MSCI ESG Controversies provide assessments of controversies concerning the potential negative environmental, social, and/or governance impact of company operations, products and services. The evaluation framework used in MSCI ESG Controversies is designed to be consistent with international norms represented by the UN Declaration of Human Rights, the ILO Declaration on Fundamental Principles and Rights at Work, and the UN Global Compact. MSCI ESG Controversies Score falls on a 0-10 scale, with "0" being the most severe controversy.

The MSCI ESG Controversies methodology can be found at: <https://www.msci.com/esg-and-climate-methodologies>

4.3 MSCI ESG Business Involvement Screening Research

MSCI ESG Business Involvement Screening Research (BISR) aims to enable institutional investors to manage environmental, social and governance (ESG) standards and restrictions reliably and efficiently.

For more details on MSCI ESG Business Involvement Screening Research, please refer to http://www.msci.com/resources/factsheets/MSCI_ESG_BISR.pdf

4.4 MSCI Climate Change Metrics

MSCI Climate Change Metrics provide climate data & tools to support institutional investors seeking to integrate climate risk & opportunities into their investment strategy and processes. This includes investors seeking to achieve a range of objectives, including measuring and reporting on climate risk exposure, implementing low carbon and fossil fuel-free strategies, alignment with temperature pathways and factoring climate change research into their risk management processes, in particular through climate scenario analysis for both transition and physical risks.

The dataset spans across the four dimensions of a climate strategy: transition risks, green opportunities, physical risks and 1.5° alignment.

For more details on MSCI Climate Change Metrics, please refer to <https://www.msci.com/climate-solutions>

Appendix I: Handling Infeasible Optimizations

During the Quarterly Index Review, in the event that there is no optimal solution that satisfies all the optimization constraints defined in Section 2.3, the tracking error will be relaxed in steps of 0.2% until an optimal solution is found.

Appendix II: Methodology Transition

May 2012 – May 2013

The MSCI USA ESG Select Index transitioned to the methodology described in the above document starting from the May 2012 Index Review. As part of the enhancements to the MSCI USA ESG Select Index Methodology, the annual turnover budget is reduced from 50% to 30% (10% at Semi-Annual Index Reviews and 5% at Quarterly Index Reviews). The lower annual turnover budget of 30% will be applied starting from the May 2012 Index Review.

June 2016

Effective at the May 2016 Index Review, the MSCI USA ESG Select Index reflected enhancements to the MSCI ESG Controversies (formerly known as MSCI Impact Monitor). The details of the changes are as given below.

The changes to MSCI ESG Controversies included adjusting the scoring model to align the scores with individual controversy case levels, including the introduction of an Orange flag, and the removal of specific controversial business involvement (CBI) criteria from the model to refocus the ESG Controversies scores on event-driven controversies.

MSCI implemented the following changes to the MSCI USA ESG Select Index methodology effective June 1, 2016 to maintain consistency with the existing index construction objectives:

1. As per the old MSCI ESG Impact Monitor methodology, securities which had an Impact Monitor score of 0 and 1 had a Red controversy flag. Under the new methodology, only securities with an ESG controversies score of 0 have a Red controversy flag. For indexes where constituents were ineligible to be included in the index if their Impact Monitor score was 0 or 1 (current Red controversy flag), the exclusion criteria was changed to ESG Controversies score = 0 in order to continue to only exclude securities with Red controversy flag in the MSCI USA ESG Select Index.
2. Additional exclusion rules based on the controversial business involvement criteria related to alcohol, gambling, nuclear power, conventional weapons and controversial weapons that were incorporated in the old MSCI Impact Monitor scores were introduced as part of the methodology of the MSCI USA ESG Select Index. Since, the rule for exclusion of securities with tobacco involvement was already more stringent in MSCI USA ESG Select methodology, it was not included. The details of the exclusion rules are mentioned in Appendix 3.

