

MSCI World ex Australia Custom ESG Leaders Index Methodology

January 2024

Contents

1. Introduction	3
2. Constructing the Index.....	4
2.1 Underlying Universe	4
2.2 Eligibility Criteria.....	4
2.2.1 ESG Ratings Eligibility	4
2.2.2 ESG Controversies Score Eligibility.....	4
2.2.3 Controversial Business Involvement Criteria	4
2.3 Index Construction	5
2.4 Treatment of Unrated Companies	5
3. Maintaining the Index	6
3.1 Annual Index Review	6
3.1.1 Updating the Eligible Universe.....	6
3.1.2 Ranking of Eligible Securities	6
3.1.3 Selection of Eligible Securities	7
3.2 Quarterly Index Reviews.....	7
3.3 Monthly Review of Controversies	7
3.3 Ongoing Event-Related Maintenance	8
4. MSCI ESG Research	10
4.1 MSCI ESG Ratings	10
4.2 MSCI ESG Controversies	10
4.3 MSCI ESG Business Involvement Screening Research.....	10
4.4 MSCI Climate Change Metrics	10
Appendix 1: Guidelines on Achieving the Target Sector Coverage of 50%	12
Appendix 2: Controversial Business Involvement Criteria	13
Appendix 3: Methodology Set	16
Appendix 4: Changes to this Document.....	17

1. Introduction

The MSCI World ex Australia Custom ESG Leaders Index¹ (the “Index”) aims to represent the performance of companies that are selected from an underlying index based on Environmental, Social and Governance (ESG) criteria. These criteria exclude constituents based on involvement in specific business activities, as well as ESG ratings and exposure to ESG controversies. The Index is derived from underlying MSCI indexes (“Parent Indexes”) and aim to achieve sector weights that reflect the sector weights of the corresponding Parent Indexes. The Index construction targets 50% free float-adjusted market capitalization coverage of each Global Industry Classification Standard (GICS®)² sector by selecting constituents primarily based on criteria including the ESG rating, the trend in that rating and the company’s industry-adjusted ESG score.

¹ The Indexes are governed by a set of methodology and policy documents (“Methodology Set”), including the present index methodology document. Please refer to Appendix 4 for more details.

² GICS, the global industry classification standard jointly developed by MSCI Inc. and S&P Dow Jones Indices.

2. Constructing the Index

2.1 Underlying Universe

The Underlying Universe for the Index is defined by the constituents of the MSCI Global Investable Market Indexes (“GIMI”) with the exception of securities classified under the following Global Industry Classification Standard (GICS®)³ Sub-Industries.

- Oil & Gas Drilling (10101010)
- Oil & Gas Equipment & Services (10101020)
- Integrated Oil & Gas (10102010)
- Oil & Gas Exploration & Production (10102020)
- Coal & Consumable Fuels (10102050)

2.2 Eligibility Criteria

The Index uses company ratings and research provided by MSCI ESG Research⁴ to determine eligibility for index inclusion.

2.2.1 ESG Ratings Eligibility

The Index uses MSCI ESG Ratings to identify companies that have demonstrated an ability to manage their ESG risks and opportunities. Companies are required to have an MSCI ESG Rating of ‘BB’ or above to be eligible for inclusion in the MSCI Index.

2.2.2 ESG Controversies Score Eligibility

The MSCI 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. Companies are required to have an MSCI ESG Controversies Score of 3 or above to be eligible for inclusion in the Index.

2.2.3 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 2 for details on these criteria.

- Adult Entertainment
- Alcohol

³ GICS, the global industry classification standard jointly developed by MSCI Inc. and S&P Global.

⁴ See section 4 for further information regarding ESG and climate data used in the Indexes 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.

- Civilian Firearms
- Controversial Weapons
- Conventional Weapons
- Fossil Fuel Extraction and Reserves
- Gambling
- Nuclear Power
- Nuclear Weapons
- Oil Sands
- Thermal Coal Power
- Tobacco

In addition to the above, companies that fail to comply with the United Nations Global Compact Principles are also excluded from the Index.

2.3 Index Construction

The Index is constructed by aggregating the following regional indexes (“Regional Indexes”). Each Regional Index targets 50% of the free float-adjusted market capitalization within each GICS sector of the underlying Parent Index.

