

MSCI Frontier and Emerging Markets Select Index Methodology

December 2020

Contents

- 1 Introduction 4
- 2 Index Construction 5
 - 2.1 Eligible Markets..... 5
 - 2.2 FM and EM Eligible Universes 5
 - 2.3 Minimum Free Float-Adjusted Market Capitalization Requirements 5
 - 2.4 Selecting Securities for the MSCI Frontier and Emerging Markets Select Index 6
 - 2.5 FM and EM Group Weights 7
 - 2.6 FM Country Cap 7
 - 2.7 EM Country Cap 7
 - 2.8 Diversification considerations 8
- 3 Index Maintenance 9
 - 3.1 Semi-Annual Index Reviews 9
 - 3.1.1 Eligible Markets 9
 - 3.1.2 Updating the Eligible Universe 9
 - 3.1.3 Updating the Minimum Free Float-Adjusted Market Capitalization Requirement 10
 - 3.1.4 Selecting Securities for the MSCI Frontier and Emerging Markets Select Index 10
 - 3.1.5 FM and EM Group Weights 12
 - 3.1.6 FM Country Cap 12
 - 3.1.7 EM Country Cap 12
 - 3.1.8 Diversification Considerations 12
 - 3.2 Quarterly Index Reviews 13
 - 3.2.1 Updating the FM and EM Minimum Free Float-Adjusted Market Capitalization Requirement 13

- 3.2.2 Additions During Quarterly Index Reviews 13
- 3.2.3 Deletions During Quarterly Index Reviews 13
- 3.2.4 FM and EM Group Weights 14
- 3.2.5 FM Country Cap 14
- 3.2.6 EM Country Cap 14
- 3.2.7 Diversification Considerations..... 14
- 3.3 Policy Regarding Trading Suspensions for Individual Securities during Index Reviews 14
- 3.4 Cutoff Date for Market Capitalization and Prices Used for the Rebalancing 14
- 3.5 Announcement Policy 15
- 3.6 Ongoing Event Related Changes 15
 - 3.6.1 Spin-offs, IPOs and other early inclusions 15
 - 3.6.2 Number of Securities in the Index Following Corporate Events 15
- Appendix I: EM Annual Eligibility Review 16
- Appendix II: List of Eligible Markets..... 17

1 Introduction

The MSCI Frontier and Emerging Markets Select Index (the “Index”) is based on a selection of countries from the MSCI Frontier Markets Investable Market Index (IMI) as well as a selection of countries from the MSCI Emerging Markets IMI, which together make up the “Parent Index”. The MSCI Frontier and Emerging Markets Select Index aims to reflect the performance of Frontier Markets (FM) and the lower size spectrum of Emerging Markets (EM), while putting stronger emphasis on the tradability & investability of the constituents compared to its Parent Index. This is achieved through six main features:

- A minimum liquidity level¹ is required for securities to be included in the Index
- Only stocks exhibiting sufficient foreign room² are eligible for inclusion
- A higher minimum free float-adjusted market capitalization requirement is applied compared to the Parent Index
- A minimum length of trading requirement for both FM and EM securities
- The eligibility of new Frontier and Emerging Markets for the Index is subject to an annual review

In addition, adjustments are made to achieve the following:

- A desired mix between FM and EM securities in terms of both index weight and number of constituents
- A cap on both FM and EM countries to avoid concentration
- A cap to avoid Group Entity concentration

¹ Measured by the 12-month Annualized Traded Value Ratio (ATVR).

² Foreign room is defined as the proportion of shares still available to foreign investors relative to the maximum allowed.

2 Index Construction

2.1 ELIGIBLE MARKETS

MSCI maintains a list of Eligible FM and EM Markets for the MSCI Frontier and Emerging Markets Select Index. This list is reviewed and changes are announced once a year coinciding with the November Semi-Annual Index Reviews (SAIRs) of the Parent Index. The list can be found in Appendix II.

