

INFORMATION DOCUMENT- DESCRIPTION OF METHODOLOGIES SET

November 2017

CONTENTS

- 1 Introduction 3
- 2 Methodology Document Set: Overview 4
 - 2.1 Common Global Document Set..... 5
 - 2.2 Specific Index Methodology Documents..... 6
- 3 Methodology Document Set: Technical Description..... 7
- Appendix I: Methodology Document Set Structure..... 9

1 INTRODUCTION

MSCI calculates a wide variety of indexes all of which are governed by rules-based methodologies. MSCI also calculates custom indexes at clients' request. These are constructed and maintained based on MSCI indexes to which a client-defined screen, exclusion list or weighting is applied. Custom indexes may be governed by either standard methodologies with modified parameters or specific custom methodologies.

The construction and maintenance of each MSCI index can be fully described by a set of methodology documents as well as custom parameter sheets in the case of custom indexes. The number of methodologies describing an index may vary depending on its complexity. This document provides detailed guidance on how and in which order they should be read in order to facilitate understanding the full set of rules governing the index.

2 METHODOLOGY DOCUMENT SET: OVERVIEW

The methodology document set is a collection of documents that describes the complete set of construction and maintenance rules of any MSCI Index.

It includes

- **Common global document set** – This includes documents common to all indexes, such as index policies, index calculation or treatment of corporate events.
- **Specific Index methodology set** – This includes the index specific rules and guidelines and may consist of one or more index methodology documents and a parameter sheet in the case of specific custom indexes.

An MSCI Index may be constructed by the application of a single specific methodology such as the MSCI Global Investable Markets Indexes (GIMI) methodology or through the application of two or more specific methodologies and thus may require referencing to multiple methodology books for a complete description.

MSCI’s primary standard equity index methodology is the MSCI Global Investable Market Index (“GIMI”) methodology. Other equity indexes, including some custom indexes, are in general derived and maintained by applying other, e.g. factor/ESG/thematic/capped methodologies, on the universe of securities defined by the MSCI Global Investable Market Indexes (generally referred to as "Parent Index").

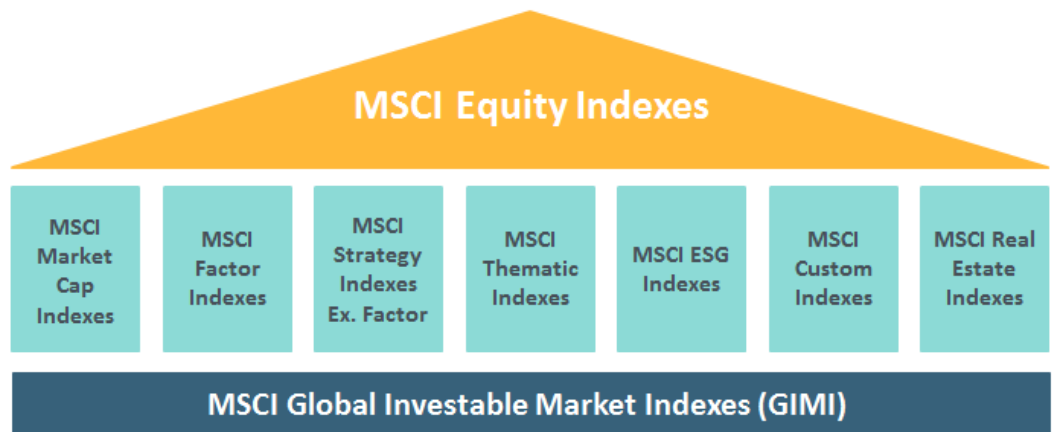


Figure 1: MSCI Index Offerings

For example the MSCI World Quality Index is created by applying MSCI Quality Index methodology on the MSCI World Index (Parent Index) which is based on the MSCI Global Investable Market Indexes methodology.

Some indexes may be constructed by applying more than two layers of methodologies applied sequentially. For example – the MSCI World Commodity Producers Sector Capped Index is created by first creating the MSCI World Index using the MSCI GIMI Methodology, then creating the MSCI World Commodity Producers Index by applying the MSCI Commodity Produces Index methodology on the MSCI World, and finally the MSCI World Commodity Producers Sector Capped Index is created by applying the MSCI Capped Index methodology on the MSCI World Commodity Producers Index.

Thus, the MSCI World Quality Index can be described by two layers of index methodologies (GIMI and Quality), while the MSCI World Commodity Producers Sector Capped Index can be described by three layers of index methodologies (GIMI, Commodity Producers and Capped).

In some cases, indexes are created by first creating component indexes by separately applying different index methodologies on the same Parent Index and then combining these component indexes in a specified proportion to create the final index.