November 2017

In order to meet its objective, the MSCI USA ESG Select Index construction, since inception, made use of the Barra Global Equity Model (GEM2L) within the optimization setup. However, starting from the November 2017 Semi-Annual Index Review, the index construction used an optimization setup that used the Barra Global Equity Model for Long-Term Investors (GEMTL). The change of optimization setup was completed without any change in the prevailing index methodology.

December 2021

Effective from the November 2021 Index Review, the controversial business involvement criteria have been enhanced to reflect the framework designed by MSCI ESG Research to define significant involvement in controversial activities. According to this framework, there are four restrictiveness levels: Most Restrictive, Highly Restrictive, Moderately Restrictive, Least Restrictive. Also, screens for Fossil Fuel Reserves, Fossil Fuel Extraction and Thermal Coal Power were added.

Appendix III: Controversial Business Involvement Criteria

MSCI ESG Research has developed a framework designed to define significant involvement in controversial activities. According to this framework, there are four levels of restrictiveness: Most Restrictive, Highly Restrictive, Moderately Restrictive, Least Restrictive.

Each controversial activity screened by the MSCI USA ESG Select Index (except Tobacco, Fossil Fuel Extraction and Thermal Coal Power) is assigned to one of these restrictiveness levels.

“Most Restrictive” screen applied

- Controversial Weapons
 - All companies with any tie to Controversial Weapons (cluster munitions, landmines, depleted uranium weapons, biological/chemical weapons, blinding lasers, non-detectable fragments and incendiary weapons), as defined by the methodology of the MSCI Global Ex-Controversial Weapons Indexes available at <https://www.msci.com/index/methodology/latest/XCW>
- Civilian Firearms
 - All companies with any tie to Civilian Firearms, covering the production and distribution (wholesale or retail) of firearms or small arms ammunitions intended for civilian use, as well as ownership of or by another company with involvement. It does not include companies that cater to the military, government, and law enforcement markets

“Highly Restrictive” screen applied

- Nuclear Weapons
 - All companies that manufacture nuclear warheads and/or whole nuclear missiles
 - All companies that manufacture components that were developed or are significantly modified for exclusive use in nuclear weapons (warheads and missiles)
 - All companies that manufacture or assemble delivery platforms that were developed or significantly modified for the exclusive delivery of nuclear weapons
 - All companies that provide auxiliary services related to nuclear weapons

- All companies that manufacture components that were not developed or not significantly modified for exclusive use in nuclear weapons (warheads and missiles) but can be used in nuclear weapons
- All companies that manufacture or assemble delivery platforms that were not developed or not significantly modified for the exclusive delivery of nuclear weapons but have the capability to deliver nuclear weapons
- All companies that manufacture components for nuclear-exclusive delivery platforms

“Least Restrictive” screen applied

- Alcohol
 - All companies deriving 10% or more revenue from the production of alcohol-related products
- Conventional Weapons
 - All companies deriving 10% or more revenue from the production of conventional weapons and components
- Gambling
 - All companies deriving 10% or more revenue from ownership or operation of gambling-related business activities
- Nuclear Power
 - All companies deriving 10% or more revenue from the ownership or operation of nuclear power plants

No specific restrictiveness level applied

- Tobacco
 - All companies classified as “Producer” or “Licensor”
 - All companies classified as “Distributor”, “Retailer”, or “Supplier” that earn 15% or more of revenues from tobacco products
 - All companies classified as “Ownership by a Tobacco Company” or “Ownership of a Tobacco Company”
 -
 -
 -

- Fossil Fuel Extraction
 - All companies deriving 5% or more aggregate revenue (either reported or estimated) from thermal coal mining and unconventional oil and gas extraction.
 - Thermal Coal Mining: Revenue from the mining of thermal coal (including lignite, bituminous, anthracite and steam coal) and its sale to external parties. It does not cover revenue from metallurgical coal; coal mined for internal power generation (e.g. in the case of vertically integrated power producers); intra-company sales of mined thermal coal; and revenue from coal trading
 - Unconventional Oil & Gas Extraction: Revenue from oil sands, oil shale (kerogen-rich deposits), shale gas, shale oil, coal seam gas, and coal bed methane. It does not cover all types of conventional oil and gas production including Arctic onshore/offshore, deep water, shallow water and other onshore/offshore.
- Thermal Coal Power
 - All companies deriving 5% or more revenue (either reported or estimated) from thermal coal-based power generation.

