MSCI Index Policies

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Overview

MSCI provides a wide variety of indexes[1] all of which are governed by rules-based methodologies. MSCI's primary equity index methodology is the MSCI Global Investable Market Index ("GIMI") methodology. Other equity indexes, including custom indexes created at clients' requests, are in general derived and maintained based on the universe of securities used by the MSCI Global Investable Market Indexes, i.e., the MSCI Global Investable Equity Universe. Exceptions to this are highlighted in the respective index methodology documentation or custom index specification documents.

Groupings of MSCI equity indexes include regional and individual country indexes and related size, and sector indexes which are based on the GIMI methodology. These indexes serve as the "parent" indexes for other MSCI indexes created according to methodologies that address specific investment themes and strategies such as MSCI Factor Indexes, MSCI ESG Indexes, MSCI Thematic Indexes and MSCI Strategy Indexes (other than MSCI Factor Indexes).

MSCI also calculates certain blended indexes which, according to methodological rules, combine MSCI equity indexes with indexes representing other asset classes or combine indexes representing only non-equity asset classes.

Importantly, while different indexes address specific investment themes and strategies, they are all managed by a single set of governance committees, procedures and policies

MSCI publishes the methodologies governing its indexes. MSCI methodology documents outline index objectives and detail the rules and guidelines followed by MSCI to create and maintain MSCI indexes in a wide set of possible circumstances, including situations of market stress. MSCI's rules-based index methodologies are designed to ensure that indexes are determined with integrity and that discretion is not used in the production of the indexes except in unusual cases not effectively addressed by the methodology.

A particular index will be governed by a number of methodology documents, including the specific index methodology book (as well as a parameter sheet if required), the MSCI Index Policies, and, in most cases, the MSCI Global Investable Market Indexes Methodology (or other parent index methodology), the MSCI Index Calculation Methodology, the MSCI Corporate Events Methodology, and the MSCI Fundamental Data Methodology, all of which are available on the MSCI's website www.msci.com.

MSCI also calculates custom indexes at clients' requests. These are constructed and maintained based on parent MSCI indexes and methodologies to which, for example, a client-defined screen, exclusion list or weighting is applied. These modifications are documented in specification forms and/or parameter sheets which are used in conjunction with the index methodology documents that govern the relevant parent MSCI Index to construct and maintain the custom index. In cases where a custom index methodology is more complex and would benefit from more detailed explanation, a separate methodology document is prepared. Custom index methodologies and/or parameter sheets are published on MSCI's website at the client's request.

[1] Within this document, "MSCI indexes" or "indexes" refer to MSCI's equity and blended indexes. This document does not apply to MSCI property-based or fund-based real estate indexes.

Index Design Guidelines

These guidelines are followed in the development and maintenance of all MSCI indexes. MSCI indexes aim to accurately and objectively measure performance of a market or economic reality as represented by the investment opportunity set based on a market, market segment, theme, or investment strategy. This objective should be clearly stated in the specific index methodology document.

Unless explicitly stated otherwise, new indexes should be constructed from the Global Investable Equity Universe. This universe starts with the broadest set of available listed securities and screens for investability including liquidity, size and ownership restrictions. A broader or different universe used for an index methodology should consider these investability factors as well, and should be described in the relevant methodology book.

MSCI indexes should be constructed and maintained with the following prime objectives in mind:

- Representativeness
- Replicability
- Efficiency

Index methodologies should be rules-based and aim to find the right balance between representativeness of the underlying market or strategy and replicability of the index in an actual portfolio in a cost efficient manner.

The rationale for adopting each specific methodology should be based on a thorough review of the market and economic reality the indexes are intended to represent. For new index methodologies, this review should include back-testing whenever appropriate.

For custom indexes, the objective of the index is determined in conjunction with the client and the client-defined screen, exclusion list, weighting constraints or combination of methodologies is documented in the custom index specification and/or parameter sheet or a specific methodology document as agreed with the client. Clients may request that the specific custom index parameters and methodologies be posted on www.msci.com.

Index and Methodology Review Process

All MSCI indexes are rebalanced regularly and methodologies governing indexes are reviewed at least annually, usually contemporaneously with the index rebalancing process.

