

# MSCI Japan Select Thematic Sentiment Rotation Index Methodology

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## 1 Introduction

The MSCI Japan Select Thematic Sentiment Rotation Index¹ (the 'Index') aims to represent the performance of the securities from the MSCI Japan IMI Index which belong, each quarter, to the four highest-ranked MSCI Thematic Indexes, as selected from a set of MSCI Thematic Indexes, based on a theme-specific media sentiment score (MediaStats Megatrend Scores) calculated for each of the respective themes by MKT MediaStats².

<sup>&</sup>lt;sup>1</sup> The Index is governed by a set of methodology and policy documents ("Methodology Set"), including the present index methodology document. Please refer to Appendix 1 for more details.

<sup>&</sup>lt;sup>2</sup> MKT MediaStats is a big-data information technology company specializing in financial markets which generates theme level Megatrend Scores on a monthly basis <a href="https://www.mktmediastats.com/">https://www.mktmediastats.com/</a>. Please refer to Appendix 2 for details.



#### 2 Index Construction

The Index is constructed from the MSCI ACWI IMI Index (the 'Parent Index'). The following steps are applied at initial construction and at each Index Review of the Index:

- Eligible Universe Screening
- Security Weighting

#### 2.1 Eligible Universe Screening

The Eligible Universe for the Index is constructed by combining the securities from a set of MSCI Thematic Indexes<sup>3</sup> (the 'Eligible Indexes') and subsequently applying the steps described in 2.1.1 and 2.1.2.

#### 2.1.1 Japan Thematic Subset Security Selection

For each of the respective Eligible Indexes, a corresponding Thematic Japan Subset ('Subset') is created by selecting only those securities that belong to the MSCI Japan IMI Index and that also have a 3-month ADTV (Average Daily Traded Value) greater than or equal to USD 10 Million.

ADTV is calculated as:

$$ADTV_{3M} = \frac{ATV_{3M}^4}{252}$$

where  $ATV_{3M}$  is the annualized 3-month Average Traded Value of the security.

To avoid multiple securities of the same company in the final Index, only the most liquid security for each issuer per its 3-month ADTV, is eligible for inclusion in the Subset.

#### 2.1.2 Subsets Selection

At each rebalance, only the Subsets that have a minimum of 10 securities are considered. These Subsets are then ranked in descending order of the MediaStats Megatrend Scores of the Eligible Index from which each Subset is constructed. The four Subsets with the highest MediaStats Megatrend Scores are selected and a weight of 25% is allocated to each of the selected Subsets.

The weight of each security after combining the four Subsets can be calculated as follows:

$$W_{Sec_i}^{CI} = \sum_j W_{C_j} W_{Sec_i}^{C_j}$$

Where:

 $W_{Sec_i}^{CI}$  is the weight of security  $Sec_i$  in the combined Subsets CI

MSCI Global Investable Market Indexes Methodology at https://www.msci.com/index-methodology

<sup>&</sup>lt;sup>3</sup> Please refer to Appendix 3 for details.

<sup>&</sup>lt;sup>4</sup> MSCI Index Calculation Methodology at https://www.msci.com/index-methodology



 $W_{C_i}$  is the target weight of the Subset  $C_i$ 

 $W_{Sec_i}^{C_j}$  is the weight of security  $Sec_i$  in the corresponding Subset  $C_j$ 

 $C_i$  is the selected Subset

# 2.2 Security Weighting

At each Index Review and at initial construction, the securities selected for inclusion in the Index are assigned the weights  $W_{Sec_i}^{CI}$  from the Section 2.1.2 and are then normalized to sum to 100%.

Additionally, the constituent weights are capped to mitigate concentration risk in the Index. The individual security weights in the final Index are capped at 5%.



# 3 Input Data Fallback Mechanism

If, at an Index Review, the MediaStats Megatrend Scores required for the Index rebalance are not available from MKT MediaStats, dated as of the month-end prior to the Index Review, then the latest available MediaStats Megatrend Scores prior to the Index Review date will be used.

If, at an Index Review, MSCI determines that the primary source data from MKT MediaStats is stale for the last 4 months or is not reflective of current market conditions, the Eligible Indexes then will be ranked in descending order of their 3-month price momentum score and the four highest ranked Eligible Index would be selected. In the case that two Eligible Indexes have same 3-month price momentum score, the index with higher 6-month price momentum score will be selected.