For instance, the MSCI World Factor Mix A-Series Index is created as an equal weighted combination of the three indexes – the MSCI World Minimum Volatility Index, MSCI World Value Weighted Index and the MSCI World Quality Index. In such cases, the methodology document set will include the GIMI methodology in the first layer, all the three component methodologies in the second layer, and the MSCI Factor Mix A-Series methodology is included in the final layer.

Appendix 1 has a more detailed depiction of the methodology document set structure for an index with multiple index methodology layers.

2.1 COMMON GLOBAL DOCUMENT SET

The global common document set includes the set of documents described below which govern the most basic definitions, calculations, processes and policies applicable to all of MSCI’s indexes. As described earlier, these methodology documents are included by default in all the methodology document sets unless otherwise stated in the specific index methodology (see section 2.2).

2.1.1 MSCI INDEX POLICIES

This document describes the various governance policies related to the construction, maintenance and termination of the MSCI indexes.

2.1.2 MSCI INDEX CALCULATION METHODOLOGY

This document describes MSCI’s general Index calculation methodology for the MSCI Indexes.

2.1.3 MSCI CORPORATE EVENTS METHODOLOGY

This document describes the guiding principles and methodology for implementation of corporate events in the MSCI indexes.

2.1.4 MSCI FUNDAMENTAL DATA METHODOLOGY

This document describes the fundamental data and financial ratios used in the construction of various MSCI indexes.

2.2 SPECIFIC INDEX METHODOLOGY DOCUMENTS

In addition to the global common document set described above, each index is described by a set of rules described in the relevant methodology book. As described earlier, multiple books may be needed to fully describe the index methodology.

In cases where the standard methodology parameters are altered based on client requests, a parameter sheet is included to detail the specific customization of the methodology relative to the standard parameters.

3 METHODOLOGY DOCUMENT SET: TECHNICAL DESCRIPTION

The documents included in the methodology document set correspond to the versions of the documents active on the date of retrieving the set.

The whole set may be divided into 3 categories as below:

INFORMATION DOCUMENT- Description of Methodologies Set (marked by prefix 0_): This current document

(0_INFORMATION_DOCUMENT_Description_of_Methodologies_Set_YYYYMMDD)

Global Common Document Set (marked by prefix 0_): As described in Section 2.1, these are included by default in all the methodology document sets.

These include:

- 0_MSCI_Equity_Index_Policies_YYYYMMDD
- 0_MSCI_Fundamental_Data_Methodology_YYYYMMDD
- 0_MSCI_Index_Calculation_Methodology_YYYYMMDD
- 0_MSCI_Corporate_Events_Methodology_YYYYMMDD
- 0_MSCI_Index_Glossary_of_Terms_YYYYMMDD

Specific index methodology documents: These are marked by prefix 1_, and if necessary 2_ and so on.

