

MSCI WORKFORCE GENDER DIVERSITY DATA METHODOLOGY

MSCI ESG Research

May 2023

Contents

- Introduction.....3
- Methodology3
 - Workforce gender diversity performance..... 4
 - Performance metrics 4
 - Performance metric scores..... 5
 - Workforce gender diversity performance disclosure discount..... 8
 - Workforce gender diversity performance score 9
 - Workforce gender diversity practices..... 10
 - Practices metrics 10
 - Workforce gender diversity practices score 10
 - Workforce gender diversity score 11
- Publication updates and quality review 11
 - Data collection process 11
 - Ongoing updates of data 11
 - Coverage..... 12
- History of updates 12
- Data dictionary 12

INTRODUCTION

The MSCI Workforce Gender Diversity data set provides data and an aggregated assessment of companies' workplace gender diversity. Currently, this data set is available for the top 700 Japanese companies by market capitalization¹ (referred to hereafter as "universe").

METHODOLOGY

Attraction, retention, and promotion are the core elements of the employment cycle and key focus areas for any company looking to increase its effective utilization of talent. We focus on these three key elements to evaluate a company's support for women's participation and advancement in the workforce. This methodology relies on publicly available data, including company-reported information on women's representation in the workforce (Performance) and workforce diversity policies (Practices). The aggregated Gender Diversity Score is a weighted average of a company's Gender Diversity Performance Score (75% weight) and Gender Diversity Practices Score (25% weight)

¹ Data as of November 2022

Exhibit 1: Workforce gender diversity scoring methodology summary

Gender Diversity Score		
Gender Diversity Performance Score (weight: 75%)		Gender Diversity Practices Score (weight: 25%)
<i>Gender Diversity Performance Interim Score:</i>	<i>Gender Diversity Performance Disclosure Discount:</i>	<i>Gender Diversity Practices Score:</i>
<i>Average of 5 performance metrics score</i>	<i>Deduction to Interim Performance Score based on availability of 5 metrics</i>	<i>Average of 2 policies and programs metrics scores</i>

WORKFORCE GENDER DIVERSITY PERFORMANCE

The underlying data for assessing company’s workforce gender diversity performance is based around the core elements of attraction, retention, and promotion. The details of the underlying data are available in the Data Dictionary section of this document and the metrics derived from the underlying data are described below.

PERFORMANCE METRICS

Attraction

- Percentage of women employees among new hires²
- Percentage of women employees in total workforce

Retention

- Percentage difference in average employment years for female and male employees³

Promotion

² Hires of the past year. We include new graduate and mid-career employment, but do not include re-employment.

³ $(\text{Average employment years for female employees} - \text{Average employment years for male employees}) / \text{Average employment years for male employees}$

- Percentage of women in senior management⁴
- Percentage of women directors on the board of directors

PERFORMANCE METRIC SCORES

For each of the five performance metric scores, we use the performance metrics (as mentioned above) disclosed by companies in the universe and compute their percentile ranking (0-100) based on the latest available data.⁵ A 0 to 10 score is assigned to each decile, with a score of 1 corresponding to the first decile and a score of 10 corresponding to the top decile. See Exhibit 2 for an example of the conversion process from metric to score.

Exhibit 2: Percentile ranges and corresponding 0-10 scores for each of the five Performance Metrics.

Performance Metric: Percentage of women employees among new hires

Percentage of women employees among new hires	Percentile range	Score
0	0	0
>=0.01 to <16.7	>=10 to <20	1
>=16.7 to <19.8	>=20 to <30	2
>=19.8 to <23.6	>=30 to <40	3
>=23.6 to <27.0	>=40 to <50	4
>=27.0 to <31.1	>=50 to <60	5
>=31.1 to <36.9	>=60 to <70	6
>=36.9 to <43.5	>=70 to <80	7
>=43.5 to <53.6	>=80 to <90	8
>=53.6 to <100.0	>=90 to <100	9
>=100.0	>=100	10

⁴ Following the guidance by the Ministry of Health, Labour and Welfare (<https://www.mhlw.go.jp/content/11900000/000496301.pdf>), we define senior management as positions at equal or higher than “Kacho” (head of a department), excluding “Yakuin”. “Yakuin” here includes not only statutory positions such as directors of the board and auditors, but those that have similar job description and responsibilities, which may include “Shikkoyakuin”.

⁵ The most recent year can be different between percentage of women directors and the other performance metrics due to the difference in the data update.

