

# MSCI Sharing Economy Index Methodology

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# 1 MSCI Sharing Economy Index

The MSCI Sharing Economy Index (the 'Index') aims to represent the performance of a set of companies that are associated with the development of new products and services that potentially replaces resource-intensive products or processes, all assessed within the context of potential contribution towards a circular economy (see Appendix I).<sup>1</sup>

In particular, the Index incorporates companies that provide technologies ("circular technologies"), as defined using the following measures:

- Sharing Economy
- Smart Mobility
- E-commerce
- Social Media
- Digital Payments
- Cloud Computing

The Index also applies exclusions criteria to screen companies with business activities that are not considered aligned with the overall objective of promoting sharing economy or circularity. Additionally, the Index utilizes a weighting strategy at security level, as well as applies issuer capping.

<sup>&</sup>lt;sup>1</sup> The Index is governed by a set of methodology and policy documents ("Methodology Set"), including the present index methodology document. The Methodology Set for the Index can be accessed from MSCI's webpage <a href="https://www.msci.com/index-methodology">https://www.msci.com/index-methodology</a> 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 Constructing the MSCI Sharing Economy Index

#### 2.1 Selection Universe

The underlying universe for the Index is defined by the constituents of the MSCI ACWI Investable Market Indexes (IMI, the 'Parent Index'2), from which two separate universes of stocks are constructed (as described in Sections 2.2 and 2.3).<sup>3</sup>

#### 2.2 ESG Filtered Universe

The Index applies two sets of exclusions criteria to determine eligibility in the ESG Filtered Universe.

#### 2.2.1 Sharing Economy-specific Exclusions

The Index uses MSCI ESG Controversies and MSCI Impact Solutions' SDG Alignment to identify companies that are assessed as negatively impacting the index objective. The criteria are as follows:

- Customer Privacy & Data Security Controversies
- SDG 9 Net Alignment

Please refer to Appendix II for details on these exclusions criteria.

#### 2.2.2 Circular Economy-related Screens

The Index uses MSCI ESG Controversies, MSCI ESG Ratings, MSCI ESG Business Involvement Screening Research, MSCI Climate Change Metrics, and MSCI Impact Solutions' SDG Alignment to apply a set of exclusions standards which either address headline risks and/or contribute negatively to a circular economy. The exclusions filters are as follows:

 ESG Controversies Score: All companies that are assessed as having involvement in ESG controversies that are classified as Red Flags (MSCI ESG Controversy Score of 0). A Red Flag indicates an ongoing, Very Severe ESG

<sup>&</sup>lt;sup>2</sup> Other parent indexes, as a subset of MSCI ACWI IMI, may also be used. However, use of some indexes as parent indexes may result in a low number of constituents, which may affect replicability.

<sup>&</sup>lt;sup>3</sup> Where ESG data is applied, please refer to Section 4 for further information regarding the ESG and climate data used in the Index 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



- controversy implicating a company directly through its actions, products, or operations.
- Environmental Controversies: All companies that are assessed as having involvement in environmental controversies that are classified as Red (MSCI Environmental Controversy Score of 0), Orange<sup>4</sup> (score of 1), or Yellow<sup>5</sup> Flags (scores 2 to 4).
- 3. **Environmental Pillar Quartile**: All companies that are assessed as belonging to the bottom quartile relative to their relevant ESG Ratings Industry.
- SDG 12 Net Alignment: All companies that are assessed as Strongly
  Misaligned and Misaligned on their Net Alignment to SDG 12 (Responsible
  Consumption and Production).
- 5. 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 Global Ex-Controversial Weapons Indexes available at <a href="https://www.msci.com/index-methodology">https://www.msci.com/index-methodology</a>.
- 6. Thermal Coal Mining: All companies deriving 5% or more revenue (either reported or estimated) 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), intracompany sales of mined thermal coal, and revenue from coal trading.

#### Notes on Unrated Securities or Securities with Missing Coverage:

- Companies that are not assessed on MSCI ESG Research's ESG Ratings and SDG Alignment (exclusion filters 3 and 4) are <u>not</u> excluded from the ESG Filtered Universe.

<sup>&</sup>lt;sup>4</sup> An Orange Flag indicates an ongoing Severe ESG controversy implicating a company directly, or a Very Severe ESG controversy that is either partially resolved or indirectly attributed to the company's actions, products, or operations.

