

# **Nuveen ESG Indexes Methodology**

May 2024

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## 1. Introduction

MSCI Indexes are constructed and maintained in accordance with the MSCI Global Investable Market Indexes Methodology and calculated as per the MSCI Index Calculation Methodology.

This methodology book provides a description of the rules and guidelines followed by MSCI for the construction and maintenance of the Nuveen ESG Indexes. The Nuveen ESG Indexes (“Indexes”) are created from specified Parent Indexes (defined below) and designed to represent the performance of a strategy that is designed to increase the Index’s exposure to positive environmental, social and governance (ESG) factors as well as exhibit lower carbon exposure than the Parent Index. They also aim to minimize the tracking error relative to the Parent Index through an optimization process<sup>1</sup>.

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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. Please refer to Appendix V for more details.

## 2. Constructing the Nuveen ESG Indexes

The Indexes use company ratings and research provided by MSCI ESG Research<sup>2</sup> for the Index construction.

Constructing the Nuveen ESG Indexes involves the following steps:

- Defining the Parent Index
- Defining the ESG Screened Universe
- Defining the Carbon Screened Universe
- Determining the optimized index subject to the optimization constraints

### 2.1 Defining the Parent Index

Following is the list of the parent indexes for respective Nuveen ESG Indexes:

Nuveen ESG Index	Parent Index
Nuveen ESG USA Large-Cap Growth Index	MSCI USA Growth Index
Nuveen ESG USA Large-Cap Value Index	MSCI USA Value Index
Nuveen ESG USA Mid-Cap Growth Index	MSCI USA Mid Cap Growth Index
Nuveen ESG USA Mid-Cap Value Index	MSCI USA Mid Cap Value Index
Nuveen ESG USA Small-Cap Index	MSCI USA Small Cap Index
Nuveen ESG USA Large-Cap Index	MSCI USA Index
Nuveen ESG International Developed Markets Equity Index	MSCI EAFE Index
Nuveen ESG Emerging Markets Equity Index	MSCI Emerging Markets (EM) Index

### 2.2 ESG Screened Universe

The ESG Screened Universe includes constituents from the 'Parent Index', which are not excluded as per the exclusion criteria (Section 2.2.1) and are selected in each GICS® sector (as per Section 2.2.2).

#### 2.2.1 ESG Exclusion Criteria

##### Controversy Score Exclusion Screen

<sup>2</sup> See section 4 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.

Securities of companies involved in very severe business controversies are not eligible for inclusion in the Nuveen ESG Indexes. This is implemented by excluding constituents of the Parent Index with MSCI ESG Controversy Score of 1 or lower ('Red Flag' and 'Orange Flag' companies).

Securities of companies not assessed by MSCI ESG Research for ESG Controversies are excluded from the ESG Screened Universe.

### Enhanced Controversy Score

This exclusion criterion is not applicable for the Nuveen ESG Emerging Markets Equity Index.

Orange Flag securities which satisfy any of the following criteria do not undergo Controversy Score exclusion screening (as per 3.2.1.1):

- Change in Industry Adjusted Score over the last three years is greater than or equal to 50%. Change in Industry Adjusted Score is calculated relative to the oldest available Industry Adjusted Score in 3-year long history. The change is calculated as (current Industry Adjusted Score – oldest available Industry Adjusted Score)/current Industry Adjusted Score.
  - The change is calculated relative to 2-year-old Industry Adjusted Score, if 3-year-old score is not available
  - The change is calculated relative to 1 year old Industry Adjusted Score, if neither 3-year-old score nor 2-year-old score is not available
  - The change is not calculated if there is no available history within last 3 years • MSCI ESG Rating is 'A' or better

### Controversial Business Exclusion Screen

Securities that are involved in specific businesses which have high potential for negative social and/or environmental impact are ineligible for inclusion in the index. Specifically:

- Alcohol
- Tobacco
- Gambling
- Nuclear Power
- Weapons and Firearms

Please refer to Appendix I for more details on these criteria.

