

MSCI ACWI IMI AUTONOMOUS TECHNOLOGY & INDUSTRIAL INNOVATION INDEX

November 2022

Contents			
	1	Introduction	3
	2	Constructing the Index	4
	2.1	Selected Universe	5
	2.2	Weighting scheme	6
	3	Maintaining the Index	7
	3.1	Semi-Annual Index Review	7
	3.2	Ongoing event-related maintenance	7
		Appendix 1: Constructing the Parent Index	9
		Eligible Universe for Parent Index	9
		Selected Universe for Parent Index	10
		Date of Data Used for Semi-Annual Index Review	10
		Semi-Annual Index Reviews	10
		Ongoing Event Related Changes	10

1 Introduction

The MSCI ACWI IMI Autonomous Technology & Industrial Innovation Index (the 'Index'), developed in collaboration with ARK Invest, aims to represent the performance of a set of companies associated with the development of new products and services as a result of technological innovation in industrial automation, manufacturing, transportation, energy usage, energy storage, energy production as well as in artificial intelligence and machine learning.

2 Constructing the Index

The Index is constructed by selecting stocks from a ‘Parent Index’¹ based on rules explained in the following sections.

The Index selects companies which are assessed to have high exposure to business activities such as –

- Vehicle Automation
- Robotics
- Batteries
- 3D Printing
- Smart Infrastructure
- Alternate Energy Sources
- Innovative Materials
- Space Exploration
- Machine Learning & AI

MSCI may seek input from ARK Invest 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.

¹ Please refer to Appendix 1 for the methodology of the Parent Index. Use of some indexes as Parent Indexes may result in a low number of constituents, which may affect replicability

2.1 Selected Universe

Stocks in the Parent Index that are mapped to the following GICS® sub-industries and have a Relevance Score² of 50% or more are included in the Selected Universe.

No.	GICS® Sector	GICS® Sub-Industries
1	Information Technology	<ul style="list-style-type: none"> IT Consulting & Other Services
2	Industrials	<ul style="list-style-type: none"> Construction Machinery & Heavy Trucks Human Resource & Employment Services Air Freight & Logistics Heavy Electrical Equipment

All other stocks in the Parent Index that have a Relevance Score of 25% or more are included in the Selected Universe. Further filtering is applied to these stocks as shown below.

² For details of calculation of Relevance Scores, please refer to the MSCI Thematic Relevance Score Methodology document.

2.1.1 GICS^{®3} sector and sub industry filtering

Stocks which have a Relevance Score of 25% or more and are mapped to the following GICS sub-industries are excluded from the Selected Universe.

No.	GICS [®] Sector	GICS [®] Sub-Industries
1	Energy	<ul style="list-style-type: none"> Oil & Gas Equipment & Services Oil & Gas Refining & Marketing
2	Materials	<ul style="list-style-type: none"> Diversified Chemicals Fertilizers & Agricultural Chemicals Construction Materials Aluminum
3	Industrials	<ul style="list-style-type: none"> Commercial Printing Office Services & Supplies Marine Railroads Marine Ports & Services
4	Consumer Staples	<ul style="list-style-type: none"> Food Distributors Household Products
5	Financials	<ul style="list-style-type: none"> Consumer Finance
6	Information Technology	<ul style="list-style-type: none"> Data Processing & Outsourced Services Electronic Manufacturing Services
7	Utilities	<ul style="list-style-type: none"> Multi-Utilities Independent Power Producers & Energy Traders

2.2 Weighting scheme

Stocks included in the Index are weighted by the product of Relevance Score and their float adjusted market capitalization. The weights are then normalized 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 5%.

³ GICS, the global industry classification standard jointly developed by MSCI and S&P Global.

3 Maintaining the Index

3.1 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 Selected Universe is updated.