The 3-month price momentum score and 6-month price momentum score will be calculated as follows:

At each index review date, the 3-month price momentum score will be calculated by dividing the last 3-month price return of the individual Eligible Index as of Index review date by standard deviation of the daily price returns of the Eligible Index over the same period. The 6-month price momentum score will be calculated by dividing the last 6-month price return of the individual Eligible Index as of Index review date by standard deviation of the daily price returns of the index over the same period.

Subsequently, a review of alternative data for the MediaStats Megatrend Scores would be conducted. The adoption of an alternative data source and any amendments to the methodology to reflect such change will be handled in line with MSCI Index Consultation Policy<sup>5</sup>.

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<sup>&</sup>lt;sup>5</sup> Please refer to MSCI Index Policies document at: https://www.msci.com/index-methodology



### 4 Maintenance of the Index

# 4.1 Quarterly Index Reviews

The Index is reviewed on a quarterly basis. The rebalancing is generally effective as of the close of the last business day of February, May, August and November, coinciding with the regularly scheduled MSCI Index Reviews. The pro forma Index is announced nine business days before the effective date.

### 4.2 Ongoing Event Related Changes

The following section briefly describes the treatment of common corporate events within the Index. Changes in index market capitalization that occur because of corporate event implementation will be offset by a corresponding change in the Variable Weighting Factor (VWF) of the constituent.

No new securities will be added (except where noted below) to the Index between Index Reviews. For cases where additions are noted below, securities will be added to the Index only if added to the Parent Index. Parent Index deletions will be reflected simultaneously.

EVENT TYPE	EVENT DETAILS
New additions to the Parent Index	A new security added to the Parent Index (such as IPO and other early inclusions) will not be added to the Index.
Spin-Offs	All securities created as a result of the spin-off of an existing Index constituent will be added to the Index at the time of event implementation. Reevaluation for continued inclusion in the Index will occur at the subsequent Index Review.
Merger/Acquisition	For Mergers and Acquisitions, the acquirer's post event weight will account for the proportionate amount of shares involved in deal consideration, while cash proceeds will be invested across the Index.
	If an existing Index constituent is acquired by a non- Index constituent, the existing constituent will be deleted from the Index and the acquiring non- constituent will not be added to the Index.
Changes in Security Characteristics	A security will continue to be an Index constituent if there are changes in characteristics (country, sector, size segment, etc.) Reevaluation for continued inclusion in the Index will occur at the subsequent Index Review.



Further detail and illustration regarding specific treatment of corporate events relevant to this Index can be found in the MSCI Corporate Events Methodology book under the sections detailing the treatment of events in Capped Weighted and Non-Market Capitalization Weighted indexes.

The MSCI Corporate Events methodology book is available at: <a href="https://www.msci.com/index-methodology">https://www.msci.com/index-methodology</a>.



# **Appendix 1: Methodology Set**

The Index is governed by a set of methodology and policy documents ("Methodology Set"), including the present index methodology document as mentioned below:

- Description of methodology set <u>www.msci.com/index/methodology/latest/ReadMe</u>
- MSCI Corporate Events Methodology <a href="https://www.msci.com/index/methodology/latest/CE">www.msci.com/index/methodology/latest/CE</a>
- MSCI Index Calculation Methodology www.msci.com/index/methodology/latest/IndexCalc
- MSCI Index Glossary of Terms www.msci.com/index/methodology/latest/IndexGlossary
- MSCI Index Policies <u>www.msci.com/index/methodology/latest/IndexPolicy</u>
- MSCI Global Investable Market Indexes Methodology www.msci.com/index/methodology/latest/GIMI
- MSCI Excess Return Indexes Methodology <u>www.msci.com/index-methodology</u>

The Methodology Set for the Indexes can also be accessed from MSCI's webpage https://www.msci.com/index-methodology in the section 'Search Methodology by Index Name or Index Code'.



# **Appendix 2: MediaStats Megatrend Scores**

The MediaStats Megatrend Score is calculated by MKT MediaStats for each of the Eligible Indexes at the end of every calendar month.