Performance Metric: Percentage of women employees in total workforce

Percentage of women employees in total workforce	Percentile range	Score
0	0	0
>=0.01 to <13.4	>=10 to <20	1
>=13.4 to <16.0	>=20 to <30	2
>=16.0 to <18.7	>=30 to <40	3
>=18.7 to <22.0	>=40 to <50	4
>=22.0 to <27.0	>=50 to <60	5
>=27.0 to <31.6	>=60 to <70	6
>=31.6 to <38.6	>=70 to <80	7
>=38.6 to <48.0	>=80 to <90	8
>=48.0 to <92.3	>=90 to <100	9
>=92.3	>=100	10

Performance Metric: Percentage difference in average employment years for female and male employees

Percentage difference in average employment years for female and male	Percentile range	Score
-100.0	0	0
>=-99.9 to <-32.1	>=10 to <20	1
>=-32.1 to <-26.0	>=20 to <30	2
>=-26.0 to <-22.1	>=30 to <40	3
>=-22.1 to <-18.1	>=40 to <50	4
>=-18.1 to <-13.2	>=50 to <60	5
>=-13.2 to <-8.6	>=60 to <70	6
>=-8.6 to <-3.4	>=70 to <80	7
>=-3.4 to <4.7	>=80 to <90	8
>=4.7 to <136.5	>=90 to <100	9
>=136.5	>=100	10

Performance Metric: Percentage of women in senior management

Percentage of women in senior management	Percentile range	Score
0	0	0
>=0.01 to <2.8	>=10 to <20	1
>=2.8 to <3.7	>=20 to <30	2
>=3.7 to <4.7	>=30 to <40	3
>=4.7 to <6.0	>=40 to <50	4
>=6.0 to <7.9	>=50 to <60	5
>=7.9 to <10.5	>=60 to <70	6
>=10.5 to <15.1	>=70 to <80	7
>=15.1 to <20.0	>=80 to <90	8
>=20.0 to <50.0	>=90 to <100	9
>=50.0	>=100	10

Performance Metric: Percentage of women directors on the board

Percentage of women directors on the board	Percentile range	Score
0	0	0
>=0.01 to <8.3	>=10 to <20	1
>=8.3 to <10.0	>=20 to <30	2
>=10.0 to <11.1	>=30 to <40	3
>=11.1 to <12.5	>=40 to <50	4
>=12.5 to <15.4	>=50 to <60	5
>=15.4 to <18.2	>=60 to <70	6
>=18.2 to <22.2	>=70 to <80	7
>=22.2 to <27.3	>=80 to <90	8
>=27.3 to <50.0	>=90 to <100	9
>=50.0	>=100	10

Note: The percentile band ranges are based on the data as of November 2022.

A simple average of all scores available for each company results in the **Gender Diversity Performance Interim Score**. The next step is to calculate the disclosure discount.

WORKFORCE GENDER DIVERSITY PERFORMANCE DISCLOSURE DISCOUNT

To limit the influence of companies reporting only selective, positive statistics, a disclosure discount is applied to the Gender Diversity Performance Interim Score. The disclosure discount is determined based on the number of gender diversity performance metrics disclosed by the company. The highest possible discount is 20% in cases where only one performance metric is disclosed (Exhibit 3).

Exhibit 3: Level of disclosure discount applicable based on availability of performance metrics

Number of performance metrics disclosed (out of 5)	Percentage deduction applied to workforce gender diversity performance interim score
1	20%
2	15%
3	10%
4	5%
5	0%

WORKFORCE GENDER DIVERSITY PERFORMANCE SCORE

The Workforce Gender Diversity Performance Score is calculated by subtracting the Workforce Gender Diversity Performance Disclosure Discount from the Workforce Gender Diversity Performance Interim Score. See Exhibit 4 for two examples of this discounting process.

Exhibit 4: Example of Workforce Gender Diversity Performance Score Calculations

Performance Metrics	Company A (Financials)			Company B (Health Care)		
	Metric Value	Peren tile	Score	Metric Value	Peren tile	Score
Percentage of Women Employees in New Hires	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Percentage of Women Employees in Total Workforce	48%	80%	9	n.a.	n.a.	n.a.
Percentage Difference in Average Employment Years for Female to Male Employees	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Percentage of Women in Senior Management	50%	90%	10	n.a.	n.a.	n.a.
Percentage of Women Directors on the Board	22.2%	70%	8	11.1%	30%	4
Gender Diversity Performance Interim Score	9			4		
Gender Diversity Performance Disclosure Discount	10%	-	0.9	20%	-	0.8
Gender Diversity Performance Score (Interim Score - Disclosure Discount)	8.1			3.2		

WORKFORCE GENDER DIVERSITY PRACTICES

While quantitative figures are useful to measure women representation in companies’ workforces, they provide no indication of efforts or intent to improve diversity. The methodology also considers qualitative factors to measure the strength of companies’ gender diversity practices.