2.2 FM AND EM ELIGIBLE UNIVERSES

The FM and EM Eligible Universes for the MSCI Frontier and Emerging Markets Select Index are independently derived, by applying investability screens to FM and EM securities in the Parent Index respectively. In order to be included in the Eligible Universe, a security:

- Must not be subject to a Limited Investability Factor (LIF) due to low foreign room;
- Must have a 12-month Annualized Traded Value Ratio (ATVR) above 10% and;
- Must have started trading at least two months before the implementation date of the Index Review.

2.3 MINIMUM FREE FLOAT-ADJUSTED MARKET CAPITALIZATION REQUIREMENTS

In order to be included in the MSCI Frontier and Emerging Markets Select Index, a security from the Eligible Universe must meet specific Minimum Free Float-Adjusted Market Capitalization Requirements.

The Frontier Markets (FM) Minimum Free Float-Adjusted Market Capitalization Requirement is derived as follows:

- First, the FM securities in the Parent Index are sorted in descending order of free float-adjusted market capitalization and the cumulative coverage of the free float-adjusted market capitalization of the FM securities in the Parent Index is calculated at each security.
- Second, when the cumulative free float-adjusted market capitalization coverage of 90% of the FM securities in the Parent Index is reached, the free float-adjusted market capitalization of the security at that point defines the FM Minimum Free Float-Adjusted Market Capitalization Requirement.

Similarly, the Emerging Markets (EM) Minimum Free Float-Adjusted Market Capitalization Requirement is derived as follows:

- First, the EM securities in the Parent Index are sorted in descending order of free float-adjusted market capitalization and the cumulative coverage of the free float-adjusted market capitalization of the EM securities in the Parent Index is calculated at each security.
- Second, when the cumulative free float-adjusted market capitalization coverage of 90% of the EM securities in the Parent Index is reached, the free float-adjusted market capitalization of the security at that point defines the EM Minimum Free Float-Adjusted Market Capitalization Requirement.

2.4 SELECTING SECURITIES FOR THE MSCI FRONTIER AND EMERGING MARKETS SELECT INDEX

First, the securities in the FM Eligible Universe that have a free float-adjusted market capitalization above or equal to the FM Minimum Free Float-Adjusted Market Capitalization Requirement are counted.

Then, if the resulting number is:

- 60 or above: all the securities counted are included in the MSCI Frontier and Emerging Markets Select Index.
- Below 60: the securities in the FM Eligible Universe are ranked by decreasing free float-adjusted market capitalization and the top 60 securities are selected for inclusion in the Index, even if the smallest securities fail the FM Minimum Free Float-Adjusted Market Capitalization Requirement.

The index then targets a third (by count) of the securities selected from the FM countries, as the number of securities to be included from the eligible EM countries.

Next, the securities in the EM Eligible Universe are ranked by decreasing free float-adjusted market capitalization and selected in order, until the EM target count is reached.

2.5 FM AND EM GROUP WEIGHTS

The target cumulative free float-adjusted market capitalization weights of 80% and 20% are assigned to FM and EM constituents respectively in the MSCI Frontier and Emerging Markets Select Index.

If the total free float-adjusted market capitalization weight of FM constituents is below (above) 80% after the application of the rules described in Section 2.4, the weights of FM securities are proportionally increased (decreased) in order to achieve a cumulative weight of exactly 80%. The weights of EM constituents are then proportionally decreased (increased) in order to achieve a cumulative weight of exactly 20%.

The security weights resulting from the above adjustment are determined by applying an FM or EM Cumulative Weight Adjustment Factor to the security free float-adjusted market capitalizations. A single FM Cumulative Weight Adjustment Factor is applied to all FM constituents. A single EM Cumulative Weight Adjustment Factor is applied to all EM constituents.

2.6 FM COUNTRY CAP

A cap of 40% is applied to the cumulative weight of the two largest FM countries in the MSCI Frontier and Emerging Markets Select Index.

If the total free float-adjusted market capitalization weight of the largest two FM countries is greater than 40% after application of the rules described in Section 2.5, the weights of these two countries (and their respective securities) are proportionally decreased in order to achieve a cumulative weight of exactly 40%. The weights of the other FM countries (and their respective securities) are then proportionally increased but not beyond the capped weight of the second largest FM country prior to the capping step.