Regional Index	Region	Parent Index
MSCI Pacific ex Australia Custom ESG Leaders Index	Developed Asia Pacific	MSCI Pacific ex Australia Index
MSCI Europe & Middle East Custom ESG Leaders Index	Developed Europe & Middle East	MSCI Europe & Middle East Index
MSCI Canada Custom ESG Leaders Index	Canada	MSCI Canada Index
MSCI USA Custom ESG Leaders Index	USA	MSCI USA Index

2.4 Treatment of Unrated Companies

Companies not assessed by MSCI ESG Research on data for any of the following MSCI ESG Research products are not eligible for inclusion in the Index:

- MSCI ESG Ratings
- MSCI ESG Controversies

3. Maintaining the Index

3.1 Annual Index Review

The MSCI Index is reviewed on an annual basis in May to coincide with the May Semi-Annual Index Review of the Parent Indexes, and the changes are implemented at the end of May. In general, the pro forma Index is 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 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 the Index.

At each Annual Index Review, the Eligible Universe is updated, and the composition of the Index is reassessed in order to target 50% free float-adjusted cumulative market capitalization of each sector of the Parent Indexes.

3.1.1 Updating the Eligible Universe

The Eligible Universe is updated during each Annual Index Review.

Companies that are currently not constituents of the Index are evaluated using the same eligibility criteria described in Section 2.2.

Existing constituents of the Index are maintained in the Eligible Universe if they meet all the following conditions:

- MSCI ESG Rating of 'BB' or above
- MSCI ESG Controversies Score of 1 or above
- Not screened by the business involvement criteria described in Section 2.2.3

3.1.2 Ranking of Eligible Securities

For each sector, eligible securities of the Regional Parent Index as described in Section 2.2 are ranked based on the following criteria:

- ESG Rating
- ESG Trend⁵ (positive ESG Trend preferred to neutral ESG Trend and neutral ESG Trend preferred to negative ESG Trend)
- Current index membership (existing constituents above non-constituents)
- Industry-adjusted ESG scores
- Decreasing free float-adjusted market capitalization

⁵ ESG Trend is defined as the latest change in ESG Rating over the previous 12 months. A security without any change in ESG Rating over the previous 12 months will have a neutral ESG Trend. Also, companies that receive a re-initiated ESG Rating due to a change in the ESG Ratings Industry are considered to have a neutral ESG Trend.

3.1.3 Selection of Eligible Securities

For each sector, eligible securities of the Regional Parent Index are then selected from the Ranked Universe in the following order until the target 50% coverage of the sector of each Regional Parent Index by cumulative free float-adjusted market capitalization is reached:

- Securities in the top 35% cumulative free float-adjusted market capitalization coverage of the ranked universe, including the first security that increases the cumulative coverage above 35%
- 'AAA' and 'AA' rated securities in the top 50% cumulative free float-adjusted market capitalization coverage of the ranked universe, including the first security that increases the cumulative coverage above 50%
- Current index constituents in the top 65% cumulative free float-adjusted market capitalization coverage of the ranked universe, including the first security that increases the cumulative coverage above 65% if that security is a current index constituent
- Remaining eligible securities in the ranked universe

Please see Appendix 1 for additional details on the ranking and selection rules.

3.2 Quarterly Index Reviews

The Index is also reviewed on a quarterly basis to coincide with the regular Index Reviews of the Parent Index. The changes are implemented at the end of February, August and November. The pro forma Index is in general announced nine business days before the effective date.

For the Quarterly Index Reviews, MSCI ESG Ratings, MSCI ESG Controversies Score assessments and MSCI BISR data are taken as of the end of the month preceding the Index Reviews, i.e., January, July and October. For some securities, this 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.

At the Quarterly Index Reviews, existing constituents are deleted from the Index if they do not meet the eligibility criteria described in Section 3.1.1. Existing constituents that meet the eligibility criteria are retained in the Index.

Additions, from the eligible securities as per Section 2.2, are made only to those sectors where the current market capitalization coverage is less than 45%, until the 50% target is reached.

Market price movements may cause small deviations in the sector coverage between two Index Reviews. Therefore, in order to minimize turnover, a buffer of 10% is used on the target coverage of 50% to define under-representation.