PRACTICES METRICS

We examine the existence of workforce diversity policies, management oversight responsibility for diversity, targets for improvement in women’s representation and programs that make it easier for women to work – such as flexible working arrangements, subsidized childcare and parental leave. We use the following two qualitative factors in our assessment of gender diversity practices:

1. Workforce diversity policy and management oversight
2. Programs to increase workforce diversity

WORKFORCE GENDER DIVERSITY PRACTICES SCORE

Each assessment is assigned a score of 0-10 based on a company’s disclosure of its policies and programs to empower women in the workforce. The aggregated Workforce Gender Diversity Practices Score is a simple average of the two practices metrics scores. An example of the score calculation is illustrated in Exhibit 5.

Exhibit 5: Example of workforce gender diversity practices score calculations

Practices Metrics	Company A (Financials)		Company B (Health Care)	
	Metric Value	Score	Metric Value	Score
Workforce diversity policy and management oversight	<i>Senior executive or higher level of oversight on diversity performance</i>	5	<i>Employee training on diversity policy</i>	5
Programs to increase workforce diversity	<i>Provides material benefits to facilitate diversity and inclusion</i>	5	<i>No evidence</i>	0
Practices Score (average of two Practices Metrics)	5		2.5	

WORKFORCE GENDER DIVERSITY SCORE

The company’s Workforce Gender Diversity Score is computed as the weighted average of the Workforce Gender Diversity Performance Score (75%) and Workforce Gender Diversity Practices Score (25%). See Exhibit 6 for an example of this calculation.

Exhibit 6: Example of workforce gender diversity score calculation

Score	Company A (Financials)	Company B (Health Care)
Gender Performance Score (weight: 75%)	8.1	3.2
Gender Diversity Practices Score (weight: 25%)	5.0	2.5
Gender Diversity Score	7.3	3.0

PUBLICATION UPDATES

DATA COLLECTION PROCESS

MSCI ESG Research collects a wide range of publicly available data from both company-reported and government data sources, and we standardize data, by converting performance metrics to a performance score based on percentile range. We do not use estimated data. Quantitative data is only used if it pertains exclusively to all operations in Japan.⁶ The following sources are used in the Workforce Gender Diversity data set:

- The Database on Promotion of Women’s Participation and Advancement in the Workplace, maintained by the Ministry of Health, Labour and Welfare
- Corporate documents such as annual reports, corporate social responsibility reports, securities filings, and company websites
- Major news publications globally, including local-language sources

⁶ For holding companies whose primary business is controlling other companies and fulfilling headquarters function, we only consider gender diversity data which covers at least one domestic subsidiary in addition to the holding company. For non-holding companies, domestic data prepared on a non-consolidated basis may be used if consolidated domestic data is not available.

ONGOING MONITORING AND UPDATES OF DATA

Generally, board director data is obtained by MSCI ESG Research on an ongoing basis and therefore we reflect updates to companies' board directors. Company data from the Ministry of Health, Labour and Welfare and company disclosure is usually obtained between December and February and published by MSCI ESG Research in April, annually.

COVERAGE

As of February 2023, Gender Diversity data covered the top 700 Japanese companies by market capitalization (as of Nov. 2022).

HISTORY OF UPDATES

Date	Update	Description
July 3, 2017	Product launch	Launch of MSCI Workforce Gender Diversity data
July 1, 2019	Coverage expansion	Coverage expansion to the top 700 Japanese companies by market capitalization
March 20, 2023	Methodology enhancements	Updated the percentile band ranges and corresponding scores for all performance metrics using data as of March 2023.