The security weights resulting from the above adjustment are determined by applying an FM Country Capping Factor to the security free float-adjusted market capitalizations, in addition to any adjustment factors applied before this step. The FM Country Capping Factor is the same for all securities classified in a given FM country.

2.7 EM COUNTRY CAP

A cap of 5% is applied to the weight of each EM country in the MSCI Frontier and Emerging Markets Select Index.

If the free float-adjusted market capitalization weight of any EM country is greater than 5% after the application of the rules described in Section 2.5, the weight of this country (and its respective securities) is proportionally decreased in order to achieve a weight of exactly 5%. The weights of the other EM countries (and their respective securities) are then proportionally increased but not beyond 5%.

The security weights resulting from the above adjustment are determined by applying an EM Country Capping Factor to the security free float-adjusted market capitalizations, in addition to any adjustment factors applied before this step. The EM Country Capping Factor is the same for all securities classified in a given EM country.

2.8 DIVERSIFICATION CONSIDERATIONS

The MSCI Frontier and Emerging Markets Select Index is designed to take into account certain fund diversification rules. After the application of the rules described in Section 2.7, the following steps are performed.³

- The sum of the weights of all group entities representing more than 5% weight will be constrained at 25%;
- A buffer of 10% of the value is applied on the aggregation factor of 5% and the aggregation constraint of 25%. More specifically, as part of a rebalancing, the aggregated weight of all group entities with weight above 4.5%, cannot exceed 22.5% of the Index weight;
- Between two Index Review effective dates, the Index is rebalanced at the end of any business day on which the constraints of 25% for group entities representing more than 5% are breached;
- The above reweighting resulting from group entity capping would take priority over any other methodological requirement.

³ The diversification rules here follow the MSCI 25/50 methodology but using different constraints.

3 Index Maintenance

3.1 SEMI-ANNUAL INDEX REVIEWS

The composition of the MSCI Frontier and Emerging Markets Select Index is fully reviewed on a semi-annual basis coinciding with the May and November Semi-Annual Index Reviews (SAIRs) of the MSCI Global Investable Market Indexes.

Changes in Foreign Inclusion Factors (FIFs) and updates in number of shares for existing constituents effective at the SAIRs as per the MSCI Global Investable Market Indexes methodology are reflected in the MSCI Frontier and Emerging Markets Select Index.

3.1.1 ELIGIBLE MARKETS

MSCI maintains a list of Eligible FM and EM Markets for the MSCI Frontier and Emerging Markets Select Index. This list is reviewed and changes are announced once a year coinciding with the November SAIRs.

At the November SAIRs, EM countries must additionally meet the requirements of the EM Annual Eligibility Review, which is based on the latest GNI per capita statistics and country weights in the MSCI ACWI Index. Details on the EM Annual Eligibility Review can be found in Appendix I.

Changes to the list of Eligible Markets are implemented at the May SAIRs. The list of Eligible Markets can be found in Appendix II.

Potential changes to the list of Eligible Markets due to market reclassifications from FM to EM or vice-versa may trigger a review and implementation outside of the above schedule, provided that these are implemented with 6 months' notice.

3.1.2 UPDATING THE ELIGIBLE UNIVERSE

During a SAIR, the FM and EM Eligible Universes are reviewed according to the rules described in Section 2.2. Only securities from the IMI of Eligible FM and EM Markets can be included in the updated FM and EM Eligible Universes. In addition, to minimize index turnover, an existing constituent of the MSCI Frontier and Emerging Markets Select Index may remain in the FM and EM Eligible Universes if its 12-month ATVR falls below the minimum level requirement of 10% as long as it is above 2/3rd of that level.

3.1.3 UPDATING THE MINIMUM FREE FLOAT-ADJUSTED MARKET CAPITALIZATION REQUIREMENT

During a SAIR, the FM and EM Minimum Free Float-Adjusted Market Capitalization Requirements are updated using the rules described in Section 2.3.

3.1.4 SELECTING SECURITIES FOR THE MSCI FRONTIER AND EMERGING MARKETS SELECT INDEX

This section describes the rules used for including securities in the MSCI Frontier and Emerging Markets Select Index during SAIRs.

