

WTW GLOBAL EQUITY DIVERSIFIED INDEX ON MSCI ACWI*

*** A custom index built by MSCI on criteria
provided by WTW**

January 2024

Contents

1	Introduction	4
2	Index Construction	5
2.1	Defining the Parent Index, Eligible Universe and the Base Currency for Optimization	5
2.2	Eligible Universe Screening.....	5
2.2.1	ESG Controversies Score Eligibility	5
2.2.2	ESG Ratings Eligibility.....	6
2.2.3	Controversial Business Involvement Criteria.....	6
2.3	Defining the Optimization Objective and Constraints.....	6
2.3.1	Optimization Objective	6
2.3.2	Optimization Constraints	7
2.4	Determining the Optimized Index	8
2.5	Treatment of Unrated Companies.....	9
3	Maintaining the WTW Global Equity Diversified Index	10
3.1	Quarterly Index Reviews.....	10
3.2	Ongoing Event Related Changes	10
4	MSCI ESG Research	12
4.1	MSCI ESG Ratings.....	12
4.2	MSCI ESG Controversies.....	12
4.3	MSCI ESG Business Involvement Screening Research	12
4.4	MSCI Climate Change Metrics.....	13
	Appendix 1: New Release of BARRA® EQUITY MODEL or BARRA® OPTIMIZER	14
	Appendix 2: Values- and Climate Change-Based Exclusion Criteria	15
	Appendix 3: Definition of Custom Factor Scores	17

Appendix 4: Definition of Regions..... 20

Appendix 5: Calculation of Target Metrics and Quarterly
Decarbonization Trajectory of Index..... 21

Appendix 6: Handling Infeasible Optimizations 23

Appendix 7: WTW Climate Transition Value-at-Risk (CTVaR) .. 24

Appendix 8: Methodology Set 253

Appendix 9: Changes to this Document 264

1 Introduction

The WTW Global Equity Diversified Index on MSCI ACWI*(*a custom index built by MSCI on criteria provided by WTW)¹ (herein ‘the Index’) aims to represent the performance of a strategy that seeks higher exposure to a custom multifactor S-score, calculated from three custom factors² – Value, Quality and Momentum – while targeting ex-ante risk similar to that of ACWI (the ‘Parent Index’).

The Index is constructed by selecting constituents of the Parent Index and applying an optimization process that aims to:

- Maximise the utility defined as the multi-factor S-score minus the sum of squared active weights of the constituents
- Reduce the weighted average greenhouse gas emissions (Scope 1 and 2) intensity of the Index by 50% by November 2030 Index Review³ compared to the weighted average greenhouse gas emissions intensity of MSCI ACWI as computed in November 2019 Index Review
- Reduce the weighted average greenhouse gas emissions (Scope 1 and 2) intensity of the Index by 10% compared to that of the Parent Index at the time of Index Review
- Reduce the weighted average WTW Climate Transition Value-at-Risk⁴ (or ‘CTVaR’) of the Index to 75% of that of the Parent Index
- Achieve a similar industry-adjusted ESG Score of the Index as that of the Parent Index

For the full list of optimization constraints, please refer to the section 2.3.2.

Please refer to Appendix 3 for the details on definition of custom factor scores.

¹ The Indexes are governed by a set of methodology and policy documents (“Methodology Set”), including the present index methodology document. Please refer to Appendix 8 for more details.

² Please refer to Appendix 3 for more details on definitions of the custom factors.

³ Please refer to Appendix 5 for more details on the quarterly decarbonisation pathway.

⁴ Please refer to Appendix 7 for details on the WTW Climate Transition Value-at-Risk.

2 Index Construction

The Index is constructed from the constituents of Parent Index. The following steps are applied at initial construction of the Index.