DATA DICTIONARY

Factor Type	Factor Name	Factor Description
Underlying Data	Year	This date represents the year of captured gender diversity data
Underlying Data	Number of Women Employees in New Hires	This data represents number of women employees in new hires
Underlying Data	Total Number of Newly Hired Employees	This data represents total number of newly hired employees

Underlying Data	Percentage of Women Employees in New Hires	This data represents percentage of women employees in new hires
Score	Score: Percentage of women employees in new hires	This score measures company's performance on level of hiring women employees in its workforce (Score 0-10, 10 indicates companies with the highest percentages of women among new hires)
Underlying Data	Average Years Employed by the Company for Female Employees	This data represents the average number of years for female employees employed by the company
Underlying Data	Average Years Employed by the Company for Male Employees	This data represents the average number of years for male employees employed by the company
Underlying Data	Percentage Difference in Average Employment Years for Female to Male Employees	This data represents the percentage difference in average employment years for female to male employees
Score	Score: Percentage difference in average employment years for female to male employees	This score measures company's performance on average employment years for female employees as compared to male employees (Score 0-10, 10 indicates companies where the difference in average employment years of female and male employees is lowest)
Underlying Data	Number of Women Employees in Workforce	This data represents the total number of women employees in the workforce
Underlying Data	Total Workforce	This data represents the total number of employees in the workforce
Underlying Data	Percentage of Women Employees in Total Workforce	This data represents the percentage of women employees in total workforce
Score	Score: Percentage of women employees in total workforce	This score measures company's performance on level of women employees in total workforce (Score 0-10, 10 indicates companies with the highest percentages of women employees in total workforce)
Underlying Data	Number of Women in Senior Management	This data represents the total number of women employees in senior management (managers and above)
Underlying Data	Total Number of Employees in Senior Management	This data represents the total number of employees in senior management (managers and above)

Underlying Data	Percentage of Women in Senior Management	This data represents the percentage of women employees in senior management (managers and above)
Score	Score: Percentage of women in senior management	This score measures company's performance on level of women employees in senior management (managers and above) (Score 0-10, 10 indicates companies with the highest percentages of women employees in senior management)
Underlying Data	Number of Women Directors on the Board	This data represents the number of women directors on the board
Underlying Data	Total Number of Directors on the Board	This data represents the total number of director on the board of directors
Underlying Data	Percentage of Women Directors on the Board	This data represents the percentage of women directors on the company's board of directors
Score	Score: Percentage of women directors on the board	This score measures company's performance on level of women directors on the board of directors (Score 0-10, 10 indicates companies with the highest percentages of women directors in the board)
Score	Gender Diversity Performance Interim Score	Assesses company's performance on disclosed gender diversity metrics, derived as a simple average of 5 sub-factor scores (1) Score: Percentage of women employees in new hires, (2) Score: Percentage difference in average employment years for female to male employees, (3) Score: Percentage of women employees in total workforce, (4) Score: Percentage of women in senior management, and (5) Score: Percentage of women directors on the board (Score 0-10)
Underlying Data	Gender Diversity Disclosure Level	This data measures the percentage of gender diversity performance metrics disclosed by the company based on availability of the 5 sub-factors (1) Percentage of Women Employees in New Hires, (2) Percentage Difference in Average Employment Years for Female to Male Employees, (3) Percentage of Women Employees in Total Workforce, (4) Percentage of Women in Senior Management, and (5) Percentage of Women Directors on the Board

Score	Gender Diversity Performance Disclosure Discount	This score measures the discount to be applied to the Gender Diversity Performance Interim Score in proportion to the number of diversity metrics disclosed by the company. Higher the number of performance metrics disclosed, lower the Gender Diversity Performance Disclosure Discount (Score 0-2)
Score	Gender Diversity Performance Score	Assesses company performance incorporating disclosure discount (for non-disclosed performance metrics), derived as a simple subtraction of 2 sub-factors (1) Gender Diversity Performance Interim Score, and (2) Gender Diversity Performance Disclosure Discount (Score 0-10)
Underlying Data	Workforce Diversity Policy and Management Oversight	This qualitative data points indicates our assessment of company's diversity policy and oversight by (1) providing its employees training on its diversity policy, and (2) senior executive or higher level of oversight on diversity performance (Qualitative assessment)
Underlying Data	Programs to Increase Workforce Diversity	This qualitative data points indicates our assessment of company's programs to increase workforce diversity by (1) providing material benefits to its employees to facilitate diversity and inclusion, and (2) quantitative diversity targets in recruitment process (Qualitative assessment)
Score	Gender Diversity Practices Score	Assesses a company's management policy and programs to improve workforce diversity, derived from the simple average of following sub-factor scores: (1) Workforce diversity policy and management oversight, and (2) Programs to increase workforce diversity (Score 0-10)
Score	Gender Diversity Score	Assesses a company's overall practices to improve gender diversity and performance on gender diversity related metrics and disclosure, derived from the weighted average of following sub-factor scores: (1) Gender Diversity Practices Score, and (2) Gender Diversity Performance Score (Score 0-10)

Contact us

clientservice@msci.com

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 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 more, please visit 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 disseminated 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 investable 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>.