

MSCI Global Fossil Fuels Exclusion Indexes Methodology

November 2019

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1 Introduction

The MSCI Global Fossil Fuels Exclusion Indexes have been developed for use by institutional investors, including pension funds, who aim to eliminate or reduce some or all fossil fuel reserves exposure from their investments. The MSCI Global Fossil Fuels Indexes are currently available in the following two variants:

- MSCI Global ex Fossil Fuels Indexes
- MSCI Global ex Coal Indexes

These indexes are free float-adjusted market capitalization weighted.

2 MSCI ESG Research

The MSCI Global Fossil Fuels Exclusion Indexes use the MSCI ESG Climate Change Metrics provided by MSCI ESG Research.

MSCI ESG Climate Change Metrics is designed to support investors seeking to achieve a range of objectives, including measuring and reporting on climate risk exposure, implementing low carbon and fossil fuel-free strategies, and factoring climate change research into their risk management processes. It provides Carbon Emissions, Fossil Fuel exposure, environmental impact (i.e., clean technology) data and screens, as well as climate-related risk exposure and management assessment on companies.

MSCI ESG Research identifies companies with direct or indirect ownership of fossil fuel reserves. The scope of research covers fossil fuel reserves used for several applications including energy (e.g., steam coal used for power generation) or industrial uses (e.g. coking coal used for steel production). Fossil fuel reserves data is updated annually. Sources include company publications (e.g. annual reports, 10K, 20F) and other public records (such as sustainability reports).

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

3 Constructing the MSCI Global Fossil Fuels Exclusion Indexes

3.1 Underlying Universe

The selection universe for the MSCI Global Fossil Fuels Exclusion Indexes is defined by the constituents of the MSCI Global Investable Market Indexes (GIMI).

3.2 Screening Criteria

3.2.1 Fossil Fuel Reserves

The MSCI Global Fossil Fuels Exclusion Indexes use company research provided by MSCI ESG Research to determine eligibility for index inclusion. In particular, the indexes use MSCI ESG Climate Change Metrics to identify companies with fossil fuel reserves.

MSCI Global ex Fossil Fuels Indexes

Companies that have proved & probable coal reserves and/or oil and natural gas reserves used for energy purposes are excluded from the MSCI Global ex Fossil Fuels Indexes. Specifically, companies that meet the following criterion are excluded:

- Flagged for “Fossil Fuel Reserves – Energy Application”

MSCI Global ex Coal Indexes

Companies that have proved & probable coal reserves used for energy purposes are excluded from the MSCI Global ex Coal Indexes. Specifically, companies that meet both of the following criteria are excluded:

- Flagged for “Fossil Fuel Reserves – Energy Application”
- Flagged for “Evidence of Total Coal Reserves”

Description of factors used:

| Factor Name | Description |
|---|---|
| Fossil Fuel Reserves – Energy Application | This factor identifies companies, regardless of their industries, with evidence of owning fossil fuel reserves used most likely for energy applications. For high-intensity industries (belonging to Energy and Utilities GICS Sector & Diversified Metals & Mining GICS Sub-Industry), this factor flags companies with evidence of fossil fuel reserves (excluding Metallurgical Coal). For other industries, it flags companies with evidence of fossil fuel reserves (excluding |

| | |
|--|---|
| | <p>Metallurgical Coal) and deriving revenue from business segments associated with energy application of fossil fuels such as Thermal Coal mining, Oil & Gas exploration & production and downstream activities e.g. refining; distribution & retail; pipeline & transportation; trading and fossil fuel- based power generation. Fossil fuel reserves are defined as proved and probable reserves (i.e. 2P) for coal and proved reserves (i.e. 1P) for oil and natural gas. Evidence of owning reserves includes companies providing the exact volume of reserves, and companies making a statement about their ownership of reserves.</p> |
| <p>Evidence of Total Coal Reserves</p> | <p>This factor identifies companies that provide evidence of owning coal reserves, including those that own less than 50% of a reserves field. Evidence of owning reserves includes companies providing the exact volume of reserves, and companies making a statement about their ownership of reserves.</p> |

3.2.2 Missing Data

Companies not assessed by MSCI ESG Research on fossil fuel reserves data are not eligible for inclusion in the MSCI Global Fossil Fuels Exclusion Indexes.

