

MSCI World 20% Screened TE Constrained Select Index

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1. Introduction

The MSCI World 20% Screened TE Constrained Select Index¹ (the “Index”) aims to represent the performance of an investment strategy that is designed to exclude companies based on ESG and climate change criteria. Further, based on the companies’ ESG Scores², the index excludes 20% of the number of stocks from the MSCI World Index (the “Parent Index”).

As a final step, the Index aims to minimize the tracking error relative to the Parent Index through an optimization process.

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

² For more details on the ESG Score, please refer to the MSCI ESG Ratings methodology which can be found on <https://www.msci.com/esg-and-climate-methodologies>

2. Constructing the Index

The Index uses company ratings and research provided by MSCI ESG Research³ for index construction.

2.1 Applicable Universe

The Applicable Universe includes all existing constituents of the Parent Index. This approach aims to provide an opportunity set with sufficient liquidity and investment capacity.

2.2 Eligible Universe

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

1. **ESG Controversies:** All companies assessed as having involvement in ESG controversies that are classified as Red (MSCI ESG Controversy Score of 0)
 - A Red Flag indicates an ongoing, Very Severe ESG controversy implicating a company directly through its actions, products, or operations.
2. **Controversial Weapons:** All companies with any tie to Controversial Weapons (cluster munitions, landmines, depleted uranium weapons, biological/chemical weapons, blinding lasers, nondetectable fragments and incendiary weapons), as defined by the methodology of the MSCI Global Ex Controversial Weapons Indexes available at <https://www.msci.com/index-methodology>
3. **Fossil Fuel Extraction:** All companies deriving 5% or more aggregate revenue (either reported or estimated) from thermal coal mining and unconventional oil and gas extraction.
 - **Thermal Coal Mining:** Revenue from the mining of thermal coal (including lignite, bituminous, anthracite and steam coal) and its sale to external parties. It does not cover revenue from metallurgical coal; coal mined for internal power generation (e.g. in the case of vertically integrated power producers); intra-company sales of mined thermal coal; and revenue from coal trading.
 - **Unconventional Oil & Gas Extraction:** Revenue from oil sands, oil shale (kerogen-rich deposits), shale gas, shale oil, coal seam gas, and coal bed methane. It does not cover all types of conventional oil and gas production including Arctic onshore/offshore, deep water, shallow water and other onshore/offshore
4. **Thermal Coal Power:** All companies deriving 5% or more revenue (either reported or estimated) from thermal coal based power generation.
5. **Weapons and Firearms:** All companies deriving 10% or more aggregate revenue from conventional, controversial, and nuclear weapons as well as from civilian firearms and ammunitions based on the following categories:

³ See section 4 for further information regarding ESG and climate data used in the Indexes that MSCI Limited and MSCI Deutschland GmbH source 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 as a provider to MSCI Limited and MSCI Deutschland GmbH. MSCI Limited and MSCI Deutschland GmbH are the benchmark administrators for the MSCI indexes.

- Companies involved in the production of conventional weapons, components for such products or support systems and services for such products.
 - Companies involved in the production of biological or chemical weapons as well as components of such products.
 - Companies involved in the production of blinding laser, incendiary or non-detectable fragments weapons in their most recently completed fiscal year.
 - Companies involved in the production of nuclear weapons, exclusive and dual-use delivery platforms capable to deliver such products, intended and dual-use components of such products, as well as services provided for such products.
 - Companies involved in the production (wholesale or retail) of firearms and ammunition intended for civilian use as a percentage of total revenue in its most recently completed fiscal year.
- 6. Tobacco Production:** All companies deriving 5% or more revenue from the production of tobacco related products.

2.3 ESG Filtered Universe

The ESG Filtered Universe is constructed from the Eligible Universe by excluding securities based on their ESG Score in the following steps:

1. Securities in the Applicable Universe are sorted in descending order of their ESG Score.
2. Securities which are in the bottom 20% (by number of stocks) of the sorted list are excluded from the ESG Filtered Universe.

2.4 Optimization Constraints

At each index review, the Index is constructed using an optimization process that aims to achieve replicability and investability as well as minimize ex-ante tracking error relative to the Parent Index subject to the following constraints:

Table 1: Constraints imposed to meet diversification objectives.

No.	Diversification Objective	Value
1.	Constituent Active Weight	+/- 2%
2.	Minimum constituent weight	0.01%
3.	Security Weight as a multiple of its weight in the Parent Index	20x
4.	Active Sector Weights	+/-5%
5.	Active Country Weights ⁴	+/-5%
6.	One Way Turnover in Semi-Annual Index Reviews	10%
7.	One Way Turnover in Quarterly Index Reviews	5%
8.	Common Factor Risk Aversion	0.0075

⁴ In case there are countries in the Parent Index which weigh less than 2.5% in the Parent Index then for such countries the active country upper bound of +5% is not applicable. When a country weighs less than 2.5% in the Parent Index then the upper bound of country weight in the Index is set at three times of the country's weight in Parent Index.

9.	Specific Risk Aversion	0.075
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During the index review, in the event that there is no optimal solution that satisfies all the optimization constraints, the one-way index turnover constraint is relaxed in steps of 1% up to 20%.

In the event that no optimal solution is found after the above constraint relaxations are exhausted, the Index will not be rebalanced for that index review.

2.5 Determining the Optimized Portfolio

The Index is constructed using the Barra Open Optimizer⁵ in combination with the relevant Barra Equity Model. The optimization uses the universe of eligible securities and the specified optimization objectives and constraints to determine the constituents of the Index.

2.6 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 Index.

- MSCI ESG Controversies

⁵ Please refer to Appendix I and II for more details

3. Maintaining the Index

3.1 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 in general announced nine business days before the effective date.

In general, MSCI uses MSCI ESG Research data (including MSCI ESG Ratings, Climate Change Metrics, MSCI ESG Controversies and MSCI Business Involvement Screening Research) as of the end of the month preceding the Index Reviews 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.

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

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.

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>

4. MSCI ESG Research

The Index is a product of MSCI Inc. that utilizes 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 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 are based on 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 <https://www.msci.com/esg-and-climate-methodologies>

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-solutions>.

Appendix I: Barra Equity Model Used in The Optimization

The Index currently uses an optimization setup using the MSCI Barra Global Equity Model for Long-Term Investors (GEMTLT).

Appendix II: 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 III: 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
- 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.

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