As part of the regular index rebalancing process, MSCI Indexes are reviewed relative to the market or strategy they are designed to reflect. This assists in the evaluation of methodologies for both consistency and effectiveness and may highlight situations where changes in the methodology are warranted to reflect changes in the underlying market opportunity. Proposed changes are presented to the Equity Index Committee (“EIC”) and will trigger a consultation if they are material.

The index rebalancing frequency is typically quarterly or semi-annually, but can be daily, monthly or triggered by conditions specified in the relevant methodology. Timely and consistent treatment of corporate events also occurs outside regular rebalancings.

Methodologies are formally reviewed at least annually, typically by analyzing a representative set of indexes, to ensure the methodology continues to reflect its stated objective and complies with the current MSCI Index Policies document. Some methodologies, such as the MSCI Global Investable

Market Indexes Methodology are reviewed quarterly, coinciding with each index rebalancing. In addition, all new methodologies are reviewed and approved by the EIC and all rebalancing tools are thoroughly tested.

MSCI may trigger out-of-cycle methodology reviews based on, but not limited to, one of the following:

- Market participant feedback
- Underlying market review and rebalancing
- Unusual corporate events and other constituent data changes
- Current events and news

Index changes resulting from index rebalancing or methodology reviews are announced simultaneously to all market participants in advance of implementation.

In cases of significant index changes resulting from methodology changes, methodology transitions or market reclassifications, MSCI may consider potential overall market turnover while assessing replicability of the proposed changes. In such cases MSCI may consider implementation of changes in multiple phases to reduce potential market impact and enhance replicability of a change.

Methodology and Index Consultation Policy

Markets are complex and market participants are diverse. When faced with a situation that may result in a material[2] change to an MSCI index methodology or its implementation, in order to inform its decision process, MSCI seeks to understand the differing perspectives in the investment community through its broad consultation process. Public consultations provide essential feedback for increasing transparency, providing access to information, fueling innovation and improvement, and ensuring the on-going relevance of the indexes. After considering the feedback from the consultation process, the decision making remains the responsibility of MSCI solely, through the Equity Index Committee ("EIC") and, if necessary, the Index Policy Committee ("IPC").

Consultation papers and discussions with market participants are an ideal channel to share the reasoning and the motivation behind MSCI proposals. Structured dialogues enable institutional investors to share their views on existing benchmarks and benchmark practices as well as on potential innovations and required changes. In addition, public consultations give institutional investors the lead time they need to fully evaluate potential benchmark changes and their implications.

Methodology and Index Consultation Process

MSCI commences a public consultation when the EIC approves a proposal to make a material change to a methodology as recommended by an internal group, e.g., Index Research, Corporate Events, Corporate Data based on the internal analysis triggered by an internal review or any

[2] The EIC determines if a methodology change is material. This determination is made based on the analysis of the currently estimated or potential future impact of the methodology change on the index composition, measured by the changes in the selection and/or weights of the index constituents. Fundamental changes in the index construction principles would be generally considered as material.

feedback from market participants on a particular topic. Such proposals may generally result from either market related developments or regular methodology reviews.

Once the decision to open a consultation has been taken by the EIC, a consultation document is created, which describes the consultation topic and in some cases presents either the initial thinking on the matter or a draft proposal. This document is approved by the EIC before public dissemination, including the date by which investors must provide feedback to MSCI.

A consultation begins in general with an announcement giving the highlights of the MSCI proposal(s) and indicating the location of the consultation document on MSCI's website. The announcement is widely distributed through multiple channels, including the MSCI website, Bloomberg, Reuters and directly to MSCI's clients. MSCI collects feedback from market participants in a variety of formats including but not limited to in person meetings, calls, mails, surveys, etc. as deemed appropriate.

MSCI welcomes feedback from any market participants but will also actively source views from its clients or other specific stakeholders (e.g., stock exchanges, market regulators and other regulatory agencies). It is important to MSCI that that feedback is obtained from the most appropriate market participants for any consultation topic. Exhibit 1 shows the types of index users that MSCI may specifically seek feedback from during a consultation. For example, a potential change in market classification of an MSCI Country Index requires information and views about feasibility, impact and design from representatives of all of these types, including small, medium and large benchmark users in each category. All regions are also important in this case as investors from different regions may face different challenges in investing in the assets of the country index in question. A short list of mandatory client feedback will be defined by the team leading the consultation and discussed with the relevant MSCI client coverage teams.