For each Eligible Index, MKT MediaStats uses the business descriptions from each of the indexes methodology document to capture time series<sup>6</sup> and cross-sectional shifts of investor attention and sentiment towards megatrends by analyzing media articles sourced from approximately 100 thousand individual sources. The MediaStats Megatrend Score<sup>7</sup> is calculated based on an average positive sentiment intensity change over the most recent three months period compared to the preceding three months.

To remove outliers, the Mediastats Megatrend Score is winsorized at +/- 3 i.e. the scores above 3 are capped at 3 and scores below -3 are capped at -3. This score is then rounded to the first decimal. For the Subsets ranking in Section 2.1.2, in case two or more scores have the same rounded value, the ranks from the previous rebalancing are applied.

For further details on the calculation methodology, please refer to:

https://www.mktmediastats.com/post/dynamic-megatrend-rotation.

<sup>&</sup>lt;sup>6</sup> The business descriptions of some of the Thematic Indexes may overlap. For example, the descriptive terms of the MSCI ACWI IMI Robotics Index are also part of the descriptive terms for the MSCI ACWI IMI Autonomous Technology & Industrial Innovation Index. Consequently, a fraction of the articles covering these two themes are also shared. The overlap in articles can potentially lead to correlated MediaStats Megatrend Scores.

<sup>&</sup>lt;sup>7</sup>MediaStat Megatrend Scores may behave differently for broader themes that include narrower themes in comparison to separate narrow themes. The relative change in positive intensity for a broader theme that may cover more articles in general could be lower than for a narrow theme that may cover fewer articles. For instance, an absolute change of 1 article would be a 100% change for a theme that had 1 article in the previous period but only a 1% change for the theme that had 100 articles in the previous period.



# **Appendix 3: Eligible Indexes**

The Eligible Indexes list at launch comprises the following twenty-two MSCI Thematic Indexes8:

	Index Code	Index Name
1	727807	MSCI ACWI IMI Smart Cities
2	723025	MSCI ACWI IMI Efficient Energy
3	732041	MSCI ACWI IMI Next Generation Internet Innovation
4	732037	MSCI ACWI IMI Autonomous Technology and Industrial Innovation
5	731769	MSCI ACWI IMI Genomic Innovation
6	723011	MSCI ACWI IMI Robotics
7	727806	MSCI ACWI IMI Future Mobility
8	731771	MSCI ACWI IMI Fintech Innovation
9	737057	MSCI ACWI IMI Digital Health
10	734559	MSCI ACWI IMI Future Education
11	723013	MSCI ACWI IMI Ageing Society Opportunities
12	727804	MSCI ACWI IMI Millennials
13	747286	MSCI ACWI IMI Natural Resources Stewardship
14	747093	MSCI ACWI IMI Blockchain Economy
15	746832	MSCI ACWI IMI Clean Energy Infrastructure
16	723027	MSCI ACWI IMI Cybersecurity
17	737018	MSCI ACWI IMI Food Revolution
18	747122	MSCI ACWI IMI Plastics Transition
19	746884	MSCI ACWI IMI Renewables and Energy Efficiency
20	746885	MSCI ACWI IMI Sharing Economy
21	746738	MSCI ACWI IMI Space Exploration
22	747270	MSCI ACWI IMI Sustainable Water Transition

To help maintain the alignment of the Index with its objective over time, MSCI Thematic Indexes may be added to (or deleted from) the Eligible Indexes list based on the criteria including, but not limited to the length of index history, the security coverage of the index, the degree of differentiation of a given theme from the existing Eligible Indexes list, the narrowness of the theme, and the strength and stability of the corresponding MediaStats Megatrend Score. All additions and deletions will approved by the Equity index Committee based on alignment with these criteria and the index objective.

Any such change will be publicly announced 3 months prior to implementation at the nearest Quarterly Index Review<sup>9</sup>, in line with MSCI Index Consultation Policy. The Eligible Index list will be updated to reflect the change.

<sup>&</sup>lt;sup>8</sup> Please refer to https://www.msci.com/index-methodology for the methodology of the MSCI Thematic Indexes

<sup>&</sup>lt;sup>9</sup> MSCI may review the Eligible Indexes list from November 2026 Index Review and bi-annually thereafter



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https://www.msci.com/index-regulation.

<sup>\*</sup> toll-free



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