

**Methodology Book:**  
**- MSCI World Islamic ESG Select Index**  
**- MSCI World Islamic ESG Select 8%**  
**Risk Control Index**

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## 1 Introduction

The MSCI World Islamic ESG Select Index (the 'Index') aims to represent the performance of 200 securities from the MSCI World Islamic M-Series Index (the 'Parent Index') with a robust ESG profile and large free-float adjusted market capitalization<sup>1</sup>.

The MSCI World Islamic ESG Select 8% Risk Control Index aims to represent the performance of the MSCI World Islamic ESG Select Index while targeting an annualized volatility of 8%.

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<sup>1</sup> The Indexes are governed by a set of methodology and policy documents ("Methodology Set"), including the present index methodology document. The Methodology Set for the Indexes can be accessed from MSCI's webpage <https://www.msci.com/index-methodology> in the section 'Search Methodology by Index Name or Index Code'.

The Methodology Set includes a document 'ESG Factors in Methodology' that contains the list of environmental, social, and governance factors considered, and how they are applied in the methodology (e.g., selection, weighting or exclusion).

## 2 Index Construction

The Index is constructed<sup>2</sup> from the Parent Index. The following steps are applied at initial construction and at each Index Review of the Index:

- Eligible Universe Screening
- Security Selection
- Security Weighting

### 2.1 Eligible Universe Screening

#### 2.1.1 Liquidity Criteria

Securities with 3-month ADTV (Average Daily Traded Value) greater than or equal to USD 10 Million are eligible for inclusion in the Index.

ADTV is calculated as:

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

where  $ATV_{3M}$  is 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 Index.

#### 2.1.2 Controversial Business Involvement Criteria

The Index uses MSCI ESG Business Involvement Screening Research and MSCI Climate Change Metrics to identify companies that are involved in the following business activities. Companies that meet the below values- and climate change-based criteria are excluded from the eligible universe. Please refer to Appendix 1 for details on these criteria.

- Compliance with all the UN Global Compact Principles
- Controversial Weapons
- Conventional Weapons
- Nuclear Weapons
- Civilian Firearms
- Tobacco
- Oil Sands

<sup>2</sup> See section 5 for further information regarding ESG and climate data used in the Indexes that MSCI Limited sources from MSCI ESG Research LLC, a separate subsidiary of MSCI Inc. MSCI ESG Research is solely responsible for the creation, determination and management of such data. MSCI Limited is the benchmark administrator for the MSCI indexes.

<sup>3</sup> Please refer to MSCI Index Calculation Methodology at <https://www.msci.com/index-methodology> for more details on ATV calculation

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

- Thermal Coal
- Oil & Gas

## 2.2 Security Selection

From the securities in the eligible universe that meet above screening criteria, the top 50% securities based on their industry-adjusted ESG score are selected for inclusion in the Index. Should there be two securities with the same industry-adjusted ESG score, the one with higher liquidity per its 3-month ATV is ranked higher for selection.

Additionally, the largest 200 securities based on their free-float adjusted market capitalization are selected for inclusion in the Index. Should there be two securities with the same free-float adjusted market capitalization, the one with higher liquidity per its 3-month ATV is ranked higher for selection. In case there are less than 200 remaining for selection, all the remaining securities will be selected in the Index.

## 2.3 Security Weighting

At each Index Review and at initial construction, the securities selected for inclusion in the Index are weighted by the product of their free-float adjusted market capitalization and the industry-adjusted ESG score.

$$\text{Weight} = (\text{Free Float Adjusted Market Capitalization}) * (\text{Industry Adjusted ESG Score})$$

The above weights are then normalized to 100%.

Additionally, the constituent weights are capped to mitigate concentration risk in the Index. The individual security weights in the Index are capped at 8%. In case it is not feasible to cap the security weights at 8%, the capping will be relaxed to 10% in steps of 1%.

Subsequently, the minimum values are selected as adjusted weights as follows:

$$W_i^{adj} = \min\left(W_i, 0.25 \frac{ADTV_i^{1M}}{USD\ 1bn}\right),$$

where:

$W_i$  is the weight after applying the capping at 8%

$ADTV_i^{1M}$  is the 1-month Average Daily Traded Value of the security.

Finally, the weights  $W_i^{adj}$  are normalized to sum to 100%.

### 3 Constructing the MSCI World Islamic ESG Select 8% Risk Control Index

The MSCI World Islamic ESG Select 8% Risk Control Index is constructed by applying the following steps to the MSCI World Islamic ESG Select Index:

- Applying the MSCI Excess Return Indexes methodology
- Constructing the Volatility Target Index

#### 3.1 Applying the MSCI Excess Return Indexes Methodology

The MSCI Excess Return Indexes Methodology<sup>4</sup> is applied on the Standard Daily Net Return variant of the MSCI World Islamic ESG Select Index in USD currency to construct the Excess Return Variant Index<sup>5</sup>.