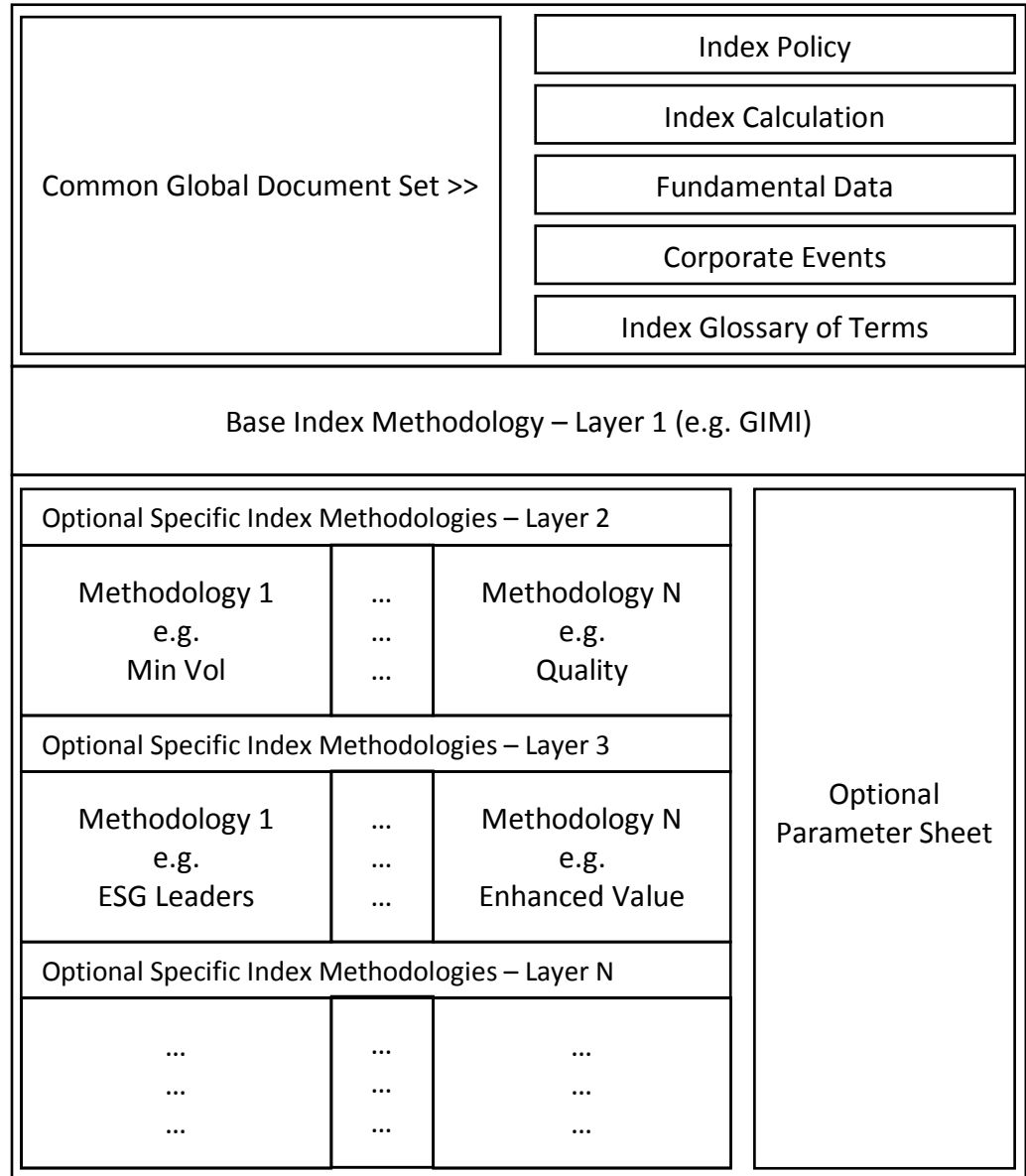
The methodology document set inherently describes the order of application of the individual index methodologies to construct the given index. If an index is constructed by applying multiple methodologies sequentially on top of one another, they are presented in the appropriate order. The following are examples of how this is applied. For the indexes described in Section 2, the methodology document set will appear as described below:

- For the MSCI World Quality Index, the methodology document set will include (along with the 6 documents listed above) the MSCI GIMI methodology in the first layer and the MSCI Quality Index methodology in the second layer as 1_MSCI_Global_Investable_Market_Indexes_Methodology_YYYYMMDD and 2_MSCI_Quality_Indexes_Methodology_YYYYMMDD.
- For the MSCI World Commodity Producers Sector Capped Index, the methodology document set will include the MSCI GIMI Methodology in the first layer, the MSCI Commodity Producers Index methodology in the second layer, and the MSCI Capped Index methodology in the third layer, as 1_MSCI_Global_Investable_Market_Indexes_Methodology_YYYYMMDD, 2_MSCI_Commodity_Producers_Indexes_Methodology_YYYYMMDD and 3_MSCI_Capped_Indexes_Methodology_YYYYMMDD.

- For the MSCI World Factor Mix A-Series Index, the methodology document set will include the MSCI GIMI Methodology in the first layer, the MSCI Minimum Volatility Index methodology, the MSCI Value Weighted Index methodology and the MSCI Quality Index methodology all in the second layer and the MSCI Factor Mix A-Series Index methodology in the third layer as
 1_MSCI_Global_Investable_Market_Indexes_Methodology_YYYYMMDD,
 2_MSCI_Quality_indexes_Methodology_YYYYMMDD,
 2_MSCI_Minimum_Volatility_Indexes_Methodology_YYYYMMDD,
 2_MSCI_Value_Weighted_indexes_Methodology_YYYYMMDD and
 3_MSCI_Factor_Mix_A-Series_Indexes_Methodology_YYYYMMDD.

For custom indexes created by altering the standard methodology parameters based on client requests, the methodology document set will also include a parameter sheet to detail the specific customization of the methodology relative to the standard parameters.

APPENDIX I: METHODOLOGY DOCUMENT SET STRUCTURE



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 |
| Sao 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 * |
| Tokyo | + 81 3 5290 1555 |

* = toll free

ABOUT MSCI

For more than 40 years, MSCI's research-based indexes and analytics have helped the world's leading investors build and manage better portfolios. Clients rely on our offerings for deeper insights into the drivers of performance and risk in their portfolios, broad asset class coverage and innovative research.

Our line of products and services includes indexes, analytical models, data, real estate benchmarks and ESG research.

For more information, visit us at www.msci.com.

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.
- 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, FEA, InvestorForce, 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.