Appendix IV: Methodology for MSCI USA Extended ESG Select Index

The MSCI USA Extended ESG Select Index follows the same index methodology as the MSCI USA ESG Select Index.

Prior to the November 2021 Semi-Annual Index Review, the MSCI USA Extended ESG Select Index applied stricter ineligibility criteria for civilian firearms, as described below:

- **Civilian Firearms**
 - All companies classified as a “Producer”
 - All companies classified as a “Retailer” that earn 5% or more in revenue or more than \$20 million in revenue from civilian firearms-related products.

In addition, during the February 2018 Quarterly Index Review, the turnover of the MSCI USA Extended ESG Select Index was calculated with respect to the constituents of the MSCI USA ESG Select Index.

Appendix V: Changes to this Document

The following sections have been modified as of May 2016:

Section 3.2.1: Controversial Business Involvement Criteria

- Added section

Section 3.2.3: ESG Controversies Score Eligibility

- Updated the MSCI ESG Controversies Score eligibility requirements

Appendix 3: Methodology Transition

- Added details pertaining to the methodology changes effective as of May 2016

Appendix 4: Controversial Business Screening Criteria

The following sections have been modified as of June 2016:

Section 3.2.1: Controversial Business Involvement criteria

- Added Civilian Firearms to the list of controversial business involvement criteria

Appendix 4: Controversial Business Screening Criteria

- Addition of the controversial business screening criteria pertaining to Civilian Firearms

The following sections have been modified as of May 2017:

Section 4.1: Quarterly Index Reviews

- Clarification on the use of ESG data for securities whose data were published later than at the end of the month preceding Index Review.

The following sections have been modified as of June 2017:

- The details on the Corporate Events treatment are now included in Section 4.2.

The following sections have been modified as of November 2017:

- Updated Appendix 3 to add the information on transition of MSCI USA ESG Select Index to GEMLTL

The following sections have been modified as of May 2018:

Appendix 4: Methodology for MSCI USA Extended ESG Select Index

- New Appendix

The following sections have been modified as of November 2021:

Section 2.4: MSCI Climate Change Metrics

- New section

Section 3.2.1: Controversial Business Involvement Criteria

- Added screens for 'Fossil Fuel Extraction' and 'Thermal Coal Power'

Appendix 2: Methodology Transition

- Added details which highlight the changes to the MSCI USA ESG Select Index effective December 2021

Appendix 3: Controversial Business Involvement Criteria

- Updated the controversial business involvement criteria for each activity according to the framework designed by ESG Research
- Added screens for 'Fossil Fuel Extraction' and 'Thermal Coal Power'

Appendix 4: Methodology for MSCI USA Extended ESG Select Index

- Updated to reflect alignment with MSCI USA ESG Select Index Methodology effective December 2021

The following sections have been modified as of June 2023:

Section 3: Maintaining the MSCI USA ESG Select Index

- Methodology book was updated to reflect the transition of the MSCI Global Investable Market Indexes (GIMI) to Quarterly Comprehensive Index Reviews.
- All references to "Semi-Annual Index Reviews" and "Quarterly Index Reviews" of the MSCI GIMI were replaced with "Index Reviews".

Section 4: MSCI ESG Research

- Moved that section after the Section 3 (Maintaining the MSCI USA ESG Select Index)
- Updated the descriptions of MSCI ESG Research products

Contact us

[msci.com/contact-us](https://www.msci.com/contact-us)

AMERICAS

Americas	1 888 588 4567 *
Atlanta	+ 1 404 551 3212
Boston	+ 1 617 532 0920
Chicago	+ 1 312 675 0545
Monterrey	+ 52 81 1253 4020
New York	+ 1 212 804 3901
San Francisco	+ 1 415 836 8800
São Paulo	+ 55 11 3706 1360
Toronto	+ 1 416 628 1007