3.3 Monthly Review of Controversies

Index constituents are reviewed on a monthly basis for the involvement in ESG controversies⁶ and for compliance with the United Nations Global Compact Principles. Existing constituents will be deleted if they face controversies as defined by MSCI ESG Controversy Score of 0 ('Red flag' companies), or if they fail to comply with the UN Global Compact Principles.

⁶ The monthly review of ESG controversies was implemented in January 2024.

MSCI uses MSCI ESG Controversies data as of the end of the month preceding the review (e.g., end of June data for the end of July monthly review). For some securities, such data may not be published by MSCI ESG Research by the end of the month preceding the review. For such securities, MSCI will use ESG data published after the end of month, when available, for the monthly review of the Index.

The pro forma Indexes are generally announced nine business days before the first business day of the month.

3.3 Ongoing Event-Related Maintenance

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. For cases where additions are noted below, securities will be added to the index only if added to the Parent Index.

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 MSCI ESG Rating downgrade and/or change in business involvement screens.

EVENT TYPE

EVENT DETAILS

New additions to the Parent Index

New securities added to the Parent Index (such as IPOs, other early inclusions and migrations from a different size-segment) will be added to the Index on the date of security inclusion only if they meet the eligibility criteria described in Section 2.2 and the market capitalization coverage of the sector to which the security belongs is less than 45%.

Spin-Offs

All securities created as a result of the spin-off of an existing Index constituent will not be added to the Index at the time of event implementation. Reevaluation for addition in the Indexes will occur at the subsequent Index Review.

Merger/Acquisition

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.

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.

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

4. MSCI ESG Research

The Index use company ratings and research provided by MSCI ESG Research LLC (MSCI ESG Research), a subsidiary of MSCI Inc. The indexes use the following MSCI ESG Research products: MSCI ESG Ratings, MSCI ESG Controversies, MSCI 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-change-solutions>

Appendix 1: Guidelines on Achieving the Target Sector Coverage of 50%

The Index targets 50% coverage of the free float-adjusted market capitalization of each GICS sector of the regional Parent Index. The underlying principle in the construction of the Index is to achieve cumulative sector coverage closest to 50%, while aiming to maintain index stability.

The following guidelines are used in achieving the target cumulative sector coverage of 50%:

- For each sector, the eligible companies of the regional Parent Index are first ranked based on the company level ESG Rating.
- If two companies have the same ESG Rating, the company with better ESG Trend is given priority (positive ESG Trend preferred to neutral ESG Trend and neutral ESG Trend preferred to negative ESG Trend).
- In case of two companies with the same ESG Rating and the same ESG Trend, the existing index constituent is given priority to maintain index stability. Between two existing constituents with the same ESG Rating and the same ESG Trend, the company with the higher industry-adjusted ESG Score is given priority. For two existing index constituents with the same industry-adjusted ESG score, the security with the largest free float-adjusted market capitalization is given priority.
- The cumulative sector coverage at each rank is calculated.
- In each sector, companies are selected as per the rules mentioned in Section 4.1.3 until the cumulative sector coverage crosses 50% or there are no eligible securities left to be selected.
- MSCI defines the company that increases the cumulative sector coverage above 50% as the “marginal company”.

If the marginal company is a current index constituent, then it is always selected.

If the marginal company is not a current index constituent, then it is selected only if the cumulative sector coverage with the marginal company is closer to 50% compared to the cumulative sector coverage without the marginal company.

- The minimum cumulative sector coverage is set to 45%.

The marginal company is always selected if this is required to achieve cumulative sector coverage of 45%.

- Securities which are ineligible as per Section 4.1.1 will not be selected even if the cumulative sector coverage after selection of all eligible securities is below 50%.

Appendix 2: Controversial Business Involvement Criteria

Companies, whose activities meet the following criteria, as determined by MSCI ESG Research, are excluded from the Index:

- **Adult Entertainment**
 - All companies classified as a “Producer”
 - All companies deriving 5% or more aggregate revenue from the production, distribution and retail of adult entertainment materials
- **Alcohol**
 - All companies deriving 5% or more revenue from the production of alcohol-related products
 - All companies deriving 15% or more aggregate revenue from the production, distribution, retail and supply of alcohol-related products
- **Civilian Firearms**
 - All companies classified as “Producer” of firearms and small arms ammunitions for civilian markets. It does not cover companies that cater to the military, government, and law enforcement markets
 - All companies deriving 5% or more aggregate revenue from the production and distribution (wholesale or retail) of firearms or small arms ammunition intended for civilian use
- **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>
- **Conventional Weapons**
 - All companies deriving 10% or more revenue from the production of conventional weapons and components

