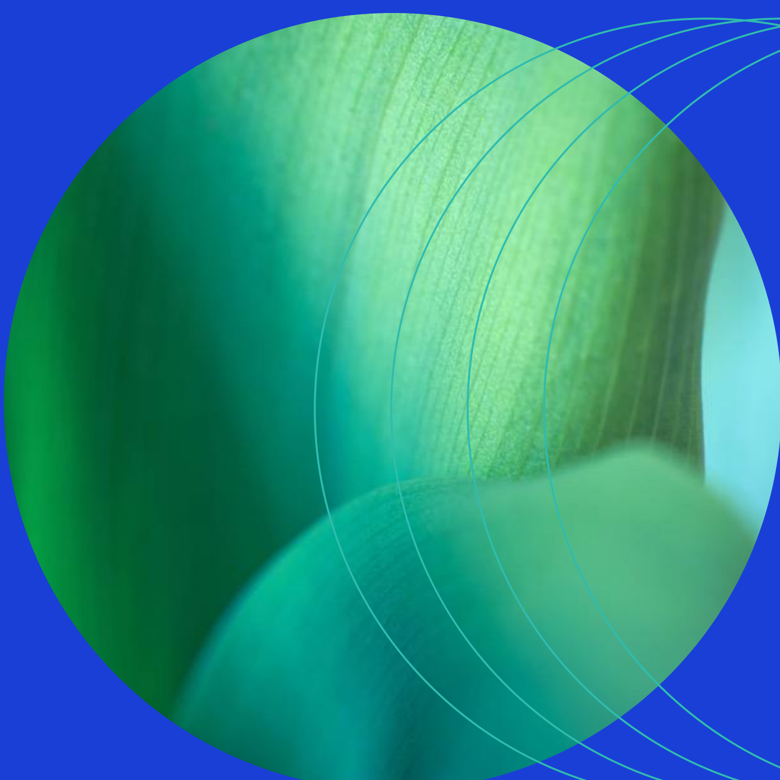
Index Methodology

July 2026

MSCI STRATEGY EXPOSURE CALCULATION METHODOLOGY



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1 Introduction

Thematic investing is a top-down investment approach which seeks to capitalize on potential opportunities created by a trend (or theme). Some trends reflect a short-term shift that temporarily disrupts normal economic or business activity, whereas others reflect persistent structural shifts that have a transformative impact on societies and economies. Climate transition, automation, AI adoption are some examples of long-term structural trends, whereas the global semiconductor shortage was an example of a short-term trend.

A thematic investment strategy seeks to identify a set of stocks that can be linked to a trend through their business activities. MSCI's Strategy Exposure (SE) is a revenue-based[1] metric of the economic link between a company and a trend.

SE is designed to identify a company's reported segments which may be associated with the specified thematic investment strategy. SE is calculated as an aggregate percentage of a company's revenue from any associated segment.

MSCI's Strategy Exposure may be used by investors via thematic indexes, or otherwise, to construct thematic portfolios and baskets by facilitating inclusion, exclusion and weighting decisions. Strategy Exposure may also enable investors to understand better how themes impact their portfolio's profile, complementing more traditional country, industry and factor lenses for analysis[2].

This document also describes the calculation methodology of MSCI's News Intensity (NI) metric. NI seeks to measure "attention" (association) to a thematic investing strategy based on company-related news. NI may also be used to represent a company's potential economic involvement with a thematic investing strategy.

In the following sections, we describe the calculation methodology and data used in the calculation of SE and NI.

2 Coverage Universe for Strategy Exposure

Strategy Exposure calculation covers following universes.

- All securities of the MSCI ACWI Investable Market Index (IMI) index.
- All securities of the MSCI China All Shares IMI index.
- All securities of MSCI ACWI IMI index and MSCI China All Shares IMI index

[1] Other data sources like operating income, assets, news, etc., can also be used for measuring the economic linkage between a company and a trend.

[2] An example of such analysis using the MSCI Relevance Score may be found here https://www.msci.com/www/blog-posts/a-thematic-lens-for-portfolios/02244244368

3 Data Requirements for Strategy Exposure

3.1 Trend (or Theme) Definition

A trend or theme ("Theme") definition includes following parameters –

3.1.1 Theme Description

A few sentences or a short paragraph describing the investment objectives of the Theme.

3.1.2 Components (or subthemes) of the Strategy

Components (or subthemes) represent smaller ideas or trends underlying the Theme. Each Component may be associated with a defined set of products, services, technologies, activities which are considered in-scope and out-of-scope for the component. It is written in natural language and is not an encyclopedic or exhaustive list.

- In Scope section: An outline of the products, services, technologies and/or business activities which would be considered "in scope" of the component and the Strategy.
- Out of Scope section: An outline of the products, services, technologies, concepts, and/or business activities which would be a poor fit to the specific idea of the Strategy or its Components.