EUROPE, MIDDLE EAST & AFRICA

Cape Town	+ 27 21 673 0100
Frankfurt	+ 49 69 133 859 00
Geneva	+ 41 22 817 9777
London	+ 44 20 7618 2222
Milan	+ 39 02 5849 0415
Paris	0800 91 59 17 *

ASIA PACIFIC

China North	10800 852 1032 *
China South	10800 152 1032 *
Hong Kong	+ 852 2844 9333
Mumbai	+ 91 22 6784 9160
Seoul	00798 8521 3392 *
Singapore	800 852 3749 *
Sydney	+ 61 2 9033 9333
Taipei	008 0112 7513 *
Thailand	0018 0015 6207 7181 *
Tokyo	+ 81 3 5290 1555

* toll-free

About MSCI

MSCI is a leading provider of critical decision support tools and services for the global investment community. With over 50 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.

The process for submitting a formal index complaint can be found on the index regulation page of MSCI's website at:

<https://www.msci.com/index-regulation>

Notice and disclaimer

This document and all of the information contained in it, including without limitation all text, data, graphs, charts (collectively, the "Information") is the property of MSCI Inc. or its subsidiaries (collectively, "MSCI"), or MSCI's licensors, direct or indirect suppliers or any third party involved in making or compiling any Information (collectively, with MSCI, the "Information Providers") and is provided for informational purposes only. The Information may not be modified, reverse-engineered, reproduced or disseminated in whole or in part without prior written permission from MSCI. All rights in the Information are reserved by MSCI and/or its Information Providers.

The Information may not be used to create derivative works or to verify or correct other data or information. For example (but without limitation), the Information may not be used to create indexes, databases, risk models, analytics, software, or in connection with the issuing, offering, sponsoring, managing or marketing of any securities, portfolios, financial products or other investment vehicles utilizing or based on, linked to, tracking or otherwise derived from the Information or any other MSCI data, information, products or services.

The user of the Information assumes the entire risk of any use it may make or permit to be made of the Information. NONE OF THE INFORMATION PROVIDERS MAKES ANY EXPRESS OR IMPLIED WARRANTIES OR REPRESENTATIONS WITH RESPECT TO THE INFORMATION (OR THE RESULTS TO BE OBTAINED BY THE USE THEREOF), AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, EACH INFORMATION PROVIDER EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES (INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF ORIGINALITY, ACCURACY, TIMELINESS, NON-INFRINGEMENT, COMPLETENESS, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) WITH RESPECT TO ANY OF THE INFORMATION.

Without limiting any of the foregoing and to the maximum extent permitted by applicable law, in no event shall any Information Provider have any liability regarding any of the Information for any direct, indirect, special, punitive, consequential (including lost profits) or any other damages even if notified of the possibility of such damages. The foregoing shall not exclude or limit any liability that may not by applicable law be excluded or limited, including without limitation (as applicable), any liability for death or personal injury to the extent that such injury results from the negligence or willful default of itself, its servants, agents or sub-contractors.

Information containing any historical information, data or analysis should not be taken as an indication or guarantee of any future performance, analysis, forecast or prediction. Past performance does not guarantee future results.

The Information should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. All Information is impersonal and not tailored to the needs of any person, entity or group of persons.

None of the Information constitutes an offer to sell (or a solicitation of an offer to buy), any security, financial product or other investment vehicle or any trading strategy.

It is not possible to invest directly in an index. Exposure to an asset class or trading strategy or other category represented by an index is only available through third party investable instruments (if any) based on that index. MSCI does not issue, sponsor, endorse, market, offer, review or otherwise express any opinion regarding any fund, ETF, derivative or other security, investment, financial product or trading strategy that is based on, linked to or seeks to provide an investment return related to the performance of any MSCI index (collectively, "Index Linked Investments"). MSCI makes no assurance that any Index Linked Investments will accurately track index performance or provide positive investment returns. MSCI Inc. is not an investment adviser or fiduciary and MSCI makes no representation regarding the advisability of investing in any Index Linked Investments.