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

3.2 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: Constructing the Parent Index

Eligible Universe for Parent Index

The index is constructed from an eligible universe which is a composite of:

- ACWI IMI Universe:**
 ACWI IMI universe is constructed by selecting all equity securities in MSCI ACWI Investable Market Index (IMI) constructed according to the MSCI Global Investable Market Indexes Methodology
- Extended Universe:**
 Extended universe is constructed by selecting all equity securities that are listed on eligible US exchanges⁴ according to the MSCI Global Investable Market Indexes Methodology and meet the following eligibility criteria:

Eligibility criteria

	New Constituents	Existing Constituents	Level
Full Market Capitalization	US IMI Market Size-Segment Cutoff ⁵	US IMI Market Size-Segment Cutoff	Company Level
Free Float Adjusted Market Capitalization	50% of IMI Market Size-Segment Cutoff	50% of IMI Market Size-Segment Cutoff	Security Level
3M or 1M ATVR	30%	10%	Security Level
3M or 1M FoT	100%	95%	Security Level
Foreign Inclusion Factor	>= 0.15, except if FIF adjusted market capitalization >= 2 times the FIF adjusted market capitalization cut-off		Security Level

Further all preferred share classes of US listed securities are deleted from the Extended universe.

All securities included in the Extended Universe are weighted in proportion of their free float-adjusted market capitalization.

⁴ New York Stock Exchange (NYSE), NASDAQ, NYSE American, NYSE Arca, BATS Exchange (BZX)

⁵ For a description of the US IMI Market Size-Segment Cutoff, please refer to the MSCI Global Investable Market Indexes Methodology.

Securities for which MSCI's country of classification is "Russia" are ineligible for inclusion in the Extended Universe.

Selected Universe for Parent Index

The selected universe is constructed by combining all securities in the ACWI IMI universe and the Extended universe. For every issuer in the selected universe, the local listed security (listed outside US) is deleted in favor of the US listed security of the same issuer. The weights are then normalized to sum to 100%.

Date of Data Used for Semi-Annual Index Review

The data cutoff dates for Semi-Annual Index Reviews are:

- Market capitalization, prices and FIF Cutoff Date: nine business days before the end of February, May, August and November.
- ATVRs and Frequency of Trading Cutoff Date: the last business day of March for the May SAIR and the last business day of September for the November SAIR.

Semi-Annual Index Reviews

The Parent 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.

Ongoing Event Related Changes

The following section briefly describes the treatment of common corporate events for the constituents of the Parent Index which are also part of the Extended universe.

The constituents of the Parent Index which are also constituents of the MSCI ACWI IMI index will follow the same corporate event treatment as the standard MSCI Country and World IMI indexes as per the MSCI GIMI Methodology.

Constituents of the Parent Index that are under prolonged suspension are deleted from the Parent Index. If the suspended security is also a constituent of the MSCI ACWI IMI, the security will be deleted from the Parent Index two business days following 50 business days of continuous suspension. Otherwise, the deletion of the suspended security will be implemented two business days following 100 days of continuous suspension. Securities under prolonged suspension are deleted using the

lowest system unit (0.00001 of the security's price currency), also known as the lowest system price.

No new securities will be added (except the securities added to the MSCI ACWI IMI index) to the Parent Index between Index Reviews.

The following sections have been modified since April 2020:

- Ongoing Event Related Changes for the Parent Index in Appendix 1 has been updated to reflect the refinement of the suspension treatment in Corporate events maintenance rules

The following sections have been modified since January 2022:

- Introduction
- 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 since March 9, 2022

- Eligibility criteria updated in Appendix 1, reflecting change in market classification of Russia to Standalone

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

- Section 2 has been updated to reference the MSCI Thematic Relevance Score Methodology
- Section 3 has been updated to reflect the data cutoff date for Relevance Scores

The following sections have been modified effective November 2022:

- Appendix 1 is updated with additional clarification on the weighting of securities in Parent Index

Contact us

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

AMERICAS

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

* = 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 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 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 investible assets/securities. MSCI maintains and calculates indexes, but does not manage actual assets. 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 www.msci.com.

MSCI ESG Research LLC is a Registered Investment Adviser under the Investment Advisers Act of 1940 and a subsidiary of MSCI Inc. Except with respect to any applicable products or services from MSCI ESG Research, 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 intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. Issuers mentioned or included in any MSCI ESG Research materials may include MSCI Inc., clients of MSCI or suppliers to MSCI, and may also purchase research or other products or services from MSCI ESG Research. 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.

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, reports and ratings based on published methodologies and available to clients on a subscription basis. We do not provide custom or one-off ratings or recommendations of securities or other financial instruments upon request.

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>.