3.1.3 Eligibility Criteria for Calculation Universe

The Strategy Exposure is calculated for securities included in the Calculation Universe. Securities of the Coverage Universe which meet all eligibility criteria are included in the Calculation Universe. These eligibility criteria could include filters like

- A specified parent index
- A set of GICS®[3] sectors
- Market capitalization and other stock level attributes
- Semantic Similarity[4]

The specific Theme Description, Components and Coverage Universe will be defined in the corresponding thematic index methodology document or other Strategy Exposure product overview.

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[3] GICS, the global industry classification standard jointly developed by MSCI Inc. and S&P Dow Jones Indices.

[4] Semantic similarity between a security and Theme is calculated as the cosine of the embeddings vectors of the security's issuer description and the specified Theme's description.

3.2 Company level data[5] used for assessing a company's thematic exposure

The following data is used at the issuer level:

- Business segment information from companies' annual reports and vendor data sources. This includes business segment names, business segment descriptions, business segment revenues, business segment income and business segment assets.
- A summary description of the companies' business activities from public sources expressed in English[6].

[5] In general, MSCI uses the latest available company business segment names, segment description, company description and fundamental data as of the SE calculation date.

[6] May include use of filings reports where available.

4 Calculating Strategy Exposure

4.1 Constructing the Calculation Universe

The calculation universe is constructed by selecting securities of the Coverage Universe which meet the eligibility criteria as described in the corresponding thematic index methodology document. Strategy Exposure is calculated only for securities included in the Calculation Universe.

4.2 Calculating the Strategy Exposure

4.2.1 Matching business segments with Components

Company reported business segments are assessed against the Components. This is done by comparing the business segment's description with the in-scope and out-of-scope definition of all Components included in the Theme definition. A match between a pair of business segment and a Component is identified with the help of a Large Language Model (LLM) in following steps[7] –

4.2.1.1 Checking Component's mention in Business Segment

All Components are assessed for a "mention" in a company's business segment by comparing each Component's in-scope description against the segment description for related meaning.

This step is repeated over several iterations. If, over a majority of those iterations, the assessment is positive then the pair of business segment and Component is assigned a "mentioned" status.

4.2.1.2 Confirming alignment between mentioned Components and a Business Segment

Each pair of business segment and Component with "mentioned" status is then re-assessed for alignment by comparing the meaning of the segment description against a choice of both in-scope and out-of-scope descriptions of the Component.

This step is repeated over several iterations and if, on majority of iterations, the segment description is assessed as more closely aligned with in-scope than out-of-scope, then the pair of business segment and Component is assigned a "matched" status.

4.2.2 Matched business segment

All business segments of the company which are assigned a "matched" status with at least one Component in step 4.2.1.2 are called "matched business segments".

In addition, a company's summary description may also be compared with the Components as per the steps described above.

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[7] More details on matching process using LLM can be found here

https://www.msci.com/research-and-insights/blog-post/leveraging-language-models-to-capture-investment-strategies

4.2.3 Calculating the Strategy Exposure

Company level Strategy Exposure is calculated as follows –

Strategy Exposure (SE) = [Revenue from matched business segments]/ Total company revenue.

In addition, an asset-based Strategy Exposure is calculated as follows:

Strategy Exposure Asset-Based (SEAB) = [Assets from matched business segments]/ Total Assets.

Both Strategy Exposure and Strategy Exposure Asset Based are floored at 0% and capped at 100%.

Individual thematic index portfolio analytics methodologies may specify further adjustments to the calculation of Strategy Exposure for matched securities to arrive at the final derived score used in that instance.

4.3 Ongoing Calculation of Strategy Exposure

4.3.1 Monthly Calculation

Both SE and SEAB are calculated on a monthly basis for all stocks in the Calculation Universe of a given theme, as of the close of the last business day of the month.

During the monthly calculation, company level SE and SEAB are calculated in following steps –

- All companies with non-zero SE as of the last monthly calculation which are included in the Coverage Universe are added to the Calculation Universe irrespective of their current eligibility.
- For each company in the Calculation Universe, the segment description of each business segment is compared against the segment description as of the last monthly calculation to check for any material change in text.
- Only segments where segment description has changed are matched with Components as per steps described above in section 4.2.1.

Company level SE and SEAB are calculated from matched segments as per the calculation described in section 4.2.3.

5 News Intensity

5.1 News Intensity Coverage Universe

The News Intensity Coverage Universe consists of all securities of the MSCI ACWI Investable Market Index (IMI).

5.2 Data Requirements for News Intensity

5.2.1 Trend (or Theme) Definition

A trend or theme ("Theme") definition includes following parameters –

5.2.1.1 Theme Description

A few sentences or a short paragraph describing the investment objectives of the Theme.

5.2.1.2 Components (or subthemes) of the Strategy

Components (or subthemes) represent smaller ideas or trends underlying the theme. Each Component may be associated with a defined set of products, services, technologies, activities which are considered in-scope and out-of-scope for the component. It is written in natural language and is not an encyclopedic or exhaustive list.