### ESG Rating Exclusions

- MSCI ESG Rating Screen – Exclude 'CCC'
- Missing Rating – Securities not assessed by MSCI ESG Research for MSCI ESG Ratings are excluded from the ESG Screened Universe

### Global Sanctions

This exclusion criterion is only applicable for the Nuveen ESG Emerging Markets Equity Index.

Securities of companies that have certain business involvement in Sudan are ineligible for inclusion in the index. Please refer to Appendix II for more details on this criterion.

## 2.2.2 Security Selection Criteria

The remaining securities are sorted within each GICS® sector in descending order of industry adjusted score, controversy score and free float adjusted market capitalization. Subsequently, within each sector securities are selected until the cumulative weight of selected securities is 50% of the aggregate sector weight in the Parent Index.

The security that increases the cumulative sector coverage above 50% is defined as the 'marginal security'. The marginal security is included if it satisfies any of the following criteria:

- If its non-inclusion would result in cumulative sector coverage of less than 45%
- If its non-inclusion leads to higher absolute deviation from the target than the deviation due to marginal security's inclusion

## 2.3 Carbon Screened Universe

Securities from the ESG Screened Universe (from section 3.2) that are not excluded as per the below carbon emission exclusion criteria are included in the Carbon Screened Universe.

### 2.3.1 Carbon Emission Exclusion

1. Exclude securities with any ownership of fossil fuel reserves
2. Absolute Emission
  - a. Compute cumulative absolute emission (Scope 1 + Scope 2 emission) of the securities in the ESG Screened Universe
  - b. Sort securities in descending order of absolute emission
  - c. Exclude securities with the highest absolute emission until the cumulative absolute emission of the remaining securities is less than 50% of total cumulative absolute emission (calculated in the first step)
3. Emission Intensity
  - a. Compute total sales and Absolute Emission for the securities in the ESG Screened Universe
  - b. Compute Total Carbon Emission Intensity of the list by dividing Total Scope 1+2 Emissions by Total Sales (as computed in the previous step)
  - c. Set half the value computed above as the exclusion threshold for this step
  - d. Calculate Carbon Emission Intensity of each security as the ratio of Absolute Emission to total sales of the security and sort the list in its descending order
  - e. Exclude the securities with the highest Carbon Emission Intensity until the Total Carbon Emission Intensity of the remaining securities falls below the threshold set
  - f. Exception – Add back companies with GICS® sub-industry Renewable Electricity (GICS code: 55105020)

## 2.4 Determining The Optimized Index

The final index constituents are selected from the Carbon Screened Universe (from section 3.3) with an aim to achieve risk and return characteristics similar to the Parent Index using an optimization process. Optimization aims to minimize active risk subject to constraints. At each Quarterly Index Review, the following optimization constraints are employed, which aim to ensure replicability and investability while minimizing tracking error with respect to the respective Parent Index:

### Optimization Constraints

No.	Parameter	Standard and Mid-Cap Value/Growth	USA Small Cap	USA	EAFE	EM
1	Predicted Tracking Error	3.0%	3.0%	3.0%	3.0%	3.0%
2	Min Constituent Weight	0.01%	0.01%	0.01%	0.01%	0.01%
3	Constituent Active Weight	+/-1.25%	+/-1.25%	+/-1.25%	+/-1.25%	+/-1.25%
4	Constituent Weight as a multiple of its weight in the Parent Index	10	5	10	10	10
5	Max Issuer Active Weight*	1.25%	0.75%	1.25%	1.25%	1.25%
6	Active Sector Weights* (all sectors except Energy)	+/-4%	+/-4%	+/-4%	+/-4%	+/-4%
7	Active Sector Weights* (Energy sector)	+/-8%	+/-8%	+/-8%	+/-8%	+/-8%
8	Active Country Weight	NA	NA	NA	3%	5%
9	One Way Turnover during May & Nov Index Review	20%	20%	20%	20%	20%
10	One Way Turnover during Feb & Aug Index Review	5%	5%	5%	5%	5%
11	Specific Risk Aversion	0.0075	0.0075	0.0075	0.0075	0.0075
12	Common Factor Risk Aversion	0.75	0.75	0.75	0.75	0.75