Exhibit 1: Sample Consultation Matrix for a Proposed Market Classification Change

Title	Asia	Europe	Americas
Asset Owners	✓	✓	✓
Consultants	✓	✓	✓
Active Asset Managers	✓	✓	✓
Passive Asset Managers	✓	✓	✓
Broker/Dealers	✓	✓	✓

Once MSCI has gathered all required feedback, the group in charge of the consultation will analyze the views and formulate an informed recommendation that will be presented to, discussed and debated at the EIC. The EIC will take the final decision on the proposal or escalate to the Index Policy Committee if required. The final decision, while considering all the feedback received, may weigh the feedback of some market participants, e.g., Asset Owners, Asset Managers (passive or active), Broker/Dealers, etc., more heavily, depending on the subject of the consultation.

The final decision, including the rationale that has led to it is communicated publicly to all market participants at the same time. If the decision does not fully reflect the view of the majority of the consultation participants, this is highlighted in the communication. Most consultation participants request that their feedback remain confidential. MSCI may nevertheless publicly disclose feedback if specifically requested by respective market participants. In that case, the relevant feedback would be published together with the final results of the consultation.

If the final decision is to change the methodology, it will be part of the announcement, including the timeframe for the implementation of the change. Subsequently, MSCI will update the relevant methodology books.

The length of a consultation and lead time provided for implementation varies depending on the complexity of the topic, breadth of client impact as well as impact on the index composition and is clearly communicated as part of the consultation process. The length of a consultation needs to be sufficient for market participants to meaningfully review what is proposed and respond.

In case of methodology changes that are not deemed as material, MSCI may make such changes without launching a public consultation. In such cases, once the methodology changes are approved by the EIC, they are announced by MSCI to all the market participants at the same time. MSCI takes into account prior feedback that may have been received on such topics, as part of its ongoing engagement with market participants. MSCI may also solicit views from its clients or other specific stakeholders on the consultation topic prior to making the changes.

For custom indexes, changes to any client specifications are discussed directly with the relevant client.

Note MSCI contacts clients on a regular basis to discuss general market practices.

Index Termination Policy

For over 40 years, MSCI has constructed international indexes for institutional investors. The MSCI indexes have evolved over time in an effort to continue to appropriately reflect the investable opportunity set of equities while addressing the changing and expanding investment interests of cross-border institutional investors.

Nonetheless, there may be certain circumstances where the methodology cannot be adapted in which case terminating the index may be required. These circumstances are generally not within MSCI's control and may include significant changes to the structure of underlying market, drastic changes to the market infrastructure, lack of access to necessary data, geo-political events, and regulatory changes. Additionally, factors such as methodology convergence or low usage may result in MSCI's proposal to terminate an index.

In all of these cases if an index termination is proposed or required, MSCI would proceed as follows:

- The EIC would review the impact and approve appropriateness of a potential termination. EIC may also choose to escalate an index termination to the IPC.
- MSCI may perform a consultation including a discussion of possible alternatives, if any.
- MSCI would announce any termination of the index in advance.

- If practicable, MSCI would continue to calculate the index for an announced period of time to give users the opportunity to transition to another index or otherwise prepare for the termination of the MSCI index.
- In the event that an appropriate alternative index is established, the details of the methodology governing this index as well as the timing of the transition would be publicly communicated in advance of implementation.

Indexes may also be discontinued if fewer than the required minimum number of securities are eligible for inclusion when applying a given methodology to a market. For example, this could happen in GIMI Large, Mid or Small Cap Indexes or indexes based on the GICS® segmentation. In these cases, the index can no longer be calculated in accordance with the applicable methodology and the index will simply stop. MSCI may resume calculation of such indexes if over time enough securities become eligible.

The termination of a custom index is handled in consultation with the relevant client.

Corrections Policy

In the case of data errors that occur in the determination or calculation of an index, if the impact of the error is ”not important”, no historical index restatement is made.

If the impact of the error on performance is “important”[3] at the index level, indexes are restated historically.

In certain circumstances, such as errors in the list of index constituents (e.g., a security is unintentionally omitted), or the error affects a large number of securities (e.g., a third of the prices in a particular market are in error) MSCI may also correct and restate history, even if the aggregate impact is not important.

MSCI applies a 12-month correction period for index errors. Errors discovered that are older than 12 months are generally not corrected.

