

MSCI MARKET CLASSIFICATION FRAMEWORK

June 2019



MSCI Market Classification Framework

The classification of markets is a key input in the process of index construction as it drives the composition of the investment opportunity sets to be represented. The approach used by MSCI aims to reflect the views and practices of the international investment community by striking a balance between a country's economic development and the accessibility of its market while preserving index stability.

The MSCI Market Classification Framework consists of following three criteria: economic development, size and liquidity as well as market accessibility.

In order to be classified in a given investment universe, a country must meet the requirements of all three criteria as described in the table below:

Criteria	Frontier	Emerging	Developed
A Economic Development A.1 Sustainability of economic development	No requirement	No requirement	Country GNI per capita 25% above the World Bank high income threshold* for 3 consecutive years
B Size and Liquidity Requirements B.1 Number of companies meeting the following Standard Index criteria Company size (full market cap)** Security size (float market cap)** Security liquidity	2	3	5
	USD 776 mm	USD 1,551 mm	USD 3,102 mm
	USD 61 mm	USD 776 mm	USD 1,551 mm
	2.5% ATVR	15% ATVR	20% ATVR
C Market Accessibility Criteria C.1 Openness to foreign ownership C.2 Ease of capital inflows / outflows C.3 Efficiency of operational framework C.4 Availability of Investment Instrument C.5 Stability of the institutional framework	At least some	Significant	Very high
	At least partial	Significant	Very high
	Modest	Good and tested	Very high
	High	High	Unrestricted
	Modest	Modest	Very high

^{*} High income threshold for 2018: GNI per capita of USD 12,056 (World Bank, Atlas method)

The economic development criterion is only used in determining the classification of Developed Markets while that distinction is not relevant between Emerging and Frontier Markets given the very wide variety of development levels within each of these two universes.

The size and liquidity requirements are based on the minimum investability requirements for the MSCI Global Standard Indexes.

Market accessibility aims to reflect international institutional investors' experience of investing in a given market and as a result, this criterion includes several sub-criteria. These criteria are generally based on qualitative measures that are reviewed for all markets at least once a year during the MSCI Global Market Accessibility Review.

^{**} Minimum in use for the May 2019 Semi-Annual Index Review, updated on a semi-annual basis



MSCI regularly reviews the market classification of all countries included in the MSCI Indexes to ensure that they remain reflective of the evolution of the different markets. In particular, changes in the assessments under the classification framework serve as the basis for determining the markets that will be reviewed for potential market reclassification as part of the Annual Market Classification Review.

MSCI will only consider markets for upgrade if a change in classification status can be viewed as irreversible. Every June, MSCI will communicate its conclusions from the discussions with the investment community on the list of countries under review and announce the new list of countries, if any, under review for potential market reclassification in the upcoming cycle. While adhering to the regular time line for such communication helps provide greater predictability and is less disruptive to a market's normal functioning, MSCI may from time to time exercise prudent discretion and consider off-cycle communications should significant market events take place outside the regular review cycle.



Market Accessibility Measures

Openness to foreign ownership

Investor qualification requirement Existence of qualifying conditions for international investors. Existence of a level playing field for all international investors.

Foreign ownership limit (FOL) level Proportion of the market being accessible to non-domestic investors.

Foreign room level Proportion of shares still available for non-domestic investors. Existence of a foreign board where non-domestic investors could trade with

Equal rights to foreign investors Equal economic and voting rights as well as availability of information in English. Equal rights for minority shareholders.

Ease of capital inflows / outflows

Capital flow restriction level Existence of restriction on inflows and outflows of foreign capital to/from the local stock market (excluding foreign currency exchange

restrictions

Foreign exchange market liberalization level Existence of a developed onshore and offshore foreign exchange market.

Efficiency of the operational framework

Market entry

Investor registration & account set up

Existence/level of complexity of registration requirements for international investors such as Tax IDs as well as ease/complexity for setting

up local accounts (e.g., documents to be provided, approvals required). The time to complete the process includes the preparation of the

Definition

documents.

Market organization

Market regulations Level of advancement of the legal and regulatory framework governing the financial market, the stock exchange and the various other

entities involved in the financial markets, an important weight is assigned to: ease of access (including in English), lack of ambiguity and

Information flow

Timely disclosure of complete stock market information items (e.g., stock exchange alerts, corporate news, float information, dividend

information) in English and under reasonable commercial terms.

Market infrastructure

Clearing and Settlement Well functioning clearing and settlement system based on the broad framework published by the Bank for International Settlements including

Delivery Versus Payment (DVP), the absence of pre-funding requirements/practices and the possibility to use overdrafts. Availability of real

Custody Level of competition amongst local custodian banks as well as the presence of global custodian banks. Existence of an efficient mechanism

that prevents brokers to have unlimited access to the investor's accounts and guarantees the safekeeping of its assets.

Registry / Depository Well functioning central registry or independent registrars and a central depository.

Trading Level of competition amongst brokers ensuring high quality services (e.g., cost efficient trading, ability to execute grouped trades at the

same price for the various accounts of a fund manager).

Transferability Possibility of off-exchange transactions and "in-kind" transfers.

Stock lending Existence of a regulatory framework as well as an efficient mechanism allowing extensive use of stock lending.

Short selling Existence of a regulatory and practical framework allowing short selling.

Stability of institutional framework

Basic institutional principles such as the rule of law and its enforcement as well as the stability of the "free-market" economic system. Track

record of government intervention with regards to foreign investors.



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

^{* =} toll free

ABOUT MSCI

MSCI is a leader provider of critical decision support tools and services for the global investment community. With over 45 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 please visit more, www.msci.com.



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 redisseminated in whole or in part without prior written permission from MSCI

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 Standard & Poor's. "Global Industry Classification Standard (GICS)" is a service mark of MSCI and Standard & Poor's.

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 ESG Research LLC collects and uses personal data concerning officers and directors, please refer to our Privacy Notice at https://www.msci.com/privacy-pledge.