

MSCI EM 50 INDEX METHODOLOGY

September 2017

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1 INTRODUCTION

The MSCI EM 50 Index is based on the MSCI Emerging Markets Index (“Parent Index”) and includes 50 of its largest constituents, putting stronger emphasis on tradability compared to the Parent Index. To enhance index tradability, the MSCI EM 50 Index applies eligibility screens that exclude smaller emerging market countries and replaces constituent securities for selected markets with depositary receipts. The index is weighted by free float-adjusted market capitalization.

2 INDEX CONSTRUCTION

2.1 DEFINING THE SELECTION UNIVERSE

The selection universe of the MSCI EM 50 Index is based on the constituent securities of the MSCI Emerging Markets Index except for Brazil, India, Mexico and Russia. For these four markets the selection universe is limited to American Depositary Receipts (ADRs) and Global Depositary Receipts (GDRs) listed in New York and London of the underlying MSCI Emerging Markets Index¹.

Real Estate Investment Trusts (REITs) and China B shares are excluded from the selection universe.

2.2 SECURITY FILTERS

Constituent securities in the MSCI EM 50 Index are subject to the liquidity requirements of the MSCI Global Investable Market Indexes². For Brazilian, Indian, Mexican and Russian depositary receipts, similar liquidity filters are applied to ensure their investability. Specifically, a depositary receipt must have a 3-month Annualized Traded Value Ratio (ATVR) of at least 15%, a 12-month Annualized Traded Value Ratio (ATVR) of at least 15% and a 3-month frequency of trading of at least 80%³. The depositary receipt must have started trading at least three months before the implementation of an index review.

Limited Investability Factors (LIFs) are applied in the MSCI Emerging Markets Index to securities with limited investability, for example in case of low foreign room for foreign investors⁴. Constituent securities of the MSCI Emerging Markets Index subject to a LIF are generally not eligible for the MSCI EM 50 Index. However, Brazilian, Indian, Mexican and Russian depositary receipts remain eligible for the MSCI EM 50 Index in case a LIF is applied due to low foreign room to the underlying constituent securities in the MSCI Emerging Markets Index. In such case the LIF is not applied to the depositary receipt in the MSCI EM 50 Index.

¹ Only level II and level III American Depositary Receipts (ADRs) listed on the New York Stock Exchange or the NASDAQ, Global Depositary Receipts (GDRs) as well as ADRs listed on the London Stock Exchange are eligible for inclusion in the MSCI EM 50 Index.

² Please refer to Sections 2.2.3 and 2.3.5 of the MSCI Global Investable Market Indexes Methodology for the liquidity requirements of the MSCI Global Investable Market Indexes.

³ In cases where the data used in the calculation of the 12-month ATVR is not available, the previous 6 months, 3 months or 1 month data will be used depending on data availability. For the 3-month ATVR and 3-month frequency of trading, 1 month data is used if 3 months data is not available.

⁴ Foreign room is defined as the proportion of shares still available to foreign investors relative to the maximum allowed.

If a company has multiple share classes, only the largest security by free float-adjusted market capitalization is eligible for the MSCI EM 50 Index.

2.3 COUNTRY FILTERS

Country filters are applied in order to minimize the number of countries and currencies in the MSCI EM 50 Index. Only countries with more than three percent weight in the underlying MSCI Emerging Markets Index are included. Among the remaining countries, only countries with two or more securities ranking in the top 50 companies by free-float adjusted market capitalization are included.

2.4 INDEX CONSTRUCTION

After applying the security and country eligibility filters, the remaining securities in the eligible universe are ranked by free-float adjusted market capitalization in descending order and the largest 50 securities are identified to construct the MSCI EM 50 Index. The index is weighted by free float-adjusted market capitalization.

3 INDEX MAINTENANCE

3.1 INDEX REVIEW

The composition of the MSCI EM 50 Index is fully reviewed on a quarterly basis to coincide with the regular index reviews (Semi-Annual Index Reviews in May and November and Quarterly Index Reviews in February and August) of the MSCI Global Investable Market Indexes. The changes are implemented at the end of February, May, August and November.

During the index reviews, MSCI will reassess the eligibility of constituent and non-constituent countries. Constituent countries for which the weights in the MSCI Emerging Markets Index fall below three percent but remain above two percent continue to be eligible for the MSCI EM 50 Index. Constituent countries in which there is at least one security continue to be included in the MSCI EM 50 Index. Non-constituent countries meeting the eligibility criteria described under section 2 will be included in the MSCI EM 50 Index, provided they have at least two securities eligible for addition to the MSCI EM 50 Index.