4 Maintaining the MSCI Global Fossil Fuels Exclusion Indexes

4.1 Index Reviews

The MSCI Global Fossil Fuels Exclusion Indexes are reviewed on a quarterly basis to coincide with the regular Semi-Annual and Quarterly Index Reviews of the MSCI Global Investable Market Indexes. The changes are implemented as of the close of the last business day of February, May, August and November. At index reviews, all companies in the underlying universe are reviewed and eligible companies are added to the MSCI Global Fossil Fuels Exclusion Indexes. Existing constituents may be deleted from the MSCI Global Fossil Fuels Exclusion Indexes if they are identified as having fossil fuel reserves and are screened according to the criteria described in Section 3. Any constituent that is deleted from the Parent index as a result of an index review is also deleted from the MSCI Global Fossil Fuels Exclusion Indexes.

The pro forma MSCI Global Fossil Fuels Exclusion Indexes are generally announced nine business days before the effective date.

In general, MSCI uses MSCI ESG Research data (MSCI ESG Climate Change Metrics) as of the end of the month preceding the Index Reviews for the rebalancing of MSCI Global Fossil Fuels Exclusion Indexes. 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 MSCI Global Fossil Fuels Exclusion Indexes.

4.2 Ongoing Event-Related Maintenance

The following section briefly describes the treatment of common corporate events within the MSCI Global Fossil Fuels Exclusion Indexes.

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

There are no deletions from the Index between Index Reviews on account of a security identified as having fossil fuel reserves.

EVENT TYPE

EVENT DETAILS

New additions to the Parent Index

New securities added to the Parent Index (such as IPOs, other early inclusions and migrations from a different size-segment) will not be

added to the Index at the time of event implementation. Such securities will be considered for addition in the Index at the subsequent Index Review.

Spin-Offs

All securities created as a result of the spin-off of an existing Index constituent will not be added to the Index at the time of event implementation. Reevaluation for addition in the Index will occur at the subsequent Index Review.

Merger/Acquisition

If an existing Index constituent is acquired by a non-Index constituent, the existing constituent will be deleted from the Index and the acquiring non-constituent will not be added to the Index.

Changes in Security Characteristics

A security will continue to be an Index constituent if there are changes in characteristics (country, sector, size segment, etc.). Reevaluation for continued inclusion in the Index will occur at the subsequent Index Review.

Further detail and illustration regarding specific treatment of corporate events relevant to this Index can be found in the MSCI Corporate Events Methodology book.

The MSCI Corporate Events methodology book is available at:

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

The following sections have been updated as of August 2016:

Section 4: Maintaining the MSCI Global Fossil Fuels Exclusion Indexes

- Clarification on use of ESG data for securities whose data were published later than at the end of the month preceding Index Review.

The following sections have been updated as of May 2017:

Section 2: Screening Criteria

- Updated link to the MSCI ESG CarbonMetrics

Section 4.1: Index Reviews

- Updated to include the announcement date of the pro forma indexes.

The following sections have been updated as of December 2017:

Section 2: Screening Criteria

- Removed the last paragraph

Section 3.2: Exclusion Criteria

- Clarified the exclusion criteria for companies with fossil fuel reserves

The following sections have been updated as of November 2019:

Section 2: MSCI ESG Research

- Changed section name from “Screening Criteria”
- Added details on MSCI ESG Climate Change Metrics

Section 3.1: Underlying Universe

- Updated to refer to the MSCI Global Investable Market Indexes

Section 3.2: Screening Criteria

- Updated the fossil fuel reserves related criteria
- Added a sub-section on missing data

Section 3.3: Index Construction

- Removed the section

Section 4.2: Ongoing Event-Related Maintenance

- Clarified the treatment of different types of corporate events

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