

MSCI Taiwan Leaders 50 Select Index Methodology

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1 Introduction

The MSCI Taiwan Leaders 50 Select Index (the 'Index') aims to represent the performance of a strategy that weights securities based upon the opportunities and risks associated with the transition to a lower carbon economy. The methodology uses the MSCI Low Carbon Transition¹ (LCT) score and category to reweight constituents of a parent index to increase its exposure to companies participating in opportunities associated with transition and decrease its exposure to companies exposed to risks associated with transition.

¹ Please refer to Appendix II: MSCI Low Carbon Transition Risk Assessment and <https://www.msci.com/climate-change-solutions> for further details regarding the MSCI Low Carbon Transition score and category

2 MSCI ESG Research

MSCI ESG Research provides in-depth research, ratings and analysis of the environmental, social and governance-related business practices of thousands of companies worldwide. It consists of an integrated suite of tools and products to efficiently manage research, analysis and compliance tasks across the spectrum of ESG factors.

The Index uses company ratings and research provided by MSCI ESG Research. In particular, this index uses the following MSCI ESG Research products: Low Carbon Transition Metrics and MSCI ESG Business Involvement Screening Research.

For details on MSCI ESG Research's full suite of ESG products, please refer to: <https://www.msci.com/esg-integration>

2.1 MSCI CLIMATE CHANGE METRICS

MSCI Climate Change Metrics is designed to support investors seeking to achieve a range of objectives, including measuring and reporting on climate risk exposure, implementing low carbon and fossil fuel-free strategies, and factoring Climate Change research into their risk management processes. It provides Carbon Emissions, Fossil Fuel exposure, environmental impact (i.e., clean technology) data and screens, as well as climate-related risk exposure and management assessment on companies.

For more details on Climate Change, please refer to <https://www.msci.com/climate-change-solutions>

2.2 MSCI ESG BUSINESS INVOLVEMENT SCREENING RESEARCH

MSCI ESG Business Involvement Screening Research (BISR) aims to enable institutional investors to manage environmental, social and governance (ESG) standards and restrictions reliably and efficiently.

For more details on MSCI ESG Business Involvement Screening Research, please refer to http://www.msci.com/resources/factsheets/MSCI_ESG_BISR.pdf

3 Index Construction Methodology

3.1 APPLICABLE UNIVERSE

The Applicable Universe includes all the existing constituents of MSCI Taiwan Index (“Parent Index”). This approach aims to provide an opportunity set with sufficient liquidity and capacity.

3.2 ELIGIBLE UNIVERSE

The Eligible Universe is constructed from the Applicable Universe by excluding securities based on the following criteria:

- Controversial Weapons - Companies involved in Controversial Weapons (i.e. cluster munitions, landmines, depleted uranium weapons, biological/chemical weapons, blinding lasers, non-detectable fragments and incendiary weapons), as defined by the methodology of the MSCI Ex-Controversial Weapons Indexes².
- Missing LCT Category/Score – Companies not rated by MSCI ESG Research for Low Carbon Transition Assessment.
- LCT Score Filter – Companies with low LCT Score are excluded in the following manner –
 - Securities are ranked in ascending order of their LCT Score such that the top ranked securities are the securities with the highest LCT Score
 - Securities identified in the bottom 20% by number of securities are identified as ‘Bottom 20% Stocks’
 - Securities which are in the ‘Bottom 20% Stocks’ and have an MSCI ESG Rating of CCC or B are excluded from the Eligible Universe

Additionally, securities in the index are required to have a positive Earnings per Share³ to be selected in the Eligible Universe.

² For details, please refer to MSCI Global ex Controversial Weapons Indexes Methodology at <https://www.msci.com/index-methodology>.

³ For more details on the fundamental data, please refer to the MSCI Fundamental Data Methodology (<https://www.msci.com/index-methodology>)

3.3 DETERMINATION OF COMBINED SCORE

Each company in the Eligible Universe is assigned a Combined Score, which is calculated using a company's LCT Category and its Low Carbon Transition Score as outlined below.

3.3.1 CATEGORY TILT SCORE

The 'Category Tilt Score' is used to express relative tilt towards or away from a stock based on the LCT Category. Based on the LCT Category of a company, a Category Tilt Score is assigned based on the table below:

LCT Category	Category Tilt Score
Solutions	1.25
Neutral	1.00
Operational Transition	0.75
Product Transition	0.50
Asset Stranding	0.25

3.3.2 INDUSTRY TILT SCORE

The 'Industry Tilt Score' differentiates companies within a Global Industry Classification Standard (GICS⁴) sector. Companies with higher LCT Score are relatively better at managing their climate related risk compared to their peers with worse LCT Score.