- Defining the Parent Index
- Defining the exclusion criteria
- Defining the Custom Multi-Factor Score
- Defining the Optimization Objective and Constraints
- Determining the Optimized Index

2.1 Defining the Parent Index, Eligible Universe and the Base Currency for Optimization

Constructing the Index begins with the constituents of the Parent Index and then by applying screens to arrive at the eligible universe to perform the optimization. The optimization is performed from a base currency perspective and does not allow short selling of securities. The optimization base currency is USD.

The optimization relies on the factor exposures for all the securities in the Parent Index and the factor covariance matrix of the relevant Barra Equity Model⁵.

2.2 Eligible Universe Screening

The Indexes use company ratings and research provided by MSCI ESG Research⁶ to determine eligibility for Index inclusion.

2.2.1 ESG Controversies Score Eligibility

The Index uses MSCI ESG Controversies Scores to identify companies that are involved in very serious controversies involving the environmental, social, or governance impact of their operations and/or products and services. Companies are required to have an MSCI ESG Controversies Score of 1 or above to be eligible for inclusion in the Index.

⁵ Please refer to Appendix 1 for the detailed information on model usage.

⁶ 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.

2.2.2 ESG Ratings Eligibility

The Indexes use MSCI ESG Ratings to identify companies that have demonstrated an ability to manage their ESG risks and opportunities.

2.2.3 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 mentioned business involvement criteria are excluded from the Index. Please refer to Appendix 2 for details on these criteria.

- Compliance with the United Nations Global Compact Principles
- Controversial Weapons
- Thermal Coal Mining
- Thermal Coal Power
- Tobacco
- Oil Sands

2.3 Defining the Optimization Objective and Constraints

2.3.1 Optimization Objective

The optimization objective is to maximize utility defined as the custom multifactor S-score minus the scaled sum of squared active weights (i.e. Herfindahl Index⁷) subject to ex-ante total risk being less than or equal to the ex-ante total risk of the Parent Index at the time of rebalancing along with various optimization constraints specified in 2.3.2.

Calculation of the Custom multifactor S-score

First, for each security in the Parent Index, a custom multi-factor score is computed as the average of custom factor exposures adjusted for region-sector mean.⁸

$$MF(i) = \frac{1}{3} * CV(i) + \frac{1}{3} * CQ(i) + \frac{1}{3} CM(i)$$

⁷ The risk aversion parameter is set to 0.075.

⁸ Please refer to Appendix 3 for more details on the computation of the custom value, custom quality and custom momentum scores. Please refer to Appendix 4 for more details on the regions.

Where,

$MF(i)$ = Custom multi-factor score for each security i

$CV(i)$ = Custom Value factor score for each security i

$CQ(i)$ = Custom Quality factor score for each security i

$CM(i)$ = Custom Momentum factor score for each security i

Then the custom multifactor S-score for each stock is calculated as:

$$\alpha(i) = \frac{2}{(1 + \exp(-MF(i)))} - 1$$

2.3.2 Optimization Constraints

The Index is constructed using the Barra Open Optimizer in combination with the relevant Barra Equity Model. The optimization uses the universe of eligible securities and the specified optimization objective and constraints to determine the Index.

At each quarterly Index Review in May, August, November and February, the following optimization constraints are applied which aim to ensure investability while achieving relatively high exposure to the custom multifactor S-score with diversification and control over ex-ante total risk.⁹

No	Category	Parameter	Constraint
1	Stock	Active Stock weight is less than or equal to +/-X% w.r.t. Parent Index	1%
2		Max Stock weight is less than or equal to N times its weight in Parent Index	2x
3		Max Stock weight is less than or equal to	Max(5%,1x of Parent weight)
4		Min Stock weight is greater than X%	0%
5	Issuer	Active Issuer weight is less than or equal to +/-X% w.r.t. Parent Index	1%
6		Max Issuer weight is less than or equal to	Max(5%,1x of Parent weight)
7	Sector	Active Sector weight is less than or equal to +/-X% w.r.t. Parent Index	5%

⁹ Please refer to Appendix 6 for more details on handling infeasible optimization.