\*Set as soft constraint while setting the optimization, thus reducing the possibility of not finding a feasible solution

Active weights are with respect to the weight in the Parent Index

**Infeasible Optimizations** - During the Quarterly and Semi-Annual Index Reviews, in the event that there is no optimal solution that satisfies all the optimization constraints, first the turnover constraint will be relaxed up to a maximum turnover of 50% in 5% increments until an optimal solution is found. If a feasible solution is not found at turnover of 50%, the predicted tracking error is relaxed up to a maximum of 5% in 1% increments. In the event that a feasible solution is still not found, initial construction (tracking error constraint of 3% and no turnover constraint) will be undertaken for that Index Review.

The optimization is conducted using the Barra Open Optimizer<sup>3</sup> in combination with the relevant Barra Global Equity Model. The optimization uses securities of Carbon Screened Universe for selection, and the aim to achieve the specified optimization objective within the constraints to determine the constituents of the Index.

## 2.5 Treatment of Unrated Companies

Companies not assessed by MSCI ESG Research on data for any of the following MSCI ESG Research products are not eligible for inclusion in the Indexes.

- MSCI ESG Ratings
- MSCI ESG Controversies

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<sup>3</sup> Please refer to Appendix III and IV for more details.



### 3. Maintaining the Nuveen ESG Indexes

#### 3.1 Quarterly Index Reviews

The Index is rebalanced on a quarterly basis to coincide with the regular Index Reviews (Index Reviews in February, May, August and November) of the MSCI Global Investable Market Indexes. The changes are implemented at the end of February, May, August and November. The pro forma indexes are in general announced nine business days before the effective date.

In general, MSCI uses MSCI ESG Research data (including MSCI ESG Ratings, MSCI ESG Controversies Scores, MSCI Business Involvement Screening Research and MSCI Climate Change Metrics) as of the end of the month preceding the Index Reviews. For some securities, such data may not be published by MSCI ESG Research by the end of the month preceding the Index Review. For such securities, MSCI will use ESG data published after the end of month, when available.

At each Index Review, the optimization process outlined in Section 2.4 is implemented.

#### 3.2 Ongoing Event-Related Changes

The general treatment of corporate events in the Nuveen ESG Indexes 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 Nuveen ESG Indexes, the changes made to the Parent Index during intermediate Index Reviews will be neutralized in the Nuveen ESG Indexes.

The following section briefly describes the treatment of common corporate events within the Nuveen ESG Indexes.

No new securities will be added (except where noted below) to the Index between Index Reviews. Parent Index deletions will be reflected simultaneously.

<b>EVENT TYPE</b>	<b>EVENT DETAILS</b>
<b>New additions to the Parent Index</b>	A new security added to the parent index (such as IPO and other early inclusions), will not be added to the index.
<b>Spin-Offs</b>	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.
<b>Merger/Acquisition</b>	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 nonconstituent 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/latest/CE>

## 4. MSCI ESG Research

The Indexes are products 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 Indexes use the following MSCI ESG Research products: MSCI ESG Controversies, MSCI ESG Business Involvement Screening Research and MSCI Climate Change Metrics. MSCI Indexes are administered by MSCI Limited and MSCI Deutschland GmbH.

### 4.1 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/legal/disclosures/esg-disclosures>.

### 4.2 MSCI ESG Controversies

MSCI ESG Controversies provides assessments of controversies concerning the negative environmental, social, and/or governance impact of company operations, products and services. The evaluation framework used in MSCI ESG Controversies is designed to be consistent with international norms represented by the UN Declaration of Human Rights, the ILO Declaration on Fundamental Principles and Rights at Work, and the UN Global Compact. MSCI ESG Controversies Score falls on a 0-10 scale, with "0" being the most severe controversy.

The MSCI ESG Controversies methodology can be found at: <https://www.msci.com/legal/disclosures/esg-disclosures>.