#### 3.2 Constructing the Volatility Target Index

The objective of the Volatility Target Index is to replicate the performance of a strategy that targets 8% of volatility by adjusting the weight of the Excess Return Variant Index calculated in 3.1.

The Volatility Target Index is calculated in accordance with the below formula:

$$IL_t = IL_{t-1}(1 + IR_t),$$

where:

$IL_t$  is the Volatility Target Index levels on calculation day<sup>6</sup>  $t$

$IR_t$  is the Volatility Target Index return on calculation day  $t$ , calculated in accordance with the following formula:

$$IR_t = W_t E_t - IndexFee \frac{ACT(t-1, t)}{360},$$

where:

$$E_t = \frac{Excess\ Return\ Variant\ Index_t}{Excess\ Return\ Variant\ Index_{t-1}} - 1$$

$$IndexFee = 0.60\%$$

$$ACT(t-1, t) = \text{Number of actual calendar days between calculation day } t-1 \text{ and } t$$

<sup>4</sup> Please refer to the MSCI Excess Return Indexes methodology at [www.msci.com/index-methodology](http://www.msci.com/index-methodology)

<sup>5</sup> The short-term rate used for the application of the Excess Return Indexes methodology is Fed Fund overnight until December 31<sup>st</sup> 2018, and SOFR overnight from January 1<sup>st</sup> 2019.

<sup>6</sup> All trading days except full holidays in New York Stock Exchange, London Stock Exchange, Deutsche Börse Xetra, Tokyo Stock Exchange, SIX Swiss Exchange, Toronto Stock Exchange or Euronext Amsterdam.

$$W_t = \begin{cases} W_{t-1}, & \text{ABS}\left(\frac{W_{t^*} - W_{t-1}}{W_{t-1}}\right) \leq 5\% \\ W_{t^*}, & \text{ABS}\left(\frac{W_{t^*} - W_{t-1}}{W_{t-1}}\right) > 5\%, \end{cases}$$

where:

$$W_{t^*} = \min\left(1.5, \frac{\text{TargetRiskLevel}}{\sigma_t}\right),$$

where:

*TargetRiskLevel* = 8%

$\sigma_t$  = Volatility<sup>7</sup> of the Excess Return Variant Index

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<sup>7</sup> Please refer to the Appendix 2 for details

## 4 Maintenance of the Index

### 4.1 Quarterly Index Reviews

The Index is reviewed on a quarterly basis, coinciding with the February, May, August, and November Index Reviews of the Parent Index. The pro forma Index is typically announced nine business days before the effective date.

The MSCI World Islamic ESG Select 8% Risk Control Index is reviewed on a daily basis as per steps described in Section 3.

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

## 5 MSCI ESG Research

The Index is a product of MSCI Inc. that utilize information such as company ratings and research produced and provided by MSCI ESG Research LLC (MSCI ESG Research), a subsidiary of MSCI Inc. In particular, the Index uses the following MSCI ESG Research products: MSCI ESG Ratings, MSCI Business Involvement Screening Research and MSCI Climate Change Metrics. MSCI Indexes are administered by MSCI Limited.

### 5.1 MSCI ESG Ratings

MSCI ESG Ratings aim to measure entities' management of environmental, social and governance risks and opportunities. MSCI ESG Ratings use a weighted average key issue calculation that is normalized by industry to arrive at an industry-adjusted ESG score (0-10), which is then translated to a seven-point scale from 'AAA' to 'CCC', indicating how an entity manages relevant key issues relative to industry peers.

The MSCI ESG Ratings methodology can be found at: <https://www.msci.com/esg-and-climate-methodologies>.

### 5.2 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](http://www.msci.com/resources/factsheets/MSCI_ESG_BISR.pdf).

### 5.3 MSCI Climate Change Metrics

MSCI Climate Change Metrics provides climate data & tools to support investors integrating climate risk & opportunities into their investment strategy and processes. It supports investors seeking to achieve a range of objectives, including measuring and reporting on climate risk exposure, implementing low carbon and fossil fuel-free strategies, align with temperature pathways and factoring climate change research into their risk management processes, in particular through climate scenario analysis for both transition and physical risks.

The dataset spans across the four dimensions of a climate strategy: transition risks, green opportunities, physical risks and 1.5° alignment.

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

## Appendix 1: Values- and Climate Change-Based Exclusion Criteria

The MSCI World Islamic ESG Select Index is constructed with an aim to reflect the performance of companies that are consistent with specific values- and climate change-based criteria.

### Compliance with all the UN Global Compact Principles

- All companies that comply with the United Nations Global Compact principles are selected. In this filter, activities are not classified under any specific tolerance level.