No	Category	Parameter	Constraint
8	Country	Active Country weight is less than or equal to +/-X% w.r.t. Parent Index	2.50%
9		Max Country weight is less than or equal to N times its weight in Parent Index	3x
10	Currency	Active Currency weight is less than or equal to +/-X% w.r.t. Parent Index	2.50%
11	Factor	Active GEMLT Beta exposure is less than or equal to +/-X w.r.t. Parent Index	0.1
12		Active GEMLT Size exposure is less than or equal to +/-X w.r.t. Parent Index	0.1
13	ESG ¹⁰	Weighted Average Industry-Adjusted ESG Score of the Index is equal to or greater than X% of Weighted Average Industry-Adjusted ESG Score of the Parent Index	100%
14	Climate	Weighted Average WTW CTVaR ¹¹ of Index is equal to or greater than X% of Weighted Average WTW CTVaR of the Parent Index	75% ¹²
15		Weighted Average GHG Emissions Intensity (Scope 1+2 / EVIC) of Index equal to or lower than X% of Weighted Average GHG Emissions Intensity of the Parent Index	90% ¹³
16		Weighted Average GHG Emissions Intensity (Scope 1+2/ EVIC) of Index is equal or lower than GHG Emissions Intensity Target	Achieve 50% ¹⁴ of MSCI ACWI Nov 2019 Index Review Weighted Average GHG Emissions Intensity by Nov 2030 Index Review
17	Custom multifactor S-Score	Weighted Average Custom multifactor S-Score of Index is equal to or greater than +X of Weighted Average Custom multifactor S-Score of Parent Index	0.05

2.4 Determining the Optimized Index

The weights of the securities are an outcome of the optimization process. The optimization uses the eligible universe as the universe of eligible securities and the specified optimization objective and constraints to determine the Optimized Index.

¹⁰ The industry-adjusted ESG Score constraint is applied from Feb 2013 Index Review.

¹¹ Please refer to Appendix 7 for details on the WTW Climate Transition Value-at-Risk.

¹² The WTW CTVaR constraint is applied from August 2021 Index Review.

¹³ The GHG Emissions Intensity relative to the Parent constraint is applied from November 2013 Index Review.

¹⁴ The Quarterly Decarbonization constraint and Custom multifactor S-Score constraints are applied from Feb 2020 Index Review. Please refer to Appendix 5 for more details on the quarterly decarbonisation pathway.

2.5 Treatment of Unrated Companies

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

- MSCI ESG Controversies
- MSCI ESG Ratings

3 Maintaining the WTW Global Equity Diversified Index

3.1 Quarterly Index Reviews

The Index is reviewed on a quarterly basis to coincide with the regular 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.

In general, the pro forma Index is announced nine business days before the effective date.

In general, MSCI uses MSCI ESG Research data¹⁵ (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 the rebalancing of the Index. 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, for the rebalancing of the Index.

3.2 Ongoing Event Related Changes

The general treatment of corporate events in the 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 Index.

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

EVENT TYPE	EVENT DETAILS
New additions to the Parent Index	A new security added to the Parent Index (such as IPO and other early

¹⁵ See section 4 for details of data sourced from MSCI ESG Research used in the Index.

inclusion) 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>

4 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 ESG Controversies, MSCI ESG Business Involvement Screening Research and MSCI Climate Change Metrics. MSCI Indexes are administered by MSCI Limited.

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/esg-and-climate-methodologies>.

4.2 MSCI ESG Controversies

MSCI ESG Controversies provide assessments of controversies concerning the potential 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/esg-and-climate-methodologies>.

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.

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

4.4 MSCI Climate Change Metrics

MSCI Climate Change Metrics provide climate data & tools to support institutional investors seeking to integrate climate risk & opportunities into their investment strategy and processes. This includes investors seeking to achieve a range of objectives, including measuring and reporting on climate risk exposure, implementing low carbon and fossil fuel-free strategies, alignment 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 1: New Release of BARRA® EQUITY MODEL or BARRA® OPTIMIZER

The methodology presently uses MSCI Barra Global Equity Model for Long-Term Investors (“GEMTLT”) for the optimization. A new release of the relevant Barra Equity Model or Barra Optimizer may replace the former version within a suitable timeframe.