### 4.3 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.

The MSCI Business Involvement Screening Research methodology can be found at: <https://www.msci.com/legal/disclosures/esg-disclosures>.

### 4.4 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-change-solutions>.

## Appendix I: Controversial Business Screening Criteria

Companies that are involved in certain controversial business activities are ineligible to be included in the Nuveen ESG Indexes because of the high potential for negative social and/or environmental impacts of these activities. The details for the ineligibility criteria are as follows:

- Alcohol Producer - All companies classified as alcohol “Producer” that earn either 10% or more revenue or more than \$1.0 billion in revenue from alcohol-related products
- Tobacco - All companies classified as tobacco “Producer” that earn either 10% or more revenue or more than \$1.0 billion in revenue from tobacco-related products
- Gambling - All companies classified as gambling “Operations” or “Support” that earn either 10% or more revenue or more than \$1.0 billion in revenue from gambling-related products
- Nuclear Power
  - All companies with 6000 MW or more of installed capacity attributed to nuclear sources or with 10% or more of installed capacity attributed to nuclear sources
  - All companies involved in nuclear fuel enrichment for nuclear power generation
  - All companies involved in uranium mining for nuclear power generation
  - All companies involved in nuclear reactor design or construction for nuclear power generation
- Weapons and Firearms
  - Conventional Weapons - All companies that manufacture conventional weapons components or conventional weapons and weapons systems and earn 10% or more in revenue, or \$3 billion or more in revenue from these activities
  - 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), as defined by the methodology of the MSCI Ex-Controversial Weapons Indexes available at <https://www.msci.com/index-methodology>
  - Nuclear Weapons
    - Nuclear Systems - All companies that manufacture nuclear weapons, including nuclear warheads, intercontinental ballistic missiles, and ballistic missile submarines, which are capable of the delivery of nuclear warheads.
    - Nuclear Components - All companies that manufacture key nuclear weapons components.
- Civilian Firearms - All companies classified as a “Producer” that earn any revenue from civilian firearms.

## Appendix II: Global Sanctions Screen

Companies satisfying the following criteria are excluded from the Index

- Companies with ties to Sudanese military or government
- Companies that sell or distribute military equipment to any party based in Sudan or operating within Sudan borders (except United Nations and African Union troops)
- Companies that are majority owned subsidiary of mineral/power/military/oilinvolved Sudanese company
- Companies with ten percent or more of its total assets or revenues in Sudan that are associated with oil/mineral/or power sectors, or that have demonstrated complicity in genocide in Sudan

This screen does not exclude companies with substantial action toward cessation of operations, inactive operations, or humanitarian efforts in Sudan. The Screen is applied from December 2015.

### **Appendix III: Barra Equity Model Used in The Optimization**

The Indexes currently use an optimization setup using the MSCI Barra Global Equity Model for Long-Term Investors (GEMTL).

## **Appendix IV: New release of Barra® Equity Model or Barra® Optimizer**

A major new release of the relevant Barra Equity Model or Barra Optimizer may replace the former version within a suitable timeframe.



## Appendix V: Methodology Set

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 – <https://www.msci.com/index/methodology/latest/ReadMe>
- MSCI Corporate Events Methodology – <https://www.msci.com/index/methodology/latest/CE>
- MSCI Fundamental Data Methodology – <https://www.msci.com/index/methodology/latest/FundData>
- MSCI Index Calculation Methodology – <https://www.msci.com/index/methodology/latest/IndexCalc>
- MSCI Index Glossary of Terms – <https://www.msci.com/index/methodology/latest/IndexGlossary>
- MSCI Index Policies – <https://www.msci.com/index/methodology/latest/IndexPolicy>
- MSCI Global Industry Classification Standard (GICS) Methodology – <https://www.msci.com/index/methodology/latest/GICS>
- MSCI Global Investable Market Indexes Methodology – <https://www.msci.com/index/methodology/latest/GIMI>
- MSCI GVG Indexes Methodology – <https://www.msci.com/index/methodology/latest/GVG>
- MSCI Global ex Controversial Weapons Indexes Methodology – <https://www.msci.com/index/methodology/latest/XCW>
- ESG Factors In Methodology\*

The Methodology Set for the Index can also be accessed from MSCI’s webpage <https://www.msci.com/index-methodology> in the section ‘Search Methodology by Index Name or Index Code’.