During the index reviews, the number of securities in the MSCI EM 50 Index will be restored to 50. Between the index reviews the number of index constituents may differ from 50 due to additions and deletions resulting from corporate events on existing constituents.

Index reviews may also result in changes in Foreign Inclusion Factors (FIF) and updates in number of shares for existing constituents.

If a security that is scheduled to be added to or deleted from the MSCI EM 50 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. For index changes affecting number of shares or foreign inclusion factors, the implementation will be aligned with the underlying MSCI Emerging Markets Index. When the implementation of a deletion from a Parent Index is postponed, the implementation of the deletion from the indexes derived from that Parent 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 derived index.

3.1.1 BUFFER RULES

To minimize index turnover, buffer rules will be applied to the MSCI EM 50 Index.

Brazilian, Indian, Mexican and Russian depositary receipts that are constituents of the MSCI EM 50 Index remain eligible if they fail the liquidity requirements described in section 2.2⁵ but have:

- A 12-month ATVR of at least 10%
- A 3-month ATVR of at least 10%
- A 3-month frequency of trading of at least 70%

Non-constituents that satisfy all eligibility criteria and rank 35th or above in the selection universe will be added to the MSCI EM 50 Index and existing constituents that rank below 65th in the selection universe will be deleted from the MSCI EM 50 Index. If the number of securities differs from 50 after the buffer rules are applied, the lowest ranked securities within the index will be deleted, or the next highest ranked securities will be added to the MSCI EM 50 Index to restore the number of constituents to 50.

3.1.2 CUTOFF DATE FOR PRICES USED FOR THE REBALANCING

The cutoff date for prices used for the rebalancing of the MSCI EM 50 Index is the close of the 9th business day prior to the February, May, August and November quarterly index review implementation dates.

3.1.3 ANNOUNCEMENT POLICY

The results of the rebalancing are announced nine business days before the effective date of each Quarterly Index Review.

3.2 ONGOING EVENT-RELATED MAINTENANCE

With the exception of the treatment as described below, the MSCI EM 50 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>

⁵ For liquidity buffer rules applied to current constituents of the MSCI EM 50 Index other than depositary receipts, please refer to Section 3.1.2.3 of the MSCI Global Investable Market Indexes Methodology.

3.2.1 EARLY INCLUSIONS OF NON-INDEX CONSTITUENTS

A spun-off security that qualifies for immediate inclusion in the underlying MSCI Emerging Markets Index will generally be eligible for immediate inclusion to the MSCI EM 50 Index. In the event that a spun-off security that is not added to the MSCI Emerging Markets Index does not trade on the ex-date, it will remain in the MSCI EM 50 Index until it is effectively deleted from the MSCI Emerging Markets Index.

There will be no early inclusion for IPOs. Securities that are added to the underlying MSCI Emerging Markets Index between index reviews will only be considered for inclusion in the MSCI EM 50 Index during the next index review, with the exception of spun-off securities as described above.

3.2.2 EARLY DELETIONS OF EXISTING CONSTITUENTS

If a security is deleted from the underlying MSCI Emerging Markets Index due to corporate events, it will be automatically removed from the MSCI EM 50 Index. Examples are securities of companies that are acquired, file for bankruptcy, companies that file for protection from their creditors and/or are suspended and for which a return to normal business activity and trading is unlikely in the near future.

When the number of securities in the MSCI EM 50 Index falls below or rises above 50 due to corporate events, no additions or deletions will be made to restore the number of securities to 50 until the next index review.

3.3 MARKET REVIEWS

MSCI reviews on an annual basis the list of markets for which the eligible universe is restricted to depositary receipts as defined in sub-section 2.1. Changes resulting from this annual review will be implemented coinciding with the May Semi-Annual Index Review

4 INDEX HISTORY METHODOLOGY

The methodology used for the MSCI EM 50 Index history is identical to the ongoing methodology with the following exception:

In the index history, all securities with Foreign Ownership Limits (FOL) have been considered as non eligible, while in the ongoing methodology only securities to which a Limited Investability Factor (LIF) is being applied in the underlying MSCI Emerging Markets Index are generally excluded. This is explained by the lack of historical data on Foreign Room, which is the main driver of the application of LIFs in the ongoing methodology.

METHODOLOGY BOOK TRACKED CHANGES

The following sections have been modified since November 2012:

Section 3.1: Quarterly Index Review

- Clarification on implementation of suspended securities

The following sections have been modified since August 2017:

- Section 2.2: Security Filters Clarification on liquidity data used during index reviews

Section 3.1.2: Cutoff Date for Prices Used for the Rebalancing

- Added new section

Section 3.1.3: Announcement policy

- Added new section

Section 3.2: Ongoing Event-Related Changes

- Added clarification

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