### Values-based Exclusions Criteria

- **Controversial Weapons**
  - All companies with any tie to Controversial Weapons (cluster munitions, landmines, depleted uranium weapons, biological/chemical weapons, blinding lasers, non-detectable fragments and incendiary weapons) according to MSCI Ex-Controversial Weapons Indexes are excluded.
  - All companies deriving 10% or more revenue from the manufacture of chemical or biological weapons and related systems or components are excluded.
- **Conventional Weapons**
  - All companies deriving any revenue from the production of conventional weapons.
  - All companies deriving any revenue from the weapons systems, components, and support systems and services.
- **Nuclear Weapons**
  - All companies that manufacture nuclear warheads and/or whole nuclear missiles.
  - All companies that manufacture components that were developed or are significantly modified for exclusive use in nuclear weapons (warheads and missiles).
  - All companies that manufacture or assemble delivery platforms that were developed or significantly modified for the exclusive delivery of nuclear weapons.
  - All companies that provide auxiliary services related to nuclear weapons.
  - All companies that manufacture components that were not developed or not significantly modified for exclusive use in nuclear weapons (warheads and missiles).
  - All companies that manufacture or assemble delivery platforms that were not developed or not significantly modified for the exclusive delivery of nuclear weapons.
  - All companies that manufacture components for nuclear-exclusive delivery platforms.
  - All companies deriving 10% or more revenue from the production of nuclear weapons.
- **Civilian Firearms**
  - All companies that manufacture firearms and small arms ammunitions for civilian markets. It does not cover companies that cater to the military, government, and law enforcement markets.

- All companies deriving 5% or more revenue from manufacturing firearms and small arms ammunition for civilian markets.
- All companies deriving any revenue from the distribution (wholesale or retail) of firearms or small ammunition intended for civilian use.
- **Tobacco**
  - All companies classified as a “Producer”.
  - All companies deriving any revenue from the distribution of tobacco products.
  - All companies deriving 5% or more revenue from the manufacture of tobacco products.
  - All companies deriving 5% or more revenue from retail sales of tobacco products.
  - All companies deriving 5% or more revenue from supplying products essential to the tobacco industry.
  - All companies deriving 5% or more revenue from the licensing of its brand name to tobacco products.
- **Oil sands**
  - All companies deriving any revenue from oil sands extraction are excluded.

## Climate Change-based Exclusions Criteria

- **Thermal Coal Mining**
  - All companies deriving any revenue from the mining of thermal coal are excluded.
- **Oil & Gas**
  - All companies deriving any revenue (either reported or estimated) from unconventional oil and gas. It includes revenue from oil sands, oil shale (kerogen-rich deposits), shale gas, shale oil, coal seam gas, and coal bed methane. It excludes all types of conventional oil and gas production including Arctic onshore/offshore, deepwater, shallow water, and other onshore/offshore.
- **Thermal Coal-based Power Generation**
  - All companies deriving any revenue from the thermal coal-based power generation are excluded.

## Appendix 2: Volatility Calculation

The volatility of the Excess Return Variant Index  $\sigma_t$ , on date  $t$  is the maximum of the long-term and short-term volatilities of the Excess Return Variant Index on date  $t$  determined using the exponentially weighted volatility calculation methodology as follows:

$$\sigma_t = \max(\sqrt{252} \sigma_{ST,t}, \sqrt{252} \sigma_{LT,t}),$$

where:

$$\sigma_{ST,t} = \sqrt{\lambda_{ST}(\sigma_{ST,t-1})^2 + (1 - \lambda_{ST})(r_{t-i})^2},$$

$$\sigma_{LT,t} = \sqrt{\lambda_{LT}(\sigma_{LT,t-1})^2 + (1 - \lambda_{LT})(r_{t-i})^2},$$

where:

$\sigma_{ST,t}$  and  $\sigma_{LT,t}$  are the short-term and long-term realized volatilities respectively for day  $t$

$\sigma_{ST,t-1}$  and  $\sigma_{LT,t-1}$  are short-term and long-term realized volatilities respectively for day  $t - 1$

$\lambda_{ST}$  and  $\lambda_{LT}$  are the short-term and long-term decay factors respectively, 0.94 and 0.97

$i$  is the number of “days lag” in the return calculation used for computing volatility (i.e., the lag between the return date and the volatility calculation date), 3 days.

$r_{t-i}$  is the logarithmic daily return of the index component on day  $t - i$

The volatility on day  $t$  is dependent on the initial estimate of volatility, the initial estimate of the short-term volatility and the long-term volatility is computed using the formula below:

$$\sigma_{ST,T_{ini}+1} = \sqrt{(1 - \lambda_{ST}) \sum_{j=1}^{T_{ini}} \lambda_{ST}^{T_{ini}-j} r_j^2},$$

$$\sigma_{LT,T_{ini}+1} = \sqrt{(1 - \lambda_{LT}) \sum_{j=1}^{T_{ini}} \lambda_{LT}^{T_{ini}-j} r_j^2},$$

where  $T_{ini}$  is the number of days for calculating initial volatility estimate, herein 100 days.

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