Appendix 2: Values- and Climate Change-Based Exclusion Criteria

The Index is constructed with an aim to reflect the performance of companies that are consistent with specific values- and climate change-based criteria¹⁶.

Compliance with all the UN Global Compact Principles

- All companies that fail to comply with the United Nations Global Compact principles are excluded. 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.
- **Tobacco**
 - All companies classified as a "Producer" or that derive any revenue from tobacco production.
 - All companies deriving 5% or more aggregate revenue from the distribution, retail and supply of tobacco-related products.

Climate Change-based Exclusions Criteria

- **Thermal Coal Mining**
 - All companies deriving 15% or more revenue from the mining of thermal coal are excluded.
- **Thermal Coal-based Power Generation**
 - All companies deriving 15% or more revenue from the thermal coal-based power generation are excluded.
- **Oil Sands**
 - All companies deriving 15% or more revenue from oil sands extraction generation are excluded.

¹⁶ The exclusion of the companies using these criteria is applied from Feb 2013 Index Review.

Appendix 3: Definition of Custom Factor Scores

Each of the three custom factors uses a unique set of data inputs and weighting, which follow a different definition than the standard factors derived from the Barra Equity Model.

Each Custom Factor Score has been defined below:

Value

Definition: $= \frac{1}{6} \cdot \text{BTOP} + \frac{1}{6} \cdot (\frac{1}{2} \cdot \text{ETOP} + \frac{1}{2} \cdot \text{ETOPF}) + \frac{1}{6} \cdot \text{CETOP} + \frac{1}{6} \cdot \text{EBITTOEV} + \frac{1}{6} \cdot \text{DTOP} + \frac{1}{6} \cdot \text{STOP}$

Where,

BTOP = Book to Price

Earnings-to-Price:

ETOP = Earnings to Price

ETOPF = Analyst predicted Earnings to Price

CETOP = Cash Earnings to Price

EBITTOEV = Enterprise Multiple (EBIT to EV)

DTOP = Dividend Yield

STOP = Inverse of Price to Sales

Quality

Definition: $= \frac{1}{3} \cdot (\frac{1}{5} \cdot \text{GP} + \frac{1}{5} \cdot \text{GPM} + \frac{1}{5} \cdot \text{ATO} + \frac{1}{5} \cdot \text{ROA} + \frac{1}{5} \cdot \text{ROE}) + \frac{1}{3} \cdot (\frac{1}{3} \cdot \text{ABS} + \frac{1}{3} \cdot \text{ACF} + \frac{1}{3} \cdot \text{CETOE}) + \frac{1}{3} \cdot (\frac{1}{3} \cdot \text{AGRO} + \frac{1}{3} \cdot \text{IGRO} + \frac{1}{3} \cdot \text{CXGRO})$

Where,

Profitability:

GP = Gross Profitability

GPM = Gross Profit Margin

ATO = Asset Turnover

ROA¹⁷ = Return on Assets (3-year average)

¹⁷ If one or two of the last 3 years are missing, then the average based on the remainder of the 3 years.

ROE¹⁸ = Return on Equity (3-year average)

Earnings Quality:

ABS = Balance Sheet Accruals

ACF = Cashflow Statement Accruals

CETOE = Cash Earnings to Earnings

Investment Quality:

AGRO = Total Assets Growth Rate

IGRO = Issuance Growth

CXGRO = Capital Expenditure Growth

Momentum

Definition: $= \frac{1}{4} * HALPHA + \frac{1}{4} * HALPHA_UNADJ + \frac{1}{4} * (HALPHA / H\SIGMA) + \frac{1}{4} * (HALPHA / H\SIGMA)_UNADJ$