Fossil Fuel Extraction and Reserves

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

All companies with evidence of owning oil and/or natural gas reserves, and deriving at least 15% revenue (either reported or estimated) from the extraction and production of oil and gas

All companies with evidence of owning thermal coal reserves, and deriving at least 15% revenue (either reported or estimated) from the mining of thermal coal and its sale to external parties

- **Gambling**

- All companies those own or operate gambling facilities such as casinos, racetracks, bingo parlors, or other betting establishments, including: horse, dog, or other racing events that permit wagering; lottery operations; online gambling; pari-mutuel wagering facilities; bingo; pachislot and pachinko parlors; slot machines; Jai-alai; mobile gambling; and sporting events that permit wagering
- All companies deriving 5% or more aggregate revenue from gambling-related business activities

- **Nuclear Power**

- All companies generating 5% or more of their total electricity from nuclear power in a given year
- All companies that have 5% or more of installed capacity attributed to nuclear sources in a given fiscal year
- All companies deriving 15% or more aggregate revenue from nuclear power activities

- **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
- All companies that manufacture nuclear weapons, including nuclear warheads, intercontinental ballistic missiles, and ballistic missile submarines, which are capable of the delivery of nuclear warhead
- All companies that manufacture key nuclear weapons components

- All companies that are 50 percent or more owned by a company with nuclear weapons involvement
- All companies that own 20 to 49.99 percent of a company with nuclear weapons involvement
- **Oil Sands**
 - All companies deriving 5% or more revenue from oil sands extraction, which own oil sands reserves and disclose evidence of deriving revenue from oil sands extraction. Companies that derive revenue from non-extraction activities (e.g. exploration, surveying, processing, refining) or intra-company sales are not excluded. Additionally, companies that own oil sands reserves with no associated revenue are also not excluded
- **Thermal Coal Power**
 - All companies deriving 5% or more revenue (either reported or estimated) from thermal coal-based power generation
- **Tobacco**
 - All companies classified as a “Producer”
 - All companies deriving 5% or more aggregate revenue from the production, distribution, retail, supply and licensing of tobacco-related products
- **Global Norms – United Nations Global Compact Compliance**
 - All companies that fail to comply with the United Nations Global Compact principles

Appendix 3: Methodology Set

The Indexes are governed by a set of methodology and policy documents ("Methodology Set"), including the present index methodology document as mentioned below:

- Description of methodology set – www.msci.com/index/methodology/latest/ReadMe
- MSCI Corporate Events Methodology – www.msci.com/index/methodology/latest/CE
- MSCI Fundamental Data Methodology – www.msci.com/index/methodology/latest/FundData
- MSCI Index Calculation Methodology – www.msci.com/index/methodology/latest/IndexCalc
- MSCI Index Glossary of Terms – www.msci.com/index/methodology/latest/IndexGlossary
- MSCI Index Policies – www.msci.com/index/methodology/latest/IndexPolicy
- MSCI Global Industry Classification Standard (GICS) Methodology – www.msci.com/index/methodology/latest/GICS
- MSCI Global Investable Market Indexes Methodology – www.msci.com/index/methodology/latest/GIMI
- ESG Factors In Methodology*

The Methodology Set for the Indexes can also be accessed from MSCI's webpage <https://www.msci.com/index-methodology> in the section 'Search Methodology by Index Name or Index Code'.

* 'ESG Factors in Methodology' contains the list of environmental, social, and governance factors considered, and how they are applied in the methodology (e.g., selection, weighting or exclusion). It can be accessed in the Methodology Set as described above.

Appendix 4: Changes to this Document

The following section has been updated as of January 2024:

Section 2.4: Treatment of Unrated Companies

- New section detailing the treatment of companies with ratings and research not available from MSCI ESG

Section 3: Maintaining the Index

- 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”)
- The monthly review of ESG controversies was implemented effective January 1, 2024 and the proforma indexes were announced nine business days before the effective date.

Section 4: MSCI ESG Research

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

Appendix 3: Methodology Set

- Added details on the Methodology Set for the Indexes

Contact us

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: .

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>.