

MSCI 25/50 Indices Methodology

May 2011



Table of Contents

Section 1: Introduction to the MSCI 25/50 Indices	. 3
Section 2: Index Objectives and Guiding Principles	. 4
Section 3: Index Construction and Maintenance Methodology	. 5
Appendix I: Optimization Parameters	. 8
Appendix II: Special Capping Rules	C



Section 1: Introduction to the MSCI 25/50 Indices

Introduction

Under the current US Internal Revenue Code, among other things, a fund needs to satisfy certain tests, such as those relating to asset diversification and sources of income, for qualification as a "regulated investment company" or "RIC". More specifically, one requirement of a RIC is that at the end of each quarter of a RIC's tax year no more than 25% of the value of the RIC's assets may be invested in a single issuer and the sum of the weights of all issuers representing more than 5% of the fund should not exceed 50% of the fund's total assets.

The MSCI 25/50 Indices take into account these investment limits, offering a pertinent benchmarking alternative for RIC compliant funds. The indices are calculated and delivered on an index-by-index basis, upon client request.

This document describes the methodology that MSCI uses to calculate the MSCI 25/50 Indices by applying the weight constraints set forth herein to the non-constrained, free-float adjusted market capitalization weighted MSCI Equity Indices (herein, "Parent Indices").



Section 2: Index Objectives and Guiding Principles

In designing an appropriate methodology for constructing the MSCI 25/50 Indices from underlying non-constrained indices, the following principles have guided MSCI.

2.1 Reflecting the 25% and 50% concentration constraints

Reflecting the 25% and 50% concentration constraints is the primary consideration in terms of both index construction and index maintenance. Ensuring timely and on-going reflection of the constraints requires an MSCI 25/50 Index to be rebalanced periodically. The MSCI 25/50 Indices are rebalanced in February, May, August and November.

MSCI also offers other indices reflecting additional or different constraints. See Appendix II for further details.

2.2 Minimizing tracking error to the Parent Index

Minimizing the tracking error between the MSCI 25/50 Index and the Parent Index, while keeping the index turnover to a reasonable level, is another important objective of the current methodology. This is achieved by rebalancing the MSCI 25/50 Index using an optimization process that aims to minimize the constituent weight differences between the MSCI 25/50 Index and the Parent Index.



Section 3: Index Construction and Maintenance Methodology

3.1 Construction and Rebalancing of the MSCI 25/50 Indices

The MSCI 25/50 Index methodology follows a portfolio optimization framework. The Barra Optimizer is utilized to perform the optimization function which is aimed at minimizing index turnover, tracking error and extreme deviation from the Parent Index.¹

3.1.1 Constraint targets

The MSCI 25/50 Index has the following constraints:

- No issuer exceeds 25% of index weight
- All issuers with weight above 5% cannot exceed 50% of the index weight

3.1.2 Minimizing weight distance from Parent Index

The index aims at minimizing the weight distance from the pro forma Parent Index. The active risk or the tracking error of the MSCI 25/50 Index versus the Parent Index is measured as the distance between the constituent weights of the MSCI 25/50 Index and Parent Index.

3.1.3 Minimize Transaction Cost

A transaction cost is applied as a proxy for index turnover on rebalancing from the current MSCI 25/50 Index to the pro forma MSCI 25/50 Index.

3.1.4 Minimum weight of constituents

The minimum weight of any MSCI 25/50 Index constituent is equal to the weight of the smallest constituent in the pro forma Parent Index.

3.2 Buffer Rules

A buffer of 10% of the value of each constraint is used in order to reduce the risk of non-compliance due to short term market movements between two quarterly rebalancing. As a result, at the point of constructing or rebalancing the MSCI 25/50 indices, the weight of any single issuer cannot exceed 22.5% of the index weight and all issuers with weight above 4.5% cannot exceed 45% of the index weight.

3.3 Maintenance Rules

3.3.1 Quarterly Index Reviews

The MSCI 25/50 Indices are rebalanced quarterly and the changes resulting from the rebalancing are made as of the close of the last business day of each February, May, August and November, to coincide with the Quarterly Index Reviews of their Parent Indices.

