Index Methodology



MSCI USA ESG LEADERS MOMENTUM TOP 50 SELECT INDEX METHODOLOGY

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1 Introduction

The MSCI USA ESG Leaders Momentum Top 50 Select Index (the 'Index') aims to represent the performance of a Momentum strategy applied on the MSCI USA ESG Leaders Index (the "Parent Index"). The Index is constructed by selecting 50 securities from the Parent Index with the highest Momentum Scores¹. The index also manages concentration risk by capping exposure to each of the GICS² sectors.

¹ The momentum scores are defined in the same way as in the MSCI Momentum Indexes, except for not applying riskadjustments to the momentum value.

² GICS, the global industry classification standard jointly developed by MSCI Inc. and S&P Global. For more details please refer to <u>https://www.msci.com/gics</u>



2 Index Construction

2.1 DEFINING THE PARENT INDEX

The Parent Index for the MSCI USA ESG Leaders Momentum Top 50 Select Index is the MSCI USA ESG Leaders Index (the "Parent Index").

2.2 SECURITY SELECTION

2.2.1 DETERMINATION OF MOMENTUM SCORE

The Momentum value for each security is calculated using the combination of 6month and 12-month local price performance of the security.

6-month Price Momentum = ((PT-1 /PT-7)-1) – (Local Risk-free rate)) 12-month Price Momentum = ((PT-1 /PT-13)-1) – (Local Risk-free rate))

Where,

PT-1 = Security Local Price one month prior to the rebalancing date (T)

PT-7 = Security Local Price seven months prior to the rebalancing date (T)

PT-13 = Security Local Price thirteen months prior to the rebalancing date (T)

The price performance is computed excluding recent 1-month. If 12-month Price Momentum is missing, only 6-month Price Momentum is used for computation of Momentum value. Momentum value is not computed if 6-month Price Momentum is not available. In the absence of Momentum value, security is not considered for inclusion in the Index.

The risk-free rate used is the 3-month T-Bill rate.

Price Momentum (for the 6-month horizon and 12-month horizon) computed above are standardized into z-scores. The z-scores are combined in equal proportion to arrive at a single Momentum combined score (C).

C = 6-month Momentum Z-score*0.5 + 12-month Momentum Z-score*0.5



The single Momentum combined score(C) computed above is then standardized by calculating the z-scores to compute the standardized momentum Z-score(Z). Momentum Zscore is then winsorized at +/-3 i.e. the Z-scores above 3 are capped at 3 and Z-scores below -3 are capped at -3.

The Momentum Score is then computed from the Momentum Z-Score as follows:

$$Momentum \ Score = \begin{cases} 1+Z, & Z>0\\ (1-Z)^{-1}, & Z<0 \end{cases}$$

2.2.2 SELECTING CONSTITUENT SECURITIES

At each index review the following steps are applied to the Parent Index constituents to select 50 securities for inclusion in the index.

• Step 1

All the existing constituents of the Parent Index are ranked in the descending order of their unwinsorized Momentum Z-score. If multiple securities have the same unwinsorized Momentum Z-score, then the security having a higher weight in the Parent Index is given a higher rank.

To ensure a limited exposure to the Energy and Utility securities, all the securities from above are divided into three sub universes, namely "Energy Universe", "Utilities Universe" and "Ex-Energy and Utilities Universe", defined as follows:

- Energy Universe: It includes all the securities that belong to Energy GICS Sector from the Parent Index
- Utilities Universe: It includes all the securities that belong to Utilities GICS Sector from the Parent Index
- Ex-Energy and Utilities Universe: It includes all the securities that belong to the Parent Index except for the securities from the Energy and Utilities GICS Sector
- Step 2

The top 2 securities from each of the "Energy Universe" and the "Utilities Universe" are selected

• Step 3

The securities from Step 2 are combined with the "Ex-Energy and Utilities Universe".

• Step 4



For the initial review, the top 50 securities from Step 3 are selected. For the subsequent reviews, the top 50 securities from Step 3 are selected in accordance with the buffer rules described in 3.1.1.

2.3 WEIGHTING SCHEME

All eligible securities are weighted by the product of their market capitalization weight in the MSCI USA ESG Leaders Index and their corresponding Momentum Score.

Momentum Weight = Momentum Score * Market Capitalization Weight

These momentum weights are then normalized to 100.

2.3.1 SECTOR AND ISSUER CAPPING

To avoid concentration, exposure to each GICS sector in the index is capped at 50%, while each issuer is capped at 5%, in accordance with the MSCI Capped Indexes Methodology³. The excess weight due to sector capping is allocated to the other sectors in proportion to their weight prior to such capping. The excess weight due to issuer capping is allocated to other issuers within the same sector in proportion to their weight prior to the sector in proportion to their sectors in proportion to the sector sector sector in proportion to the sector sector sector sector in proportion to the sector sector

³ Please refer to the MSCI Capped Indexes methodology at <u>www.msci.com/index-methodology</u>



3 Maintenance of the Index

3.1 QUARTERLY INDEX REVIEWS

The MSCI USA ESG Leaders Momentum Top 50 Select Index is reviewed on a quarterly basis to coincide with the regular Semi-Annual and Quarterly Index Reviews of the MSCI Global Investable Market Indexes. The changes are implemented as of the close of the last business day of February, May, August and November. The pro forma Index is in general announced nine business days before the effective date.

3.1.1 BUFFER RULES

To reduce Index turnover and enhance Index stability, buffer rules are applied at 50% of the number of securities selected.

The Index targets 50 securities and the buffers are applied between rank 26 and 75. The securities from Step 3 in 2.2.2 with a Momentum Rank at or above 25 will be added to the Index on a priority basis. Existing constituents that have a Momentum rank between 26 and 75 are then successively added until the number of securities in the Index reaches 50. If the number of securities is below 50 after this step, the remaining securities from Step 3 in 2.2.2 with the highest Momentum rank are added until the number of securities in the Index reaches 50.

3.2 ONGOING EVENT RELATED CHANGES

The general treatment of corporate events in the MSCI USA ESG Leaders Momentum Top 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.

The following section briefly describes the treatment of common corporate events within the MSCI Momentum Indexes.

No new securities will be added (except where noted below) to the Index between Index Reviews. Only the securities added to the Parent Index at the time of event are eligible for addition to the 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.
	For Mergers and Acquisitions, 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.

The MSCI Corporate Events methodology book is available at: https://www.msci.com/index-methodology



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