Where,

HALPHA = Historical Alpha

HALPHA_UNADJ = Historical Alpha (not adjusted for sector-region mean)

HALPHA / H\SIGMA = Historical Alpha / Historical Sigma (the non-transformed signals are used for ratio calculation; the ratio is subsequently transformed)

(HALPHA / H\SIGMA)_UNADJ = Historical Alpha / Historical Sigma (not adjusted for sector-region mean)

Each of the above-mentioned signals and the resulting combined signals as well as the custom factor scores above are Z-score transformed based on the Parent Index and then winsorized at +/-3 and adjusted for the sector region-mean Z-score, unless stated otherwise. This transformation is happening at each nested level before the resulting signal is included into a combined signal.

The regions are defined as the constituents of corresponding MSCI indexes in Appendix 4. The sectors are defined as the Global Industry Classification Standard (GICS®) sector of the Parent Index.

¹⁸ If one or two of the last 3 years are missing, then the average based on the remainder of the 3 years.



The final custom multi-factor score is calculated using equal weights to these custom Value, Quality and Momentum scores.

Appendix 4: Definition of Regions

7 custom regions are defined as the constituents of corresponding MSCI indexes as mentioned below:

No.	Region	Index
1	USA	MSCI USA Index
2	Canada	MSCI Canada Index
3	DM EME	MSCI EME Index
4	EM EMEA	MSCI EM EMEA Index
5	DM Asia	MSCI Pacific Index
6	EM Asia	MSCI EM Asia Index
7	EM Latin America	MSCI EM Latin America

Appendix 5: Calculation of Target Metrics and Quarterly Decarbonization Trajectory of Index

Calculation of GHG Intensity relative to EVIC

For Parent Index constituents where the Scope 1+2 Emissions Intensity is not available, the average Scope 1+2 Emissions Intensity of all the constituents of the MSCI ACWI in the same GICS® Industry Group in which the constituent belongs is used.

Security Level GHG Emissions Intensity =

$$\frac{\text{Scope 1 + 2 GHG Emissions} * (1 + EVIAF)}{\text{Enterprise Value} + \text{Cash(in M\$)}}$$

Enterprise Value Inflation Adjustment Factor (EVIAF) =

$$EVIAF = \left(\frac{\text{Average(Enterprise Value} + \text{Cash)}}{\text{Previous (Average(Enterprise Value} + \text{Cash))}} \right) - 1$$

Weighted Average GHG Emissions Intensity of Parent Index =

$$\sum (\text{Weight in Parent Index} * \text{Security Level GHG Emissions Intensity})$$

Weighted Average GHG Emissions Intensity of Derived Index =

$$\sum (\text{Index Weight} * \text{Security Level GHG Emissions Intensity})$$

Calculation of Average Decarbonization for Quarterly Decarbonization Constraint

The Weighted Average GHG Emissions Intensity on the Base Date (W_0) is used to compute the target Weighted Average GHG Emissions Intensity (W_t) at the May, August, November and February Index Reviews as per the below formula.

$$W_t = 1.5 * W_0 * 0.975340673^t$$

Where W_0 is the MSCI ACWI November 2019 Index Review¹⁹ GHG Emissions Intensity (based on Scope 1+2/EVIC) at Base Date (November 2019 Index Review) and 't' is the number of the quarterly Index Reviews since the Base Date such that t=1 coincides with the February 2020 Index Review. The decarbonization parameter of 0.975340673 ensures that the targeted reduction in GHG Emissions Intensity of the Index in each index review follows a pathway such that the cumulative reduction compared to the weighted average GHG Emissions Intensity of MSCI ACWI as of November 2019 Index Review converges to 50% by November 2030 Index Review.

¹⁹ The November 2019 Index Review uses last end of month data for the Scope 1+2 / EVIC calculation, coinciding with November 29, 2019.