Index returns do not represent the results of actual trading of investible assets/securities. MSCI maintains and calculates indexes, but does not manage actual assets. The calculation of indexes and index returns may deviate from the stated methodology. Index returns do not reflect payment of any sales charges or fees an investor may pay to purchase the securities underlying the index or Index Linked Investments. The imposition of these fees and charges would cause the performance of an Index Linked Investment to be different than the MSCI index performance.

The Information may contain back tested data. Back-tested performance is not actual performance, but is hypothetical. There are frequently material differences between back tested performance results and actual results subsequently achieved by any investment strategy.

Constituents of MSCI equity indexes are listed companies, which are included in or excluded from the indexes according to the application of the relevant index methodologies. Accordingly, constituents in MSCI equity indexes may include MSCI Inc., clients of MSCI or suppliers to MSCI. Inclusion of a security within an MSCI index is not a recommendation by MSCI to buy, sell, or hold such security, nor is it considered to be investment advice.

Data and information produced by various affiliates of MSCI Inc., including MSCI ESG Research LLC and Barra LLC, may be used in calculating certain MSCI indexes. More information can be found in the relevant index methodologies on www.msci.com.

MSCI receives compensation in connection with licensing its indexes to third parties. MSCI Inc.'s revenue includes fees based on assets in Index Linked Investments. Information can be found in MSCI Inc.'s company filings on the Investor Relations section of msci.com.

MSCI ESG Research LLC is a Registered Investment Adviser under the Investment Advisers Act of 1940 and a subsidiary of MSCI Inc. Neither MSCI nor any of its products or services recommends, endorses, approves or otherwise expresses any opinion regarding any issuer, securities, financial products or instruments or trading strategies and MSCI's products or services are not a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such, provided that applicable products or services from MSCI ESG Research may constitute investment advice. MSCI ESG Research materials, including materials utilized in any MSCI ESG Indexes or other products, have not been submitted to, nor received approval from, the United States Securities and Exchange Commission or any other regulatory body. MSCI ESG and climate ratings, research and data are produced by MSCI ESG Research LLC, a subsidiary of MSCI Inc. MSCI ESG Indexes, Analytics and Real Estate are products of MSCI Inc. that utilize information from MSCI ESG Research LLC. MSCI Indexes are administered by MSCI Limited (UK).

Please note that the issuers mentioned in MSCI ESG Research materials sometimes have commercial relationships with MSCI ESG Research and/or MSCI Inc. (collectively, "MSCI") and that these relationships create potential conflicts of interest. In some cases, the issuers or their affiliates purchase research or other products or services from one or more MSCI affiliates. In other cases, MSCI ESG Research rates financial products such as mutual funds or ETFs that are managed by MSCI's clients or their affiliates, or are based on MSCI Inc. Indexes. In addition, constituents in MSCI Inc. equity indexes include companies that subscribe to MSCI products or services. In some cases, MSCI clients pay fees based in whole or part on the assets they manage. MSCI ESG Research has taken a number of steps to mitigate potential conflicts of interest and safeguard the integrity and independence of its research and ratings. More information about these conflict mitigation measures is available in our Form ADV, available at <https://adviserinfo.sec.gov/firm/summary/169222>.

Any use of or access to products, services or information of MSCI requires a license from MSCI. MSCI, Barra, RiskMetrics, IPD and other MSCI brands and product names are the trademarks, service marks, or registered trademarks of MSCI or its subsidiaries in the United States and other jurisdictions. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and S&P Global Market Intelligence. "Global Industry Classification Standard (GICS)" is a service mark of MSCI and S&P Global Market Intelligence.

MIFID2/MIFIR notice: MSCI ESG Research LLC does not distribute or act as an intermediary for financial instruments or structured deposits, nor does it deal on its own account, provide execution services for others or manage client accounts. No MSCI ESG Research product or service supports, promotes or is intended to support or promote any such activity. MSCI ESG Research is an independent provider of ESG data.

Privacy notice: For information about how MSCI collects and uses personal data, please refer to our Privacy Notice at <https://www.msci.com/privacy-pledge>