\* ‘ESG Factors in Methodology’ contains the list of environmental, social, and governance factors considered, and how they are applied in the methodology (e.g., selection, weighting or exclusion). It can be accessed in the Methodology Set as described above.

## Appendix IV: Changes to this Document

### The following sections have been modified since November 2016

#### Section 3.1 – Defining the Parent Index

- Updated to include the Parent Index definition for the following two additional Indexes o TIAA ESG International Developed Markets Equity Index o TIAA ESG Emerging Markets Equity Index

#### Section 3.2.1.2 – Enhanced Controversy Score

- Updated to clarify the exclusion criterion for TIAA ESG Emerging Markets Equity Index

#### Section 3.2.1.5 – Global Sanctions

- Updated to include the Global Sanctions exclusion criterion for TIAA ESG Emerging Markets Equity Index

#### Section 3.4 – Optimization Constraints

- Updated to reflect the optimizer constraints applicable for the new TIAA ESG Indexes

#### Appendix II – Global Sanctions Screen

- Added to provide details of the screen

### The following sections have been modified since March 2017

#### Section 4.2 – Ongoing Event Related Maintenance

- The details of the Corporate Events treatment are now included in Section 4.2

### The following sections have been modified since June 2017

#### Section 3.2.1.2 – Enhanced Controversy Score

- Updated to provide more details about the calculation of change in Industry Adjusted Score

#### Section 3.3.1 – Carbon Emission Exclusion

- Updated to clarify the treatment of securities with nonzero potential carbon emission

### The following sections have been modified since November 2017

#### Appendix I – Controversial Business Screening Criteria

- Updated the controversial business screening criteria pertaining to Controversial Weapons

### The following sections have been modified since May 2018

#### Section 3.1 – Defining the Parent Index

- Updated to include the Parent Index definition for the following additional Index
  - o TIAA ESG USA Large-Cap Index

#### Section 3.4 – Optimization Constraints

- Updated to reflect the optimizer constraints applicable for the new TIAA ESG Indexes

#### Section 4.1: Quarterly Index Reviews

- Clarification on use of ESG data for securities whose data would be available after the end of the month preceding Index Review

**The following sections have been updated effective as of September 1, 2022:**

Appendix: ESG Screening Criteria

- Updated the screening criteria for companies involved in ‘Alcohol’, ‘Tobacco’, ‘Gambling’, ‘Nuclear Power’, ‘Conventional Weapons’, and ‘Civilian Firearms’

**The following sections have been updated effective as of December 1, 2022:**

Section 2 – MSCI ESG Research

- Updated the ESG product descriptions.

Section 3.4 – Optimization Constraints

- Updated Min Constituent Weight of USA to 0.01%

Appendix I – Controversial Business Screening Criteria

- Alignment of Methodology Book pertaining to Nuclear Weapons screening criteria

**The following sections have been updated effective as of May 2024:**

- The word ‘TIAA’ has been replaced with ‘Nuveen’.

Section 1: Introduction:

- Added footnote.

Section 2.5: Treatment of Unrated Companies

- New section detailing the treatment of companies with ratings and research not available from MSCI ESG Research

Section 3.1: Quarterly Index Reviews:

- All references to “Semi-Annual Index Reviews” and “Quarterly Index Reviews” of the MSCI GIMI were replaced with “Index Reviews”.

Section 4: MSCI ESG Research:

- Moved that section after the Section 3
- Updated description from this Section

Appendix III: Barra Equity Model Used in The Optimization

- Appendix was added.

Appendix IV: New release of Barra Equity Model or Barra Optimizer

- Appendix was added.

Appendix V: Methodology Set:

- Added details on the Methodology Set for the Indexes.

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