Appendix 6: Handling Infeasible Optimizations

During the Index Reviews, in the event that there is no optimal solution that satisfies all the optimization constraints defined in Section 2.3.2, the following constraints will be relaxed until an optimal solution is found:

- Relax the quarterly decarbonization constraint, where the target for the GHG emissions intensity in that Index Review will be increased up to 115% of its level, W_t , in 3 steps.
- After exhausting all steps of the previous relaxation, relax the maximum asset weight multiple starting from 4x to 20x in steps of 2x.

In the event that there is no optimal solution after the above constraints have been relaxed, the Index will not be rebalanced for that Index review.

Appendix 7: WTW Climate Transition Value-at-Risk (CTVaR)

The WTW Climate Transition Value-at-Risk (CTVaR) is calculated by Willis Limited and is a measure of the risk of a reduction in an asset's value due to the global transition to net-zero emissions. It estimates the change in the value of an asset under a transition scenario, compared to its current market price. CTVaR is updated quarterly.

If there is no coverage or a significant drop in coverage of CTVaR in terms of number of securities in a particular Index Review, a fallback mechanism will be applied using the latest available quarterly data.

The WTW CTVaR data is recorded at quarterly frequency for March, June, September and December and is shared with MSCI on the 1st business day of these months following UK holidays.

For further details on the calculation, please refer to:

<https://www.wtwco.com/en-gb/solutions/products/climate-transition-value-at-risk>

Appendix 8: 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 – www.msci.com/index/methodology/latest/ReadMe
- MSCI Corporate Events Methodology – www.msci.com/index/methodology/latest/CE
- MSCI Fundamental Data Methodology – www.msci.com/index/methodology/latest/FundData
- MSCI Index Calculation Methodology – www.msci.com/index/methodology/latest/IndexCalc
- MSCI Index Glossary of Terms – www.msci.com/index/methodology/latest/IndexGlossary
- MSCI Index Policies – www.msci.com/index/methodology/latest/IndexPolicy
- MSCI Global Industry Classification Standard (GICS) Methodology – www.msci.com/index/methodology/latest/GICS
- MSCI Global Investable Market Indexes Methodology – www.msci.com/index/methodology/latest/GIMI
- MSCI Global ex Controversial Weapons Indexes Methodology – www.msci.com/index/methodology/latest/XCW

The Methodology Set for the Indexes 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’.

Appendix 9: Changes to this Document

The following sections have been updated as of January 2024:

Section 2.5: Treatment of Unrated Companies

- Moved treatment of companies with ratings and research not available from MSCI ESG Research from section 2.2.1 and 2.2.2 to a new section.

Section 2.3.2: Optimization Constraints

- Added issuer-level constraints.

Appendix 8: Methodology Set

- Added details on the Methodology Set for the Index.

Contact us

[msci.com/contact-us](https://www.msci.com/contact-us)

AMERICAS

United States	+ 1 888 588 4567 *
Canada	+ 1 416 687 6270
Brazil	+ 55 11 4040 7830
Mexico	+ 52 81 1253 4020

EUROPE, MIDDLE EAST & AFRICA

South Africa	+ 27 21 673 0103
Germany	+ 49 69 133 859 00
Switzerland	+ 41 22 817 9777
United Kingdom	+ 44 20 7618 2222
Italy	+ 39 02 5849 0415
France	+ 33 17 6769 810

ASIA PACIFIC

China	+ 86 21 61326611
Hong Kong	+ 852 2844 9333
India	+ 91 22 6784 9160
Malaysia	1800818185 *
South Korea	+ 82 70 4769 4231
Singapore	+ 65 67011177
Australia	+ 612 9033 9333
Taiwan	008 0112 7513 *
Thailand	0018 0015 6207 7181 *
Japan	+ 81 3 4579 0333

* toll-free

About MSCI

MSCI is a leading provider of critical decision support tools and services for the global investment community. With over 50 years of expertise in research, data and technology, we power better investment decisions by enabling clients to understand and analyze key drivers of risk and return and confidently build more effective portfolios. We create industry-leading research-enhanced solutions that clients use to gain insight into and improve transparency across the investment process.