The pro forma MSCI 25/50 Indices are in general rebalanced five business days before the effective date. The changes resulting from the rebalancing are announced on the same day.

-

¹ See www.barra.com/support/library/optimizer_practical_convex_quadratic_programming.pdf for a detailed description of the Barra Mean-Variance Optimizer.



In case the pro forma MSCI 25/50 Index violates the 25/50 constraints between the announcement date and the effective date, the previously announced results will be discarded and a newly rebalanced pro forma index will be announced.

There is no index rebalancing due to non-compliance between Quarterly Index Reviews.

At each rebalancing, a constraint factor is calculated for each constituent of the MSCI 25/50 Index. The constraint factor is defined as the weight in the MSCI 25/50 Index at the time of the rebalancing divided by the weight in the Parent Index. The constraint factor as well as the constituents of the index remains constant between index reviews except in case of corporate events as described below.

3.3.2 Ongoing Event Related Changes

A security added to the Parent Index following a corporate event is added to the MSCI 25/50 Index with an estimated capped weight, without rebalancing of the MSCI 25/50 index.

In the event of a merger or an acquisition where an index constituent acquires another index constituent or merges with another index constituent, the remaining company is maintained in the index with a constraint factor calculated as the weighted average of the constraint factors before the corporate event.

If a spun off security of an index constituent is added to the Parent Index, it will be added to the MSCI 25/50 Index with the same constraint factor as the parent security.

The deletion of a constituent from the Parent Index following a corporate event triggers its deletion from the MSCI 25/50 Index without rebalancing of the MSCI 25/50 Index.

The addition of a newly eligible security in the Parent Index -- for example an early inclusion of a large IPO, or a security migrating to the Parent Index from another size segment -- will result in the inclusion of that security in the MSCI 25/50 Index and consequently trigger the full rebalancing of the MSCI 25/50 Index.

Please refer to the MSCI Corporate Events Methodology book available at: http://www.msci.com/products/indices/size/standard/methodology.html for more details.

3.4 Issuer Concentration Issues

A minimum of 15 issuers in the Parent Index is required at any point in time for an MSCI 25/50 Index to be rebalanced as described in Section 3.1. In the event the number of issuers drops below 15 but remains above 11 following a corporate event or a regular index review, MSCI will apply the following adjustments:

- Number of issuers drops to 14: the buffer mentioned in sub-section 3.2 will be reduced from 10% to 9%. Thus, the weight of any single issuer cannot exceed 22.75% of the index weight and all issuers with weight above 4.55% cannot exceed 45.5% of the index weight.
- Number of issuers drops to 13: the buffer mentioned in sub-section 3.2 will be reduced from 10% to 4%. Thus, the weight of any single issuer cannot exceed 24% of the index weight and all issuers with weight above 4.8% cannot exceed 48% of the index weight.



• Number of issuers drops to 12: the buffer mentioned in sub-section 3.2 will be reduced from 10% to 0%. Thus, the weight of any single issuer cannot exceed 25% of the index weight and all issuers with weight above 5% cannot exceed 50% of the index weight.

The MSCI 25/50 Index will need to be discontinued if the number of issuers drops below 12 as mathematically no solution can satisfy the 25% and 50% constraints. MSCI will however temporarily maintain the MSCI 25/50 Index for a minimum of two months before discontinuation by adding the necessary number of securities to the index. The index discontinuation will coincide with one the subsequent regular index reviews. The securities to be added will be chosen in the following order of priority:

- Securities deleted from the MSCI 25/50 Index, provided they exhibit required liquidity and were not deleted due to financial difficulties, etc.
- Eligible securities of relevant size not included in the Parent Index, e.g., largest small cap sizesegment securities if the Parent Index is a MSCI Standard Index.

In the event that no securities are eligible for temporary addition to the MSCI 25/50 Index, MSCI will be providing an index, as close as possible to the 25/50 constraints, for a minimum of two months before discontinuation. The index discontinuation will coincide with one of the subsequent regular index reviews.