<sup>&</sup>lt;sup>5</sup> A Yellow Flag indicates noteworthy ESG controversies. This includes a Very Severe or Severe ESG controversy that has been concluded, a Very Severe controversy that is partially resolved and is indirectly attributed to the company, a Severe controversy that is either partially resolved or indirectly attributed to the company, or an ongoing Moderate controversy implicating a company directly.



# 2.3 "Circular Technologies" Universe

The Circular Technologies Universe is constructed by selecting companies in the ESG Filtered Universe with relevance score of 25% or more from the shared mobility and internet economy themes, which consist of the following business activities:

- Sharing Economy
- Smart Mobility
- E-commerce
- Social Media
- Digital Payments
- Cloud Computing

For details of calculation of Relevance Scores, please refer to the MSCI Thematic Relevance Score Methodology document<sup>6</sup>. In addition, the GICS®<sup>7</sup> Sub-industry filter applied for the theme are outlined in Appendix III.

MSCI may seek input from outside market experts on the ongoing evolution of the themes underlying the index. However, such input is only advisory in nature. MSCI alone decides whether to use such input at all or to what extent. Receipt of such input, like any other feedback on MSCI indexes, may or may not lead to a change to the Index or index methodology.

# 2.4 Weighting Scheme

The Index constituents that are determined to be part of the Circular Technologies Universe are weighted as follows:

#### 2.4.1 Security Weighting

Circular Technologies

Securities that meet the selection criteria outlined in Section 2.3 are weighted by the product of the relevance score and their weight in the Parent Index. The weights are then normalized to sum to 100%.

 $\underline{\text{https://www.msci.com/eqb/methodology/meth\_docs/Relevance\_Score\_Calculation\_Methodology.pdf}}$ 

<sup>&</sup>lt;sup>6</sup> Please see

<sup>&</sup>lt;sup>7</sup> GICS, the global industry classification standard, jointly developed by MSCI Inc. and S&P Global.



## 2.4.2 Issuer Capping

The maximum weight of any issuer in the Index is then capped at 5% in accordance with the MSCI Capped Indexes methodology<sup>8</sup>. The excess weight of the capped issuers is distributed among the remaining constituents in proportion of their existing weights in the Index.

<sup>&</sup>lt;sup>8</sup> Please refer to the MSCI Capped Indexes methodology at <u>www.msci.com/index-methodology</u>



# 3 Maintaining the MSCI Sharing Economy Index

#### 3.1 Semi-Annual Index Review

The Index is reviewed on a semi-annual basis, as of the close of the last business day of May and November, coinciding with the May and November Index Reviews of the Parent Index. The pro forma index is generally announced nine business days before the effective date.

As a rule, MSCI uses Relevance Score data as of two business days prior to the rebalancing date of the Semi-Annual Index Review.

Moreover, MSCI uses MSCI ESG Research data (including MSCI SDG Alignment, MSCI ESG Ratings, MSCI ESG Controversies, 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.

At each Semi-Annual Index Review, the Selected Universe and ESG Filtered and Circular Technologies universes are updated based on the criteria outlined in Sections 2.2 and 2.3.

# 3.2 Quarterly Index Reviews

The Index is also reviewed on a quarterly basis to coincide with the regular Index Reviews of the Parent Indexes. The changes are implemented at the end of February and August. The pro forma indexes are generally announced nine business days before the effective date.

For the Quarterly Index Reviews, MSCI ESG Ratings, MSCI ESG Controversies, MSCI BISR, MSCI Climate Change Metrics, and MSCI SDG Alignment data are taken as of the end of the month preceding the Index Reviews, i.e., January and July. For some securities, this 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.

At the Quarterly Index Reviews, existing constituents are deleted from the Index if they do not meet the exclusions criteria described in Section 2.2. Existing constituents that meet the criteria are retained in the Index.

# 3.3 Ongoing Event-Related Maintenance

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.

There are no deletions from the Index between Index Reviews on account of a security becoming ineligible because of decrease in MSCI ESG Controversies Score, change in SDG Alignment assessment, and/or change in business involvement.

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 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** 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.

The MSCI Corporate Events methodology book is available at: <a href="https://www.msci.com/index-methodology">https://www.msci.com/index-methodology</a>.



## 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 Impact Solutions, 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 Impact Solutions: SDG Alignment

MSCI Impact Solutions' SDG Alignment is designed to provide a holistic view of companies' net contribution – both positive and negative – towards addressing each of the 17 UN Sustainable Development Goals (SDGs). SDG Alignment assessments and scores include analysis of companies' operations, products and services, policies, and practices and their net contribution – positive and adverse – to addressing key global challenges.

