

# MSCI CHINA ALL SHARES TECH SELECT ESG SCREENED 100 INDEX

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<b>Contents</b>	<b>1</b>	<b>Introduction</b>	<b>3</b>
	<b>2</b>	<b>MSCI ESG Research</b>	<b>4</b>
	2.1	MSCI ESG Ratings	4
	2.2	MSCI ESG Controversies Score	4
	2.3	MSCI ESG Business Involvement Screening Research	4
	<b>3</b>	<b>Constructing the Index</b>	<b>5</b>
	3.1	Eligible Universe	5
	3.2	Selected Universe	6
	3.3	Weighting scheme	7
	<b>4</b>	<b>Maintaining the Index</b>	<b>8</b>
	4.1	Semi-Annual Index Review	8
	4.2	Quarterly Index Review	8
	4.3	Ongoing event-related maintenance	8
		Appendix 1: Calculation of 3-Month Average Daily Traded Value (ADTV)	10
		Appendix 2: Controversial Business Exclusion Criteria	10

## 1 Introduction

The MSCI China All Shares Tech Select ESG Screened 100 Index aims to represent the performance of a set of companies associated with the development of new products and services from technology innovations leading to breakthroughs in areas such as internet and digitization, mobility, autonomous technology, industrial automation, and digital healthcare while excluding those involved in certain controversial businesses or with relatively low ESG Ratings.

## 2 MSCI ESG Research

The Index uses company ratings and research provided by MSCI ESG Research LLC. In particular, this index uses the following two MSCI ESG Research products: MSCI ESG Ratings and MSCI ESG Business Involvement Screening Research. For details on MSCI ESG Research’s full suite of ESG products, please refer to:

<https://www.msci.com/esg-investing>

### 2.1 MSCI ESG Ratings

MSCI ESG Ratings provides research, analysis and ratings of how well companies manage environmental, social and governance risks and opportunities.

MSCI ESG Ratings provides an overall company ESG rating - a seven-point scale from ‘AAA’ to ‘CCC’. In addition, the product provides scores and percentiles indicating how well a company manages each key issue relative to industry peers.

For more details on MSCI ESG Ratings, please refer to: <https://www.msci.com/esg-ratings>.

### 2.2 MSCI ESG Controversies Score

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.

For more details on MSCI ESG Controversies Score, please refer to: <https://www.msci.com/documents/10199/acbe7c8a-a4e4-49de-9cf8-5e957245b86b>

### 2.3 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](http://www.msci.com/resources/factsheets/MSCI_ESG_BISR.pdf)

### 3 Constructing the Index

The index is constructed by selecting stocks from MSCI China All Shares Index (the ‘Parent Index’) based on rules explained in the following sections.

The Index selects companies which are assessed to have high exposure to the following technology related business activities:

Internet	Mobility	Industrials	Health
<ul style="list-style-type: none"> <li>• Blockchain &amp; P2P</li> <li>• Cloud Computing</li> <li>• Crowdsourcing</li> <li>• Cybersecurity</li> <li>• E-commerce</li> <li>• Fintech</li> <li>• Internet of Things</li> <li>• Mobile &amp; Digital Payments</li> <li>• Robotics and Artificial Intelligence</li> <li>• Social Media</li> </ul>	<ul style="list-style-type: none"> <li>• Batteries</li> <li>• High speed transportation</li> <li>• Sharing Economy</li> <li>• Smart Mobility</li> <li>• Vehicular Automation</li> </ul>	<ul style="list-style-type: none"> <li>• 3D Printing</li> <li>• Alternate Energy Sources</li> <li>• Innovative Materials</li> <li>• Smart Infrastructure</li> <li>• Space Exploration</li> </ul>	<ul style="list-style-type: none"> <li>• Automated Diagnostics</li> <li>• Bioinformatics</li> <li>• Clinical Lab Automation</li> <li>• Healthcare Infotech</li> <li>• Medical Robotics</li> <li>• Telemedicine</li> <li>• Medical Device/ Instruments/ Materials</li> </ul>

MSCI may seek input from outside market experts on the ongoing evolution of the themes underlying the Index. However, such input is advisory only 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.

#### 3.1 Eligible Universe

All stocks in the Parent Index (as described in section 3) with Relevance Score<sup>1</sup> of 25% or more are included in the Eligible Universe. Further filtering is applied as detailed below.

##### 3.1.1 Liquidity Screening

Securities in the bottom quintile of the Parent Index by 3-month average daily trading value (3M ADTV) are excluded from the Eligible Universe. For the calculation of ADTV, please refer to Appendix 1.

<sup>1</sup> For details of calculation of Relevance Scores, please refer to the MSCI Thematic Relevance Score Methodology document.

### 3.1.2 Controversial Business Exclusion Criteria

Securities of companies involved in following businesses are excluded from the Eligible Universe:

- Controversial Weapons
- Conventional Weapons
- Nuclear Weapons
- Civilian Firearms
- Tobacco
- Fossil Fuel Extraction
- Thermal Coal Power
- UN Global Compact Violators

Please refer to Appendix 2 for more details on these criteria.

In addition to the above, companies that have an MSCI ESG Controversies Score of zero<sup>2</sup> are also excluded from the Eligible Universe.