- In Scope section: An outline of the products, services, technologies and/or business activities which would be considered "in scope" of the component and the Strategy.
- Out of Scope section: An outline of the products, services, technologies, concepts, and/or business activities which would be a poor fit to the specific idea of the Strategy or its Components.

5.2.2 Issuer News Stories and News Summaries

Issuer News Stories are sourced from global business publications via an aggregated news feed. News articles from news feeds are processed to identify mentioned issuers, remove irrelevant stories and assess the sentiment (positive, neutral or negative) for each company and story[8]. Each Issuer News Story is assigned a Sentiment Score (+1,0, -1) based on its sentiment.

The same process also summarizes Issuer News Stories to create Issuer News Summaries. On any given date, Issuer News Stories are grouped by sentiments, and the process summarizes Issuer News Stories included in each group[9]. Since Issuer News Stories are grouped by sentiment, an issuer can have at most three Issuer News Summaries on a given date: one each for positive, neutral and negative. Each

[8] More details on issuer news story processing can be found here: https://www.msci.com/research-and-insights/paper/ai-portfolio-insights-and-the-future-of-risk-management

[9] The process writes summary for Issuer news stories categorized as "positive" and "negative". Issuer news stories categorized as "neutral" are joined together to create a summary for "neutral" category news.

Issuer News Summary corresponds to a single sentiment category (positive, neutral, or negative) and is assigned that category's Sentiment Score (+1, 0, or -1), so the Sentiment Score defined for Issuer News Stories applies to Issuer News Summaries in the same way.

5.3 News Intensity Calculation Universe

The News Intensity Calculation Universe is constructed each month in following steps:

- Monthly News Universe – Includes all Issuer News Summaries of all issuers in the News Intensity Coverage Universe.
- Monthly Calculation Universe – Includes top 10% of Issuer News Summaries from the Monthly News Universe which share the highest semantic similarity with the Theme Description.

5.4 Matched Issuer News Summary

Each Issuer News Summary in the News Intensity Calculation Universe is compared with the Components following the steps described in section 4.2.1[10]. An Issuer News Summary that is assigned a “matched” status with at least one Component is considered a “matched” Issuer News Summary.

5.5 Calculating the News Intensity

News Intensity is calculated in following steps:

- Lookback Window – To control flip/flops and reverse turnover, News Intensity is calculated using Issuer News Summaries over a longer period. Lookback Window is described in the corresponding thematic index methodology document.
- Issuer Total Summaries – Number of Issuer News Summaries over the Lookback Window.
- Issuer Total Matched Summaries – Number of Matched Issuer News Summaries in the Lookback Window.
- Issuer Total Matched Score = (Count of Matched Issuer News Summaries with Positive Sentiment + Count of Matched Issuer News Summaries with Neutral Sentiment) – (Count of Matched Issuer News Summaries with Negative Sentiment)
- Raw News Intensity = Issuer Total Matched Score / Issuer Total Summaries

[10] The matching steps described in section 4.2.1 are applied to Issuer news summaries with a single iteration, rather than the multiple iterations used for business segments.

- Scaling Factor – Raw News Intensity is impacted by low news coverage of the issuer in news feeds. To reduce the impact of low news coverage, Raw News Intensity is scaled down by a factor when Issuer Total Summaries are below the Country Median[11].

  Scaling Factor = min (1, Issuer Total Summaries / Country Median)

- News Intensity = Raw News Intensity × Scaling Factor

5.6 Ongoing Calculation of News Intensity

News Intensity is calculated on a monthly basis, as of the close of the last business day of the month. At each monthly calculation, the News Intensity Calculation Universe is reconstructed from the Issuer News Summaries of that month, as described in section 5.3, and each company's News Intensity is recomputed as described in section 5.5.

[11] The Country Median is the median of Issuer Total Summaries across all issuers of a given country in the News Intensity Coverage Universe. For the median calculation, only issuers with more than zero summaries over the Lookback Window are considered.

6 Corrections Policy

Any correction applied by MSCI to the underlying data used in the SE or NI calculation of a company would result in a recalculation of SE or NI of the impacted companies.

Appendix I: LLM Model used for matching business segments and News Summaries with Components

- Business segments and News Summaries are matched with Components in step 4.2.1 using OpenAI's GPT-4.1 model.[12]
- Embedding vectors are calculated using OpenAI's text-embedding-3-large model with 1024 dimensions.

[12] https://platform.openai.com/docs/models/gpt-4.1

Appendix II: New LLM Model

MSCI may replace the current LLM model with a newer release of the current model or with a completely new LLM model. Equally, MSCI may replace the embedding version with another from the same or an alternate provider. Any such model change will be announced prior to implementing the change.

Appendix III: Changes to this Document

The following sections have been modified as of July 2026:

- Section 5 has been added to describe the calculation methodology of News Intensity.
- Section 'Ongoing Calculation of Strategy Exposure' was moved to section 4.3.
- The text on model change has been clarified in Appendix II.

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