The MSCI SDG Alignment framework provides 17 SDG Net Alignment scores and 17 SDG Net Alignment assessments (including Strongly Aligned, Aligned, Neutral, Misaligned and Strongly Misaligned) for each of the 17 global goals. In addition, the model offers assessments and scores for two dimensions, product alignment and operation alignment, for each company and for each of the 17 goals.

For more details on MSCI Impact Solutions including MSCI SDG Alignment, please refer to <a href="https://www.msci.com/our-solutions/esg-investing/impact-solutions">https://www.msci.com/our-solutions/esg-investing/impact-solutions</a>.

# 4.2 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: <a href="https://www.msci.com/esg-and-climate-methodologies">https://www.msci.com/esg-and-climate-methodologies</a>.

#### 4.3 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: <a href="https://www.msci.com/esg-and-climate-methodologies">https://www.msci.com/esg-and-climate-methodologies</a>

# 4.4 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 <a href="http://www.msci.com/resources/factsheets/MSCI\_ESG\_BISR.pdf">http://www.msci.com/resources/factsheets/MSCI\_ESG\_BISR.pdf</a>

# 4.5 MSCI Climate Change Metrics

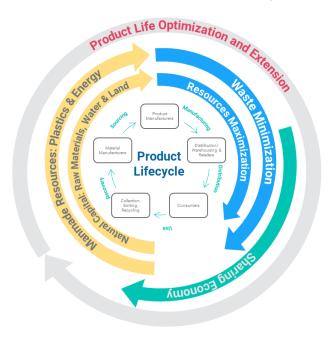
MSCI Climate Change Metrics provide climate data & tools to support institutional investors seeking to integrate climate risk & opportunities into their investment strategy and processes. This includes investors seeking to achieve a range of objectives, including measuring and reporting on climate risk 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 <a href="https://www.msci.com/climate-solutions">https://www.msci.com/climate-solutions</a>.



# **Appendix I: What is a Circular Economy?**



A circular economy is an economic system wherein resources are kept as long as possible within the system, whether by rethinking resource-intensive products and processes, maximizing the use of materials, extending the life of products, and/or recycling of waste materials. This is a structural shift from the current linear economy, where materials are taken, converted via a manufacturing process, used, and then disposed. Underlying to the concept of a circular economy are the 9R strategies, which provide a holistic view to improving circularity at each stage of a product's lifecycle.

For more information, please see the Circular Economy Theme Insight written by Rachel A. Meidl:

https://www.msci.com/documents/1296102/28401354/ThematicIndex-CircularEconomy-cbr-en.pdf

<sup>&</sup>lt;sup>9</sup> Circular Economy: Measuring Innovation in the Product Chain, *Policy Report by PBLK Netherlands Environmental Assessment Agency, (Potting, J., Hekkert, M., Worrell, E., Hanemaaijer, A.),* <a href="https://www.pbl.nl/sites/default/files/downloads/pbl-2016-circular-economy-measuring-innovation-in-product-chains-2544.pdf">https://www.pbl.nl/sites/default/files/downloads/pbl-2016-circular-economy-measuring-innovation-in-product-chains-2544.pdf</a>



# **Appendix II: Sharing Economy-specific Exclusions Criteria**

Companies are excluded based on the following MSCI ESG Controversies and MSCI Impact Solutions filters:

- Customer Privacy & Data Security Controversies
  - All companies that are assessed as having involvement in privacy and data security-related controversies that are classified as Red (MSCI Customer Privacy & Data Security Controversy Score of 0) or Orange Flags (score of 1).
- SDG 9 Net Alignment
  - All companies that are assessed as Strongly Misaligned and Misaligned on their Net Alignment to SDG 9 (Industries, Innovation, and Infrastructure).