To learn more, please visit www.msci.com.

The process for submitting a formal index complaint can be found on the index regulation page of MSCI's website at: <https://www.msci.com/index-regulation>.

Notice and disclaimer

This document is research for informational purposes only and is intended for institutional professionals with the analytical resources and tools necessary to interpret any performance information. Nothing herein is intended to promote or recommend any product, tool or service.

This document and all of the information contained in it, including without limitation all text, data, graphs, charts (collectively, the "Information") is the property of MSCI Inc. or its subsidiaries (collectively, "MSCI"), or MSCI's licensors, direct or indirect suppliers or any third party involved in making or compiling any Information (collectively, with MSCI, the "Information Providers") and is provided for informational purposes only. The Information may not be modified, reverse-engineered, reproduced or disseminated in whole or in part without prior written permission from MSCI. All rights in the Information are reserved by MSCI and/or its Information Providers.

The Information may not be used to create derivative works or to verify or correct other data or information. For example (but without limitation), the Information may not be used to create indexes, databases, risk models, analytics, software, or in connection with the issuing, offering, sponsoring, managing or marketing of any securities, portfolios, financial products or other investment vehicles utilizing or based on, linked to, tracking or otherwise derived from the Information or any other MSCI data, information, products or services.

The user of the Information assumes the entire risk of any use it may make or permit to be made of the Information. NONE OF THE INFORMATION PROVIDERS MAKES ANY EXPRESS OR IMPLIED WARRANTIES OR REPRESENTATIONS WITH RESPECT TO THE INFORMATION (OR THE RESULTS TO BE OBTAINED BY THE USE THEREOF), AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, EACH INFORMATION PROVIDER EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES (INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF ORIGINALITY, ACCURACY, TIMELINESS, NON-INFRINGEMENT, COMPLETENESS, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) WITH RESPECT TO ANY OF THE INFORMATION.

Without limiting any of the foregoing and to the maximum extent permitted by applicable law, in no event shall any Information Provider have any liability regarding any of the Information for any direct, indirect, special, punitive, consequential (including lost profits) or any other damages even if notified of the possibility of such damages. The foregoing shall not exclude or limit any liability that may not by applicable law be excluded or limited, including without limitation (as applicable), any liability for death or personal injury to the extent that such injury results from the negligence or willful default of itself, its servants, agents or sub-contractors.

Information containing any historical information, data or analysis should not be taken as an indication or guarantee of any future performance, analysis, forecast or prediction. Past performance does not guarantee future results.

The Information may include "Signals," defined as quantitative attributes or the product of methods or formulas that describe or are derived from calculations using historical data. Neither these Signals nor any description of historical data are intended to provide investment advice or a recommendation to make (or refrain from making) any investment decision or asset allocation and should not be relied upon as such. Signals are inherently backward-looking because of their use of historical data, and they are not intended to predict the future. The relevance, correlations and accuracy of Signals frequently will change materially.

The Information should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. All Information is impersonal and not tailored to the needs of any person, entity or group of persons.

None of the Information constitutes an offer to sell (or a solicitation of an offer to buy), any security, financial product or other investment vehicle or any trading strategy.

It is not possible to invest directly in an index. Exposure to an asset class or trading strategy or other category represented by an index is only available through third party investable instruments (if any) based on that index. MSCI does not issue, sponsor, endorse, market, offer, review or otherwise express any opinion regarding any fund, ETF, derivative or other security, investment, financial product or trading strategy that is based on, linked to or seeks to provide an investment return related to the performance of any MSCI index (collectively, "Index Linked Investments"). MSCI makes no assurance that any Index Linked Investments will accurately track index performance or provide positive investment returns. MSCI Inc. is not an investment adviser or fiduciary and MSCI makes no representation regarding the advisability of investing in any Index Linked Investments.

