

# MSCI USA IMI Megatrend Sentiment Select Index Methodology

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# 1. Introduction

The MSCI USA IMI Megatrend Sentiment Select Index<sup>1</sup> (the 'Index') aims to represent the performance of the securities from the MSCI ACWI IMI Index (the 'Parent Index') which belong, each month, to the four highest-ranked MSCI Thematic Indexes, as selected from a set of MSCI Thematic Indexes<sup>2</sup>, based on a theme-specific media sentiment score (MediaStats Megatrend Scores) calculated for each of the respective themes by MKT MediaStats<sup>3</sup>.

<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>2</sup> Please refer to <a href="https://www.msci.com/our-solutions/indexes/thematic-investing">https://www.msci.com/our-solutions/indexes/thematic-investing</a> for more information about MSCI Thematic Indexes.

<sup>3</sup> MKT MediaStats is a big-data information technology company specializing in financial markets which generates theme level Megatrend Scores on a monthly basis <u>https://www.mktmediastats.com/</u>. Please refer to Appendix 2 for details.



# 2. Index Construction

The Index is constructed from the Parent Index. The following steps are applied at initial construction and at each Index Review of the Index:

- Applicable Universe
- Eligible Universe
- Security Weighting

## 2.1. Applicable Universe

The Applicable Universe for the Index is constructed by combining the securities from a set of MSCI Thematic Indexes<sup>4</sup> (the 'Eligible Indexes').

At each Index Review, the Eligible Indexes are subsequently ranked in descending order of the MediaStats Megatrend Scores of each Eligible Index. The four Eligible Indexes with the highest MediaStats Megatrend Scores are selected and allocated a weight of 25% to each of the selected Eligible Indexes<sup>5</sup>:

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

$$W_i = 0.25 \sum_{j=1}^4 \Omega_{ij},$$

where:

- $W_i$  is the weight of security *i* in the Applicable Universe index.
- $\Omega_{ij}$  is the weight of security *i* in the Eligible Index *j*.

### 2.2. Eligible Universe

#### 2.2.1. Country selection

The Eligible Universe for the Index includes the constituents of the Applicable Universe which are also part of MSCI USA IMI Index.

#### 2.2.2. Liquidity Criteria

Securities with 3-month ADTV (Average Daily Traded Value) greater or equal to USD 5 Million are eligible for inclusion in the Index.

ADTV is calculated as:

$$ADTV_{3M} = \frac{ATV_{3M}}{252},$$

<sup>4</sup> Please refer to Appendix 3 for details.

<sup>5</sup> A security can be part of multiple Eligible Indexes. In such a case, the security weights of each selected Eligible Index will be multiplied by their corresponding target weight and then added up.



where ATV<sub>3M</sub> is annualized 3-month Average Traded Value<sup>6</sup> 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. Should there be two securities with the same 3-month ADTV, the one with higher free-float adjusted market capitalization is ranked higher for selection.

#### 2.3. Security Weighting

At each Index Review and at initial construction, the securities selected for inclusion in the Index are assigned the weights  $W_i$  from the Section 2.1 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%. In case it is not feasible to cap the security weights at 5%, the capping will be relaxed in steps of 1%.

<sup>6</sup> MSCI Index Calculation Methodology at <u>www.msci.com/index/methodology/latest/IndexCalc</u> and MSCI Global Investable Market Indexes Methodology at <u>https://www.msci.com/index-methodology</u>.

# 3. Input Data Fallback Mechanism

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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 Indexes would be selected. In the case that two Eligible Indexes have same 3-month price momentum score, the Eligible 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 same period.

In addition, MSCI will conduct a review of alternative data sources to replace the MediaStats Megatrend Scores. The adoption of an alternative data source and any amendments to the methodology to reflect this will be announced to all clients simultaneously. MSCI may consult with clients to gather their feedback on the choice of alternative sources in line with MSCI Index Consultation Policy<sup>7</sup>.

<sup>7</sup> Please refer to MSCI Index Policies document at: <u>https://www.msci.com/index-methodology</u>.



# 4. Maintenance of the Index

#### 4.1. Monthly Index Reviews

The Index is reviewed on a monthly basis and rebalanced at the beginning of each month. 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: <u>https://www.msci.com/index-methodology.</u>

# Appendix 1: Methodology Set

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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 <u>www.msci.com/index/methodology/latest/CE</u>
- MSCI Index Calculation Methodology <u>www.msci.com/index/methodology/latest/IndexCalc</u>
- MSCI Index Glossary of Terms <u>www.msci.com/index/methodology/latest/IndexGlossary</u>
- 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

The Methodology Set for the Index can also be accessed from MSCI's webpage <u>https://www.msci.com/index-methodology</u> 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 MSCI Thematic index at the end of every calendar month.

For each MSCI Thematic index, MKT MediaStats uses the business descriptions<sup>8</sup> from each of the index methodology documents to capture time series<sup>9</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>10</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 Eligible Indexes ranking in Section 2.1 in case two or more scores have the same rounded value, the ranks from the previous rebalancing are applied<sup>11</sup>.

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

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

<sup>8</sup> Any update in MSCI Thematic Index business descriptions will be communicated to MKT MediaStats such that they can implement the changes at their end as soon as it is practicable. The updated MediaStats Megatrend Scores shall take effect at the end of the respective month following the acknowledgement of the receipt of the updated descriptions from MKT MediaStats.

<sup>9</sup> The business descriptions of some of the MSCI 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>10</sup> MediaStats 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.

<sup>11</sup> Some Index Reviews used their latest available non-winsorized and non-rounded MediaStats Megatrend Score as a tie-breaker due to the lack of access to the previous rebalancing. Such is the case of effective April 1<sup>st</sup> 2014, effective March 1<sup>st</sup> 2017 and effective August 1<sup>st</sup> 2024 Index Review.



# **Appendix 3: Eligible Indexes**

The Eligible Indexes list<sup>12</sup> comprises the following twenty-two MSCI Thematic Indexes<sup>13</sup>:

	Index Code	Index Name
1	723013	MSCI ACWI IMI Ageing Society Opportunities Index
2	732037	MSCI ACWI IMI Autonomous Technology & Industrial Innovation
3	737057	MSCI ACWI IMI Digital Health
4	723025	MSCI ACWI IMI Efficient Energy Index
5	731771	MSCI ACWI IMI Fintech Innovation
6	734559	MSCI ACWI IMI Future Education
7	727806	MSCI ACWI IMI Future Mobility
8	731769	MSCI ACWI IMI Genomic Innovation
9	727804	MSCI ACWI IMI Millennials
10	732041	MSCI ACWI IMI Next Generation Internet Innovation
11	723011	MSCI ACWI IMI Robotics
12	727807	MSCI ACWI IMI Smart Cities
13	747093	MSCI ACWI IMI Blockchain Economy
14	746832	MSCI ACWI IMI Clean Energy Infrastructure
15	723027	MSCI ACWI IMI Cybersecurity
16	737018	MSCI ACWI IMI Food Revolution Index
17	747286	MSCI ACWI IMI Natural Resources Stewardship
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

<sup>12</sup> The Eligible Indexes list may change should any of the MSCI Thematic Indexes cease to be calculated temporarily or are terminated in the future.

<sup>13</sup> Prior to March 2017, due to lack of relevant data, only the first twelve MSCI Thematic Indexes were used. Please refer to <a href="https://www.msci.com/index-methodology">https://www.msci.com/index-methodology</a> for the methodology of the MSCI Thematic Indexes.



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