# **Appendix III: Sharing Economy Relevance Score Calculation**

After identifying the stocks with high exposure to the identified business activities listed in Section 2.3 following the MSCI Thematic Relevance Score Methodology, the Circular Technologies Universe applies an additional filter, as follows:

## 1. GICS Sub-industry Filtering

Stocks mapped to the following GICS sub-industries are excluded from the Circular Technologies Universe:

GICS Sub-industry

	GICS Sector	GICS Sub-industry
10	Energy	10101020 Oil & Gas Equipment & Services
		<ul> <li>10102010 Integrated Oil &amp; Gas</li> </ul>
		<ul> <li>10102030 Oil &amp; Gas Refining &amp; Marketing</li> </ul>
		<ul> <li>20104020 Heavy Electrical Equipment</li> </ul>
		<ul> <li>20105010 Industrial Conglomerates</li> </ul>
	Industrials	<ul> <li>20106010 Construction Machinery &amp; Heavy</li> </ul>
20		Transportation Equipment
		<ul> <li>20201060 Office Services &amp; Supplies</li> </ul>
		20303010 Marine Transportation
		20305030 Marine Ports & Services
25	Consumer Discretionary	• 25301010 Casinos & Gaming
30	Consumer Staples	<ul> <li>30202030 Packaged Foods &amp; Meats</li> </ul>
40	Financials	<ul> <li>40203040 Financial Exchanges &amp; Data</li> </ul>
	Information Technology	<ul> <li>45102010 IT Consulting &amp; Other Services</li> </ul>
45		<ul> <li>45203030 Technology Distributors</li> </ul>
	reciliology	<ul> <li>45301010 Semiconductor Materials &amp; Equipment</li> </ul>
	Communication Services	<ul> <li>50101020 Integrated Telecommunication Services</li> </ul>
		50102010 Wireless Telecommunication Services
		• 50201010 Advertising
50		50201020 Broadcasting
		• 50201030 Cable & Satellite
		• 50201040 Publishing
		50202010 Movies & Entertainment
		50202020 Interactive Home Entertainment
55	Utilities	55101010 Electric Utilities
		55103010 Multi-Utilities
		55105010 Independent Power Producers & Energy
60	Real Estate	60108010 Other Specialized REITs
		60108020 Self Storage REITs
		60108030 Telecom Tower REITs
		• 60108040 Timber REITs



GICS Sector	GICS Sub-industry
	60108050 Data Center REITs



# **Appendix IV: Changes to this Document**

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

Section 3.3: "Circular Technologies" Universe

Updated to reference the MSCI Thematic Relevance Score Methodology.

Section 4.1: Semi-Annual Index Review

• Updated to reflect the data cutoff date for Relevance Scores.

#### The following sections have been modified as of June 1, 2023:

Section 3.2.2 and Appendix II: Circular Economy-related Screens

 The MSCI ESG Controversies-related criteria were updated to reflect the enhancement to the underlying MSCI ESG Controversies framework.

Section 4.1: Semi- Annual Index Review

- Methodology book was updated to reflect the transition of the MSCI Global Investable Market Indexes (GIMI) to Quarterly Comprehensive Index Reviews.
- All references to "Semi-Annual Index Reviews" and "Quarterly Index Reviews" of the MSCI GIMI were replaced with "Index Reviews."

Appendix III: Sharing Economy Relevance Score Calculation

Updated GICS sub-industry exclusions due to GICS structural changes.

#### The following sections have been modified as of November 2023:

The Methodology book was updated to re-organize the sections and clarify key components.

Section 4: MSCI ESG Research

 Moved the information regarding MSCI ESG Research from Section 2 to Section 4.



# **Contact us**

#### **AMERICAS**

clientservice@msci.com

Americas	1 888 588 4567 *
Atlanta	+ 1 404 551 3212
Boston	+ 1 617 532 0920
Chicago	+ 1 312 675 0545
Monterrey	+ 52 81 1253 4020
New York	+ 1 212 804 3901
San Francisco	+ 1 415 836 8800
São Paulo	+ 55 11 3706 1360
Toronto	+ 1 416 628 1007

#### **EUROPE, MIDDLE EAST & AFRICA**

Cape Town	+ 27 21 673 0100
Frankfurt	+ 49 69 133 859 00
Geneva	+ 41 22 817 9777
London	+ 44 20 7618 2222
Milan	+ 39 02 5849 0415
Paris	0800 91 59 17 *

#### **ASIA PACIFIC**

China North	10800 852 1032 *
China South	10800 152 1032 *
Hong Kong	+ 852 2844 9333
Mumbai	+ 91 22 6784 9160
Seoul	00798 8521 3392 *
Singapore	800 852 3749 *
Sydney	+ 61 2 9033 9333
Taipei	008 0112 7513 *
Thailand	0018 0015 6207 7181 *
Tokyo	+ 81 3 5290 1555

<sup>\* =</sup> toll free

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