The Industry Tilt Score is calculated by normalizing security level LCT score relative to the minimum⁵ LCT Score of the GICS Sector within the Parent Index. The 'Industry Tilt Score' is capped between 1 and 2 to balance its effect on the final weight of index constituents

$$\text{Industry Tilt Score} = \frac{\text{LCT Score}}{\text{Minimum LCT Score in GICS Sector}}$$

3.3.3 COMBINED SCORE

The Combined Score is calculated for each company as follows:

Combined Score = Category Tilt Score * Industry Tilt Score.

⁴ To For further information regarding GICS, please refer to <https://www.msci.com/gics>

⁵ To account for potential outliers within each GICS Sector, the category minimum LCT Score is calculated after winsorizing the security level LCT Score at 10th percentile of the GICS Sector.

3.4 WEIGHTING SCHEME

At each rebalancing, the Tilted Weight for all the securities from the Eligible Universe is calculated as the product of their weight in the Parent Index and the Combined Score.

$$\textit{Tilted Weight} = \textit{Combined Score} * \textit{Weight in Parent Index}$$

Securities in the Eligible Universe are then ranked in descending order of their Tilted Weight, such that the top ranked securities are those with the highest Tilted Weight. The top 50 securities are then selected based on the ranking defined above and weighted in proportion of their Tilted Weight. The security weights are then normalized to 100%.

Additionally, constituent weights are capped at the issuer level to mitigate concentration risk:

1. The weight of the largest issuer will be capped at 30%
2. The cumulative weight of the largest five issuers will be capped at 65%

Note that the capping of the issuer weight is done for the pro forma index as of the effective date, based on the closing prices as of the index review announcement date. In cases where the issuer weight breaches the cap because of market price movements or corporate events between the announcement date and the effective date, the capping is not applied again. Similarly, even if any issuer weight breaches the cap because of market price movements or corporate events between two Semi-Annual Index Reviews, no capping is applied.

4 Maintaining the MSCI Taiwan Leaders 50 Select Index

4.1 SEMI-ANNUAL INDEX REVIEWS

The Index is rebalanced on a semi-annual basis, as of the close of the last business day of May and November, coinciding with the May and November Semi-Annual Index Review of the MSCI Global Investable Market Indexes. The pro forma Indexes are in general announced nine business days before the effective date.

In general, MSCI uses MSCI ESG Research data (including Low Carbon Transition Metrics and MSCI Business Involvement Screening Research) as of the end of the month preceding the Index Reviews for the rebalancing of MSCI Taiwan Leaders 50 Select Index.

4.2 ONGOING EVENT RELATED CHANGES

The general treatment of corporate events in the MSCI Taiwan Leaders 50 Select Index aims to minimize turnover outside of Index Reviews. The methodology aims to appropriately represent an investor's participation in an event based on relevant deal terms and pre-event weighting of the index constituents that are involved. Further, changes in index market capitalization that occur as a result of corporate event implementation will be offset by a corresponding change in the Variable Weighting Factor (VWF) of the constituent.

Additionally, if the frequency of Index Reviews in the Parent Index is greater than the frequency of Index Reviews in the MSCI Taiwan Leaders 50 Select Index, the changes made to the Parent Index during intermediate Index Reviews will be neutralized in the MSCI Taiwan Leaders 50 Select Index.

The following section briefly describes the treatment of common corporate events within the MSCI Taiwan Leaders 50 Select Index.

No new securities will be added (except where noted below) to the Index between Index Reviews. 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:

<https://www.msci.com/index-methodology>

Appendix I: Companies Involved in Controversial Weapons Business

Companies which meet the following Controversial Weapons criteria are excluded from the Index

- **Cluster Bombs**
MSCI ESG Research's cluster bomb research identifies public companies that are involved in the production of cluster bombs and munitions, or the essential components of these products.
- **Landmines**
MSCI ESG Research's landmines research identifies public companies that are involved in the production of anti - personnel landmines, anti - vehicle landmines, or the essential components of these products.
- **Depleted Uranium Weapons**
MSCI ESG Research's depleted uranium weapons research identifies public companies involved in the production of depleted uranium weapons and armor.
- **Chemical and Biological Weapons**
MSCI ESG Research's chemical and biological weapons research identifies public companies that are involved in the production of chemical and biological weapons, or the essential components of these products.
- **Blinding Laser Weapons**
MSCI ESG Research's blinding laser weapons research identifies public companies that are involved in the production of weapons utilizing laser technology to cause permanent blindness.
- **Non-Detectable Fragments**
MSCI ESG Research's non-detectable fragments research identifies public companies that are involved in the production of weapons that use non-detectable fragments to inflict injury.
- **Incendiary Weapons (White Phosphorus)**
MSCI ESG Research's incendiary weapons research identifies companies that are involved in the production of weapons using white phosphorus.

