

MSCI ESG RESEARCH: FAQ FOR CORPORATE ISSUERS

ESG Issuer Communications Team

January 2018

CONTENTS

1	INTRODUCTION	3
2	GENERAL QUESTIONS.....	3
3	MSCI ESG RESEARCH PROCESS QUESTIONS.....	5
4	REPORT FORMAT QUESTIONS	10
5	METHODOLOGY QUESTIONS.....	13
6	METHODOLOGY QUESTIONS – ESG Governance Metrics	18
	APPENDIX 1 - Issuer interaction guidelines	23

1 INTRODUCTION

This document aims to address the most frequently asked questions from corporate issuers about MSCI ESG Research, its various research reports, and processes on interacting with companies under our ESG research coverage. We plan to update this document periodically.

2 GENERAL QUESTIONS

2.1 WHO IS MSCI ESG RESEARCH?

MSCI ESG Research provides in-depth research, ratings and analysis of the environmental, social and governance-related business practices of thousands of companies worldwide. Our research is designed to provide critical insights that can help institutional investors identify risks and opportunities that traditional investment research may overlook.

For more information, please visit our website: <https://www.msci.com/esg-integration>

2.2 WHO ARE MSCI ESG RESEARCH'S CLIENTS?

MSCI ESG Research is the largest provider of ESG data and analysis, with 1,000+ clients worldwide, including 46 of the top 50 global asset managers.¹ Clients use our research to help implement their responsible investment objectives.

2.3 WHAT ARE THE MAIN RESEARCH REPORTS THAT MSCI ESG RESEARCH ISSUES ON MY COMPANY?

MSCI ESG Research collects and issues a variety of company research and data as it relates to ESG issues. The primary ESG company reports include:

MSCI ESG Ratings report (flagship research): Designed to help investors identify ESG risks and opportunities within their portfolio. We research and rate companies on a 'AAA' to 'CCC' scale according to their exposure to industry specific ESG risks and their ability to manage those risks relative to peers.

MSCI ESG Controversies report: Allows institutional investors to analyze a company's significant social, environmental, and governance impacts by identifying company involvement in major ESG controversies, and assessing company company adherence and performance with respect to international norms and principles.

¹ As of December 2017.

MSCI ESG Governance Metrics report: MSCI ESG Governance Metrics provides corporate governance research and data on over 7,000 public companies worldwide. The assessment model is based on 96 unique metrics organized into four individual scoring pillars (board, pay, ownership & control, and accounting).

MSCI ESG Research Business Involvement Screening Research (BISR) is a screening service which allows investors to identify all global publicly-traded companies involved in activities such as the production of controversial weapons, tobacco products, or those that violate religious screening mandates such as Catholic or Islamic Values.

2.4 HOW DO MSCI ESG RESEARCH CLIENTS ACCESS COMPANY RESEARCH REPORTS/DATA?

MSCI ESG Research clients can access research reports and MSCI ESG Research data via our proprietary platform – ESG Manager – via subscription services, and through data feeds and various third party distributors.

2.5 HOW CAN COMPANIES ACCESS THEIR MSCI ESG RESEARCH REPORTS? IS THERE AN ASSOCIATED COST?

Companies can request their MSCI ESG Research reports via ESG Issuer Communications (esgissuercomm@msci.com) at any time. There is no cost to receive a company’s own reports (a pdf version). However, peer and industry reports are only available via subscription. If your company is interested in subscribing, please contact our client service team at esgclientservice@msci.com.

2.6 MSCI ESG RESEARCH IS NEW TO ME. I WOULD LIKE TO SPEAK TO THE RELEVANT PERSON(S) ABOUT MY COMPANY’S ESG REPORTS, FAMILIARIZE MYSELF WITH THE PROCESS IN A BROAD SENSE, AND INTRODUCE WHAT MY COMPANY IS DOING ON MANAGING ESG ISSUES. HOW CAN WE ARRANGE A CALL/MEETING TO START THIS DIALOGUE?

We welcome issuer interest in MSCI ESG Research at any time, and ESG Issuer Communications is the primary point of contact for all companies in our coverage universe to submit questions about their ESG reports and the data verification/review process (esgissuercomm@msci.com).

We strive to ensure that our communications about our methodology and process are shared in scalable way, that is both efficient and fair to all issuers that we research and rate. As such, **we are generally unable to host general introductory calls/meetings with**

companies. Instead, we encourage companies to review this FAQ document and the other materials available on our website dedicated to corporate issuers ([here](#)), and send any specific questions or concerns to us in writing, at least in the first instance.

In 2018, we are working to further increase the resources available to companies and more proactively reach out to the issuer community at scale – via investment in technology, workshops, and webinars.