MSCI will announce any of these adjustments to all impacted clients ahead of implementation.



Appendix I: Optimization Parameters

The following parameters are used in the optimization process:

- The Parent Index is used as the benchmark.
- The objective is to minimize tracking error to the Parent Index.
- A diagonal covariance matrix is used with the same risk for each constituent (1) and zero for all off-diagonals.
- The minimum weight of capped index constituents is set to the weight of the smallest constituent in the Parent Index. This avoids the situation where the optimized index holds a security with a very small weight.
- The risk aversion parameter is set to default value of 0.0075, which is widely used in mean-variance optimizations.
- One way transaction cost is set to 0.5%, which aims to achieve a balance between minimizing active risk and turnover.



Appendix II: Special Capping Rules

Additional capping rules may be applied to address other investment constraints, such as:

- No issuer can exceed 10% of the weight and all issuers with weight above 5% cannot exceed 25% of the index weight.
- No issuer can exceed 5% of the index weight.



Client Service Information is Available 24 Hours a Day

clientservice@msci.com

Americas		Europe, Middle East & Africa		Asia Pacific	
Americas Atlanta Boston Chicago Montreal Monterrey New York San Francisco Sao Paulo Stamford Toronto	1.888.588.4567 (toll free) + 1.404.551.3212 + 1.617.532.0920 + 1.312.675.0545 + 1.514.847.7506 + 52.81.1253.4020 + 1.212.804.3901 + 1.415.836.8800 + 55.11.3706.1360 +1.203.325.5630 + 1.416.628.1007	Amsterdam Cape Town Frankfurt Geneva London Madrid Milan Paris Zurich	+ 31.20.462.1382 + 27.21.673.0100 + 49.69.133.859.00 + 41.22.817.9777 + 44.20.7618.2222 + 34.91.700.7275 + 39.02.5849.0415 0800.91.59.17 (toll free) + 41.44.220.9300	China North China South Hong Kong Seoul Singapore Sydney Tokyo	10800.852.1032 (toll free) 10800.152.1032 (toll free) + 852.2844.9333 +827.0768.88984 800.852.3749 (toll free) + 61.2.9033.9333 + 81.3.5226.8222

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 reproduced or redisseminated 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 many not be used to create indices, 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 wilful 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.
- 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.
- MSCI's indirect wholly-owned subsidiary Institutional Shareholder Services, Inc. ("ISS") is a Registered Investment Adviser under the Investment Advisers Act of 1940. Except with respect to any applicable products or services from MSCI ESG Research Information, which are provided by ISS), none of MSCI's products or services recommends, endorses, approves or otherwise expresses any opinion regarding any issuer, securities, financial products or instruments or trading strategies and none of MSCI's products or services is 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.
- The MSCI ESG Indices use ratings and other data, analysis and information from MSCI ESG Research. MSCI ESG Research is produced by ISS or its subsidiaries. Issuers mentioned or included in any MSCI ESG Research materials may be a client of MSCI, ISS, or another MSCI subsidiary, or the parent of, or affiliated with, a client of MSCI, ISS, or another MSCI subsidiary, including ISS Corporate Services, Inc., which provides tools and services to issuers. MSCI ESG Research materials, including materials utilized in any MSCI ESG Indices 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, ISS, CFRA, FEA, and other MSCI brands and product names are the trademarks, service marks, or registered trademarks or service marks 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.

About MSCI

MSCI Inc. is a leading provider of investment decision support tools to investors globally, including asset managers, banks, hedge funds and pension funds. MSCI products and services include indices, portfolio risk and performance analytics, and governance tools.

The company's flagship product offerings are: the MSCI indices which include over 148,000 daily indices covering more than 70 countries; Barra portfolio risk and performance analytics covering global equity and fixed income markets; RiskMetrics market and credit risk analytics; ISS governance research and outsourced proxy voting and reporting services; FEA valuation models and risk management software for the energy and commodities markets; and CFRA forensic accounting risk research, legal/regulatory risk assessment, and due-diligence. MSCI is headquartered in New York, with research and commercial offices around the world.