### 3.1.3 ESG Rating

- ESG Rating = ‘CCC’ – Companies having an MSCI ESG Rating of ‘CCC’ are excluded from the Eligible Universe.
- Missing ESG Rating – Companies which are not rated by MSCI ESG Research for an MSCI ESG Rating are excluded from the Eligible Universe.<sup>3</sup>

## 3.2 Selected Universe

The top 100 issuers ranked by their market capitalization are selected. The issuer market capitalization is calculated by aggregating the security market capitalization of all securities of the issuer that are included in the Eligible Universe (as described in Section 3.1). All eligible securities in the Parent index from the 100 selected issuers are included in the final index.

If the number of issuers in the Eligible Universe is below 100, all the securities in the Eligible Universe are selected for inclusion in the index

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<sup>2</sup> The MSCI ESG Controversies Score screen will start to apply from the November 2022 Semi Annual Index Review.

<sup>3</sup> Exclusion of securities with missing ESG ratings is applied from June-2018 rebalance onwards due to low ESG Ratings coverage prior to 31-May-2018

### 3.3 Weighting scheme

Stocks in the Selected Universe are weighted by the product of Relevance Score and their free float adjusted market capitalization, which is calculated based on the Foreign Inclusion Factor (FIF) and subject to Foreign Ownership Limits (FOLs)<sup>4</sup>. The weights are then normalized to sum to 100%.

Additionally, constituent weights are capped at the issuer level to mitigate concentration risk in the index. The issuer weight in the index is capped at 4.5%<sup>5</sup>.

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<sup>4</sup> For China A-share constituents the inclusion factor will align with the Parent Index. For details, please refer to the Global Investable Market Indexes Methodology (Available on <https://www.msci.com/index-methodology>)

<sup>5</sup> For rebalances before November 2014, issuer capping of 10% is applied.

## 4 Maintaining the Index

### 4.1 Semi-Annual Index Review

The Index is reviewed on a Semi-Annual basis in May and November to coincide with the May and November Semi-Annual Index Reviews of the Parent Index, and the changes are implemented at the end of May and November. In general, the pro forma index is announced nine business days before the effective date.

During the Semi-Annual Index Review, the Eligible Universe, and Selected Universe are updated.

In general, MSCI uses MSCI ESG Research data (including MSCI ESG Controversies Scores and MSCI Business Involvement Screening Research) 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.

In general, MSCI uses Relevance Score data as of two business days before the rebalancing date for the Semi-Annual Index Review.

### 4.2 Quarterly Index Review

Issuer capping (as described in Section 3.3) is applied at each quarterly index review.

### 4.3 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.



**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 if the spin-off security is also added to the Parent Index. 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.

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

## Appendix 1: Calculation of 3-Month Average Daily Traded Value (ADTV)

$$ADTV = \frac{ATV}{252}$$

Where:

- ADTV = 3-month Average Daily Traded Value
- ATV = 3-month Annualized Traded Value

For details on the calculation of ATV, please refer to the MSCI Global Investable Market Indexes Methodology (<https://www.msci.com/index-methodology>).

## Appendix 2: Controversial Business Exclusion Criteria

Companies whose activities meet the following values and climate change-based criteria, as evaluated by MSCI ESG Research, are excluded from Index.

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), as defined by the methodology of the MSCI Ex-Controversial Weapons Indexes available at <https://www.msci.com/index-methodology>.
- Nuclear Weapons
  - All companies that manufacture nuclear warheads and/or whole nuclear missiles.
  - All companies that manufacture components that were developed or are significantly modified for exclusive use in nuclear weapons (warheads and missiles).
  - All companies that manufacture or assemble delivery platforms that were developed or significantly modified for the exclusive delivery of nuclear weapons.
  - All companies that provide auxiliary services related to nuclear weapons.

- All companies that manufacture components that were not developed or not significantly modified for exclusive use in nuclear weapons (warheads and missiles).
  - All companies that manufacture or assemble delivery platforms that were not developed or not significantly modified for the exclusive delivery of nuclear weapons.
  - All companies that manufacture components for nuclear-exclusive delivery platforms.
- Civilian Firearms
    - All companies classified as “Producer” of firearms and small arms ammunitions for civilian markets. It does not include companies that cater to the military, government, and law enforcement markets.
    - All companies deriving 5% or more revenue from the distribution (wholesale or retail) of firearms or small arms ammunition intended for civilian use.
  - Tobacco
    - All companies classified as a “Producer”
    - All companies deriving 5% or more aggregate revenue from the production, distribution, retail and supply of tobacco-related products.
  - Conventional Weapons
    - All companies deriving 5% or more revenue from the production of conventional weapons and components
    - All companies deriving 10% or more aggregate revenue from weapons systems, components, and support systems and services

Climate Change- based Exclusions Criteria:

- Fossil Fuel Extraction
  - All companies deriving 5% or more 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.
- Thermal Coal Power Generation
  - All companies deriving 5% or more revenue (either reported or estimated) from the thermal coal based power generation.
- Global Norms – United Nations Global Compact Compliance
  - All companies that fail to comply with the United Nations Global Compact principles.
  - Companies which are not rated by MSCI ESG Research on United Nations Global Compact principles

**The following sections have been modified since January 2022:**

- The role of experts in constructing the Index
- The set of relevant words and phrases
- Calculating the stock Relevance Score

**The following sections have been modified effective June 1, 2022:**

- Section 3 has been updated to reference the MSCI Thematic Relevance Score Methodology
- Section 4 has been updated to reflect the data cutoff date for Relevance Scores
- Section 1.2 and Appendix 2 have been updated to reflect changes in ESG Screening Criteria

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