As a first step, the following securities in the updated FM Eligible Universe are counted:

- Existing constituents of the Index that have a free float-adjusted market capitalization above or equal to 2/3rd of the FM Minimum Free Float-Adjusted Market Capitalization Requirement
- Securities not currently constituents of the Index that have a free float-adjusted market capitalization above or equal to the FM Minimum Free Float-Adjusted Market Capitalization Requirement

Then, if the resulting number is:

- 60 or above: all the securities counted are included in the Index.
- below 60: securities in the updated FM Eligible Universe are selected for inclusion in the Index with the following priority until 60 securities are selected:
 - Existing constituents of the Index that have a free float-adjusted market capitalization above or equal to the FM Minimum Free Float-Adjusted Market Capitalization Requirement
 - Securities not currently constituents of the Index that have a free float-adjusted market capitalization above or equal 1.5x the FM Minimum Free Float-Adjusted Market Capitalization Requirement
 - Existing constituents of the Index that have a free float-adjusted market capitalization above or equal to 2/3rd of the FM Minimum Free Float-Adjusted Market Capitalization Requirement
 - Securities not currently constituents of the Index that have a free float-adjusted market capitalization above or equal to the FM Minimum Free Float-Adjusted Market Capitalization Requirement

- Existing constituents of the Index that have a free float-adjusted market capitalization between 1/3rd and 2/3rd of the FM Minimum Free Float-Adjusted Market Capitalization Requirement
- Securities not currently constituents of the Index that have a free float-adjusted market capitalization between 2/3rds of and one times the FM Minimum Free Float-Adjusted Market Capitalization Requirement
- Existing constituents of the Index that have a free float-adjusted market capitalization below 1/3rd of the FM Minimum Free Float-Adjusted Market Capitalization Requirement
- Securities not currently constituents of the Index that have a free float-adjusted market capitalization below 2/3rds of the FM Minimum Free Float-Adjusted Market Capitalization Requirement

Within each of the above steps, the securities are selected in descending order of free float-adjusted market capitalization.

A factor of 1/3rd is then applied to the number of securities selected from the FM countries. Then, If the resulting number is:

- Within 1.15 times and 0.85 times the number of current EM constituents: The number of current EM constituents is retained as the target number of securities to be included from the eligible EM countries
- More than 1.15 times or less than 0.85 times the number of current EM constituents: The resulting number is the new target number of securities to be included from the eligible EM countries

Next, securities in the updated EM Eligible Universe are selected for inclusion in the MSCI Frontier and Emerging Markets Select Index with the following priority until the target number of securities to be included from the eligible EM countries is achieved:

- Existing constituents of the Index that have a free float-adjusted market capitalization above or equal to the EM Minimum Free Float-Adjusted Market Capitalization Requirement
- Securities not currently constituents of the Index that have a free float-adjusted market capitalization above or equal 1.5x the EM Minimum Free Float-Adjusted Market Capitalization Requirement
- Existing constituents of the Index that have a free float-adjusted market capitalization above or equal to 2/3rds of the EM Minimum Free Float-Adjusted Market Capitalization Requirement

- Securities not currently constituents of the Index that have a free float-adjusted market capitalization above or equal to the EM Minimum Free Float-Adjusted Market Capitalization Requirement
- Existing constituents of the Index that have a free float-adjusted market capitalization between 1/3rd and 2/3rds of the EM Minimum Free Float-Adjusted Market Capitalization Requirement
- Securities not currently constituents of the Index that have a free float-adjusted market capitalization between 2/3rds and one times the EM Minimum Free Float-Adjusted Market Capitalization Requirement
- Existing constituents of the Index that have a free float-adjusted market capitalization below 1/3rd of the EM Minimum Free Float-Adjusted Market Capitalization Requirement
- Securities not currently constituents of the Index that have a free float-adjusted market capitalization below 2/3rds of the EM Minimum Free Float-Adjusted Market Capitalization Requirement

Within each of the above steps, the securities are selected in descending order of free float-adjusted market capitalization.