Please see Section 3 for more guidance on requests to engage our analyst team, and Appendix 1 for what we do and do not discuss with issuers.

3 MSCI ESG RESEARCH PROCESS QUESTIONS

3.1 WHEN DOES MSCI ESG RESEARCH UPDATE COMPANY RESEARCH?

MSCI ESG Research collects various company ESG data and publishes a number of company ESG reports. The timing of updates can vary. However, the flagship **MSCI ESG Ratings** is updated on an **annual basis**, based on an internally-determined industry-based schedule. For example, the majority of companies in the Pharmaceutical industry are generally updated every Q3. At this time, the ESG Ratings update does not follow a company’s own individual reporting cycle (e.g. when companies issue their annual report or sustainability reports).

Some underlying data *may* be updated more frequently – this includes new developments in controversies, significant governance updates or data corrections based on company feedback; if any of these changes trigger a change in overall rating, we will re-rate the company per our methodology and internal policies and processes.

3.2 WE HAVE RECEIVED A NUMER OF COMMUNICATIONS FROM MSCI ESG RESEARCH AND SEVERAL DIFFERENT REPORTS. CAN YOU JUST SEND ONE REPORT AND ONE REQUEST?

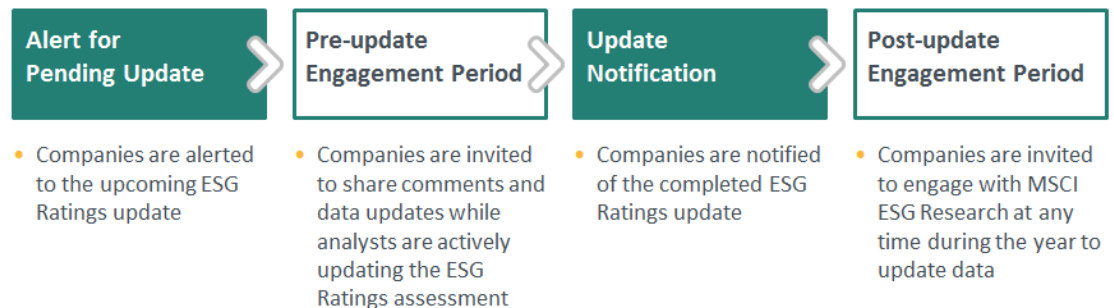
We recognize that companies may receive multiple requests from ESG ratings and research firms throughout any given year, and can understand the burden of responding to all inquiries. However, MSCI ESG Research does not issue one single ESG report to our clients, and our research and analysis and data collection is carried out at different times throughout the year by several dedicated expert teams. We anchor our main standard data verification process in the annual ESG Ratings update (see Question 3.3), which covers the majority of our data. While we are always looking for ways to make the process clearer, more streamlined, and more efficient overall, it is our primary commitment to ensure that

all of the company-verifiable information that we collect is accurate. As such, we make all efforts to reach out to companies whenever necessary to do so.

There is no obligation for issuers to respond to our outreaches, however, we appreciate the time companies take to participate in our process.

3.3 HOW CAN COMPANIES PROVIDE FEEDBACK ON ITS MSCI ESG RESEARCH REPORTS?

MSCI ESG Research has established several data review/verification processes across its core research. Companies are provided the opportunity to comment on all of the company-verifiable information that MSCI ESG Research collects. **We anchor our main standard data verification process in the annual update of the flagship MSCI ESG Rating.** Please see below for a visual of this process.



We do not publicly share our update schedule for MSCI ESG Ratings, which is subject to change at our discretion. However, companies are typically updated on an annual basis, roughly around the same time each year, and generally within a 12-month cycle from the prior year’s assessment. As such, a typical timeline would proceed as follows:

Company X’s ESG Rating was last updated in September 2017. The next annual ESG Ratings update would be expected in September 2018. Companies will receive the “alert” approximately 6-8 weeks prior to the new update (i.e. in this case, around end of July/beginning of August), and will be invited to provide comment ahead of the assessment. When the update is complete, companies receive another auto-notice that this has occurred, and are again invited to comment should they have additional feedback or identify any outstanding issues. Please note we do **not** share draft reports.

Instructions on how to comment will be provided in the communications sent to companies. General guidelines are also included in this FAQ below.

The standard data review process includes a majority of the underlying data that MSCI ESG Research collects (that is company-verifiable), including data that factors into the ESG Controversies and ESG Governance Metrics research, in addition to ESG Ratings.

Our data verification process for our Business Involvement Screening Research (BISR) is conducted separately. At this time, companies may receive auto-notifications to review this information at various points throughout the year.

We may also reach out to companies on an ad-hoc basis to review additional data where necessary.