Index returns do not represent the results of actual trading of investable assets/securities. MSCI maintains and calculates indexes, but does not manage actual assets. The calculation of indexes and index returns may deviate from the stated methodology. Index returns do not reflect payment of any sales charges or fees an investor may pay to purchase the securities underlying the index or Index Linked Investments. The imposition of these fees and charges would cause the performance of an Index Linked Investment to be different than the MSCI index performance.

The Information may contain back tested data. Back-tested performance is not actual performance, but is hypothetical. There are frequently material differences between back tested performance results and actual results subsequently achieved by any investment strategy.

Constituents of MSCI equity indexes are listed companies, which are included in or excluded from the indexes according to the application of the relevant index methodologies. Accordingly, constituents in MSCI equity indexes may include MSCI Inc., clients of MSCI or suppliers to MSCI. Inclusion of a security within an MSCI index is not a recommendation by MSCI to buy, sell, or hold such security, nor is it considered to be investment advice.

Data and information produced by various affiliates of MSCI Inc., including MSCI ESG Research LLC and Barra LLC, may be used in calculating certain MSCI indexes. More information can be found in the relevant index methodologies on www.msci.com.

MSCI receives compensation in connection with licensing its indexes to third parties. MSCI Inc.'s revenue includes fees based on assets in Index Linked Investments. Information can be found in MSCI Inc.'s company filings on the Investor Relations section of msci.com.

MSCI ESG Research LLC is a Registered Investment Adviser under the Investment Advisers Act of 1940 and a subsidiary of MSCI Inc. Neither MSCI nor any of its products or services recommends, endorses, approves or otherwise expresses any opinion regarding any issuer, securities, financial products or instruments or trading strategies and MSCI's products or services are not a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such, provided that applicable products or services from MSCI ESG Research may constitute investment advice. MSCI ESG Research materials, including materials utilized in any MSCI ESG Indexes or other products, have not been submitted to, nor received approval from, the United States Securities and Exchange Commission or any other regulatory body. MSCI ESG and climate ratings, research and data are produced by MSCI ESG Research LLC, a subsidiary of MSCI Inc. MSCI ESG Indexes, Analytics and Real Estate are products of MSCI Inc. that utilize information from MSCI ESG Research LLC. MSCI Indexes are administered by MSCI Limited (UK).

Please note that the issuers mentioned in MSCI ESG Research materials sometimes have commercial relationships with MSCI ESG Research and/or MSCI Inc. (collectively, "MSCI") and that these relationships create potential conflicts of interest. In some cases, the issuers or their affiliates purchase research or other products or services from one or more MSCI affiliates. In other cases, MSCI ESG Research rates financial products such as mutual funds or ETFs that are managed by MSCI's clients or their affiliates, or are based on MSCI Inc. Indexes. In addition, constituents in MSCI Inc. equity indexes include companies that subscribe to MSCI products or services. In some cases, MSCI clients pay fees based in whole or part on the assets they manage. MSCI ESG Research has taken a number of steps to mitigate potential conflicts of interest and safeguard the integrity and independence of its research and ratings. More information about these conflict mitigation measures is available in our Form ADV, available at <https://adviserinfo.sec.gov/firm/summary/169222>.

Any use of or access to products, services or information of MSCI requires a license from MSCI. MSCI, Barra, RiskMetrics, IPD and other MSCI brands and product names are the trademarks, service marks, or registered trademarks of MSCI or its subsidiaries in the United States and other jurisdictions. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and S&P Global Market Intelligence. "Global Industry Classification Standard (GICS)" is a service mark of MSCI and S&P Global Market Intelligence.

MIFID2/MIFIR notice: MSCI ESG Research LLC does not distribute or act as an intermediary for financial instruments or structured deposits, nor does it deal on its own account, provide execution services for others or manage client accounts. No MSCI ESG Research product or service supports, promotes or is intended to support or promote any such activity. MSCI ESG Research is an independent provider of ESG data.

Privacy notice: For information about how MSCI collects and uses personal data, please refer to our Privacy Notice at <https://www.msci.com/privacy-pledge>.