3.1.5 FM AND EM GROUP WEIGHTS

During SAIRs, the target cumulative free float-adjusted market capitalization weights of 80% and 20% are assigned to FM and EM constituents respectively in the MSCI Frontier and Emerging Markets Select Index as described in Section 2.5.

3.1.6 FM COUNTRY CAP

During SAIRs, a cap of 40% is applied to the cumulative weight of the two largest countries in the MSCI Frontier and Emerging Markets Select Index as described in Section 2.6.

3.1.7 EM COUNTRY CAP

During SAIRs, a cap of 5% is applied to the weight of each EM country in the MSCI Frontier and Emerging Markets Select Index as described in Section 2.7.

3.1.8 DIVERSIFICATION CONSIDERATIONS

During SAIRs, the fund diversification rules for group entity capping are applied as described in Section 2.8.

3.2 QUARTERLY INDEX REVIEWS

The composition of the MSCI Frontier and Emerging Markets Select Index is partially reviewed at the time of the February and August Quarterly Index Reviews (QIRs) of the MSCI Global Investable Market Indexes.

Changes in Foreign Inclusion Factors (FIFs) and updates in number of shares for existing constituents effective at the QIRs as per the MSCI Global Investable Market Indexes methodology are reflected in the MSCI Frontier and Emerging Markets Select Index.

3.2.1 UPDATING THE FM AND EM MINIMUM FREE FLOAT-ADJUSTED MARKET CAPITALIZATION REQUIREMENT

During a QIR, the FM and EM Minimum Free Float-Adjusted Market Capitalization Requirements are updated using the rules described in Section 2.3.

3.2.2 ADDITIONS DURING QUARTERLY INDEX REVIEWS

During a QIR, securities from the pro forma Parent Index are added to the MSCI Frontier and Emerging Markets Select Index if they:

- Meet the investability screens described in Section 2.2;
- Have a free float-adjusted market capitalization above 1.8 times the FM Minimum Free Float-Adjusted Market Capitalization Requirement, for FM securities;
- Have a free float-adjusted market capitalization above 1.8 times the EM Minimum Free Float-Adjusted Market Capitalization Requirement, for EM securities; and
- Were not constituents of the Parent Index as part of the previous SAIR.

FM securities are added to the Index with an FM Country Capping factor equal to the capping factor determined at the previous SAIR for securities classified in the same country.

3.2.3 DELETIONS DURING QUARTERLY INDEX REVIEWS

Deletions from the Parent Index at the time of QIRs are simultaneously deleted from the MSCI Frontier and Emerging Markets Select Index.

3.2.4 FM AND EM GROUP WEIGHTS

During QIRs, the target cumulative free float-adjusted market capitalization weights of 80% and 20% are assigned to FM and EM constituents respectively in the MSCI Frontier and Emerging Markets Select Index as described in Section 2.5.

3.2.5 FM COUNTRY CAP

During QIRs, a cap of 40% is applied to the cumulative weight of the two largest countries in the MSCI Frontier and Emerging Markets Select Index as described in Section 2.6.

3.2.6 EM COUNTRY CAP

During QIRs, a cap of 5% is applied to the weight of each EM country in the MSCI Frontier and Emerging Markets Select Index as described in Section 2.7.

3.2.7 DIVERSIFICATION CONSIDERATIONS

During QIRs, the fund diversification rules for group entity capping are applied as described in Section 2.8.

3.3 POLICY REGARDING TRADING SUSPENSIONS FOR INDIVIDUAL SECURITIES DURING INDEX REVIEWS

If a security that is scheduled to be added to or deleted from the MSCI Frontier and Emerging Markets Select Index is suspended from trading on the day before the effective implementation date of the index review, MSCI will cancel the implementation for the security. When the implementation of a deletion from the Parent Index is postponed, the implementation of the deletion from the MSCI Frontier and Emerging Markets Select Index will also be postponed. When the deletion is implemented in the Parent Index after the security resumes trading, the security will be simultaneously deleted from the MSCI Frontier and Emerging Markets Select Index.