Corrections related to regular index rebalancings or corporate events are assessed on a case by case basis. MSCI typically considers the following factors in determining the most appropriate corrective action: index investability and replicability as well as potential reverse turnover.

All corrections are announced simultaneously to all market participants.

Index Calculation and Discretion

The MSCI indexes are calculated using transacted security prices from stock exchanges or published indexes. MSCI does not use any bids, asks, or any estimations as alternatives to stock prices or substitutions for component indexes. The return of the indexes is determined in a number of currencies including USD and EUR.

The MSCI equity indexes rely on the continued availability of transacted security prices from stock exchanges. The MSCI blended indexes rely on the continued availability of component index levels.

[3]Currently the threshold for corrections is 50 basis points at the country or regional index level.

To the extent that any such data is temporarily or permanently unavailable (whether as a result of a market disruption event, permission for MSCI to use such data in determining its indexes or otherwise), the MSCI index methodologies apply the fall back measures described below.

In case of market closure or if a security does not trade on a specific day or a specific period, MSCI carries forward the latest available closing price to calculate its equity indexes. In case of market outage, MSCI will use the prices provided up to the point of the outage of that market for calculation of MSCI equity indexes on that day. In case of the unavailability of a component index level used in the calculation of an MSCI blended index, MSCI carries forward the latest available component index level to calculate its blended indexes.

If MSCI determines that another price or index level is more appropriate based on the circumstances, an announcement would be sent to clients with the related information. All such determinations are made by EIC.

MSCI's rules-based index methodologies, which cover index construction, maintenance and calculation, provide that discretion is not used in the production of the indexes except in unusual cases not effectively addressed by the methodology. These include, but may not be limited to:

- Corporate events not previously encountered or usually complex in nature,
- Structural changes to the underlying markets,
- Operational issues at stock exchanges,
- Geo-political events,
- Events beyond human control

Where there may be a need to take an action that is not prescribed in the methodology, senior members across the MSCI Index Research and Production will develop a proposed approach with the goal of remaining consistent with the spirit of the methodology and ensuring timely calculation and distribution. These proposals are reviewed by the EIC. In cases when time permits and the cases are deemed material, MSCI may consult with clients on the proposed approach. MSCI will then announce the decided action to all market participants at the same time.

Typically, MSCI does not perform explicit ex-post analysis of decisions but always welcomes feedback from market participants on decisions made.

The framework described above eliminates the exercise of discretion by an individual and ensures any required exercise of discretion is managed through escalation to committees of experts. All committees are governed to terms of reference and all decisions are appropriately documented and archived.

Notice on Index Usage

MSCI indexes may be used for a variety of purposes, including for research or use as the basis for index-linked investment products. They may be used by a variety of market participants, including but not limited to asset owners, portfolio managers, broker-dealers, researchers. Not all uses are appropriate for all users. Market participants should use their judgment when selecting an index for a particular purpose.

Indexes and the effectiveness of index methodologies can be affected by a number of factors, most of which are beyond MSCI's control. These may include structural changes to the underlying market, including decreases in the size and liquidity of the relevant market segment, infrastructure changes, geo-political events, and regulatory changes. These circumstances may result in a material change to the index and MSCI may elect to change the methodology as a result. In rare cases, these circumstances may result in the termination of an index. Index users should consider this possibility, including the potential need to terminate or modify the terms of a financial product or fund as the result of the termination of the calculation of the benchmark index.

MSCI assumes no responsibility for any potential use of its indexes by clients for a particular purpose, including as the basis for an index-linked financial product or investment fund. The effective representation of a market or strategy is the primary aim for MSCI.

<u>February 2018 updates</u>:

Consultation Policy

- clarification on the launch of methodology consultations

Index Termination Policy

- clarification on the role of the Index Equity Committee (EIC) in index termination decisions

<u>May 2018 updates</u>:

Consultation Policy

- clarification on the publication of consultation decisions and their rationale

<u>February 2019 updates</u>:

Index Termination Policy

- clarification on escalations to the IPC

<u>June 2019 updates</u>:

Methodology and Index Consultation Policy

- minor clarifications

<u>October 2019 updates</u>:

Methodology and Index Consultation Policy

- Update to the definition of material change
- Update on the treatment of non-material changes
- Update to the channels for gathering consultation feedback

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To learn more, please visit www.msci.com.

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