Involvement criteria:

- Producers of the weapons
- Producers of key components of the weapons (only applies to cluster bombs, landmines, depleted uranium weapons as well as chemical and biological weapons)
- Ownership of 20% or more of a weapons or components producer
- The minimum limit is raised to 50% for financial companies having an ownership in a company that manufactures controversial weapons or key components of controversial weapons
- Owned 50% or more by a company involved in weapons or components production

Revenue limits:

Any identifiable revenues, i.e., zero tolerance

The exclusion criteria above are reflective of the MSCI Global ex Controversial Weapons Index Methodology as of Nov 2021⁶.

⁶

https://www.msci.com/eqb/methodology/meth_docs/MSCI_Global_ex_Controversial_Weapons_Indexes_Methodology_May2018.pdf

MSCI ESG Research's Low Carbon Transition Risk assessment⁷ is designed to identify potential leaders and laggards by holistically measuring companies' exposure to and management of risks and opportunities related to the low carbon transition.

The final output of this assessment is two company-level factors as described below:

- (1) **Low Carbon Transition Category:** This factor groups companies in five categories that highlight the predominant risks and opportunities they are most likely to face in the transition (Exhibit 1).
- (2) **Low Carbon Transition Score:** This score is based on a multi-dimensional risks and opportunities assessment and considers both predominant and secondary risks a company faces. It is industry agnostic and represents an absolute assessment of a company's position vis-à-vis the transition.

LOW CARBON TRANSITION SCORE	LOW CARBON TRANSITION CATEGORY		LOW CARBON TRANSITION RISK / OPPORTUNITY	
Score = 0	ASSET STRANDING		Potential to experience “stranding” of physical / natural assets due to regulatory, market, or technological forces arising from low carbon transition.	Coal mining & coal based power generation; Oil sands exploration/production
	TRANSITION	PRODUCT	Reduced demand for carbon-intensive products and services. Leaders and laggards are defined by the ability to shift product portfolio to low-carbon products.	Oil & gas exploration & production; Petrol/diesel based automobile manufacturers, thermal power plant turbine manufacturers etc.
		OPERATIONAL	Increased operational and/or capital cost due to carbon taxes and/or investment in carbon emission mitigation measures leading to lower profitability of the companies.	Fossil fuel based power generation, cement, steel etc.
	NEUTRAL		Limited exposure to low carbon transition carbon risk. Though companies in this category could have exposure to physical risk and/or indirect exposure to low carbon transition risk via lending, investment etc.	Consumer staples, healthcare, etc.
	SOLUTIONS		Potential to benefit through the growth of low-carbon products and services.	Renewable electricity, electric vehicles, solar cell manufacturers etc.
Score = 10				

Exhibit 1: Low Carbon Transition Categories and Scores

⁷ For more details on MSCI Climate Change Metrics, please refer to <https://www.msci.com/climate-change-solutions>

Calculation methodology

The Low Carbon Transition Categories and Scores are determined by a combination of each company's current risk exposure and its efforts to manage the risks and opportunities presented by the low carbon transition. The 3-step process followed by MSCI ESG Research is explained below.

Step 1: Measure Low Carbon Transition Risk Exposure

The first step towards measuring the Low Carbon Transition Risk Exposure for a company is the computation of its Carbon Intensity profile – which is informed by its Product Carbon Intensity, Operational Carbon Intensity and Total Carbon Intensity. In the next step, we compute Low Carbon Transition Risk Exposure Category and Score based on Total Carbon Intensity.

Step 2: Assess Low Carbon Transition Risk Management

In the second step, we assess a company's management of risks and opportunities presented by the low carbon transition. This assessment is based on policies and commitments to mitigate transition risk, governance structures, risk management programs and initiatives, targets and performance, and involvement in any controversies.

Step 3: Calculate Low Carbon Transition Category and Score

In the final step, the Low Carbon Transition Risk Exposure Category and Score that was calculated in Step 1 are adjusted for the strength of management efforts. Following this adjustment, Low Carbon Transition Risk Exposure Score of companies with top or second quartile risk management improves and some top and second quartile companies may move up one category.

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