3.4 CUTOFF DATE FOR MARKET CAPITALIZATION AND PRICES USED FOR THE REBALANCING

MSCI uses pro forma data as of the close of the business day prior to the announcement (ten business days before the effective date of each Semi-Annual Index Review and Quarterly Index Review) to derive the pro forma MSCI Frontier and

Emerging Markets Select Index for each Semi-Annual Index Review and Quarterly Index Review.

3.5 ANNOUNCEMENT POLICY

The pro forma MSCI Frontier and Emerging Markets Select Index is announced nine business days before the effective date of each Semi-Annual Index Review and Quarterly Index Review.

3.6 ONGOING EVENT RELATED CHANGES

With the exception of the treatment as described below, the MSCI Frontier and Emerging Markets Select Index follows the event maintenance of the Parent Index. Details regarding the treatment of corporate events not covered below can be found in the MSCI Corporate Events Methodology Book, available at:

<http://www.msci.com/index-methodology>

3.6.1 SPIN-OFFS, IPOs AND OTHER EARLY INCLUSIONS

Companies spun off from existing constituents of the MSCI Frontier and Emerging Markets Select Index that are added to the Parent Index at the time of the event will be simultaneously added to the MSCI Frontier and Emerging Markets Select Index.

Other early inclusions, including IPOs, will only be considered for inclusion in the MSCI Frontier and Emerging Markets Select Index at the Index Review following the event.

3.6.2 NUMBER OF SECURITIES IN THE INDEX FOLLOWING CORPORATE EVENTS

In the event that the number of FM (EM) securities in the MSCI Frontier and Emerging Markets Select Index would fall below 60 (20) respectively due to corporate events, no additions or deletions would be made to restore the number of securities to 60 (20) until the next Semi-Annual Index Review.

Appendix I: EM Annual Eligibility Review

The Emerging Markets country composition of the MSCI Frontier and Emerging Markets Select Index is reviewed once a year at the November Semi-Annual Index Review. The EM Annual Eligibility Review is based on the latest GNI per capita statistics and the country weights in the MSCI ACWI Index.

During the EM Annual Eligibility Reviews an Emerging Market country is added if:

- The country's weight in the MSCI ACWI Index has been below 10bp for at least 3 consecutive years or below 5bp for at least 2 consecutive years;

and

- The country's GNI per capita is lower than the threshold for the upper middle-income categories of the World Bank.

During EM Annual Eligibility Review an Emerging Market country is deleted if:

- The country's weight in the MSCI ACWI Index has been above 15bp for at least 3 consecutive years or above 20bp for at least 2 consecutive years;

or

- The country's GNI per capita is greater than the threshold for the high-income categories of the World Bank.

Appendix II: List of Eligible Markets

List of Eligible FM Markets for the MSCI Frontier and Emerging Markets Select Index effective as of December 22, 2020:

Bahrain	Morocco
Bangladesh	Nigeria
Croatia	Oman
Estonia	Romania
Jordan	Serbia
Kazakhstan	Slovenia
Kenya	Sri Lanka
Lebanon	Tunisia
Lithuania	Vietnam
Mauritius	

List of Eligible EM Markets for the MSCI Frontier and Emerging Markets Select Index effective as of December 22, 2020:

Argentina	Pakistan
Colombia	Peru
Egypt	Philippines

Contact us

clientservice@msci.com

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 redisseminated 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. 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 www.msci.com.

MSCI ESG Research LLC is a Registered Investment Adviser under the Investment Advisers Act of 1940 and a subsidiary of MSCI Inc. Except with respect to any applicable products or services from MSCI ESG Research, 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 intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. Issuers mentioned or included in any MSCI ESG Research materials may include MSCI Inc., clients of MSCI or suppliers to MSCI, and may also purchase research or other products or services from MSCI ESG Research. 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.

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 Standard & Poor's. "Global Industry Classification Standard (GICS)" is a service mark of MSCI and Standard & Poor's.

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, reports and ratings based on published methodologies and available to clients on a subscription basis. We do not provide custom or one-off ratings or recommendations of securities or other financial instruments upon request.

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