3.4 IS THERE A DEADLINE TO PROVIDE COMMENTS? IF YES, WHAT HAPPENS IF WE MISS THE DEADLINE?

Within the standard data review process, companies will receive an alert notification *ahead* of the annual ESG Ratings update, along with a copy of the existing published ESG Ratings report. At this stage, companies are invited to provide any updates, comments, and/or corrections prior to the issuance of the new assessment, and there is indeed a deadline to do so, which will be explicitly specified in the corresponding communication. For the weighted key ESG issues, particularly the management metrics, our analyst team will make all efforts to review comments provided by this deadline before completing the annual ESG Rating update.

However, if a company does not meet this deadline, it can still provide comment after the update is complete. Per the standard process, companies will be sent a second auto-notification when the ESG Ratings is released (See Question 3.3). At this stage, there is an open-ended opportunity (no deadline) for companies to provide comments. MSCI ESG Research is always open to reviewing feedback at any time, and will correct erroneous information in a timely fashion. Any comments sent to us in the “post-publication” period will be reviewed, and feedback incorporated where appropriate, typically within 4-6 weeks. If any updates to underlying data/scores are significant enough (based on internal triggers) to impact the overall rating, we will update the assessment accordingly, per our methodology and out-of-cycle update processes.

3.5 DOES MSCI ESG RESEARCH SEND DRAFT REPORTS TO COMPANIES FOR REVIEW PRIOR TO RELEASE TO CLIENTS?

MSCI ESG Research does **not** share draft reports with companies. For the flagship ESG Ratings research, we do provide companies the opportunity to provide comments and engage with us ahead of the update of the annual ratings update (See Question 3.3).

Please note that while the overall ESG rating undergoes a full review typically only once annually, MSCI ESG Research’s data can be quite dynamic and some of the underlying information can be updated frequently throughout the year (e.g. controversies, governance data).

We are committed to reviewing feedback from companies at any time and will make any necessary corrections/updates in a timely fashion. The “door” for comment is never closed. Just as our research can be dynamic/fluid, so is the opportunity for issuers to review and respond. Any updates made will flow directly to clients on our proprietary platform, ESG Manager.

3.6 WHAT IS THE BEST FORMAT IN WHICH TO SUBMIT COMMENTS?

At this time, unless specified otherwise, we request that companies follow the below instructions when providing feedback for most data verification requests:

1. Please comment directly in the pdf attachment using the “sticky note” function.
2. All corrections/requests for updates MUST be accompanied by the web link to where the information can be found in the public domain. MSCI ESG Research only uses public information. We will not use any internal or confidential information.
3. Submit all feedback via email to the ESG Issuer Communications team at esgissuercomm@msci.com. For our ESG Ratings research, we do not issue stock questionnaires or surveys and do not conduct general interviews.

We also strongly encourage companies to read this FAQ document before commenting or submitting questions.

3.7 CAN WE SPEAK/MEET DIRECTLY WITH OUR MSCI ESG RESEARCH ANALYST?

In the interest of maintaining research independence and given the factors below, we do not typically make individual analysts available for discussion with companies. MSCI ESG Research collects a significant amount of data that factors into our various company research reports. We have several expert teams responsible for different data and analysis. For example, we have governance data experts, a dedicated controversies team, and carbon data analysts, among many others. For our flagship ESG Rating, there may be up to **six** different analysts working on a company’s report.

As such, ESG Issuer Communications is the central channel and primary point of contact for companies. We would request that companies review all of their relevant MSCI ESG Research data and send all comments and feedback **in writing** to us in the first instance. Once we review comments, should a call be warranted to discuss any items for clarification, we would be happy to arrange one with the relevant member(s) of our analyst team.

Note that MSCI only uses public information. For our ESG Ratings research, we do not issue stock questionnaires or surveys and do not conduct general interviews.

3.8 WE HAVE INFORMATION/FEEDBACK TO SHARE, BUT THIS IS NOT PUBLIC. WILL THIS BE CONSIDERED?

No. MSCI ESG Research **only** uses public information. We are strong supporters of ESG information in the public domain, available to all market participants, in the interest of market transparency. We will not use any internal or confidential information.

We request that all feedback shared be accompanied by the (web) link to where the information can be found publicly.

3.9 OUR COMPANY JUST RELEASED ITS NEW CSR/SUSTAINABILITY REPORT. WILL MSCI ESG RESEARCH USE THIS TO UPDATE OUR COMPANY ASSESSMENT?

For the ESG Ratings update, our analyst teams will reference any public information available at the time of the scheduled annual assessment. In general, any new information released/published by the company after the initial annual ESG Ratings update takes place will be utilized in the *next* ratings update. In other words, we will not do a blanket re-rate mid-cycle based only on new sustainability reporting.

3.10 HOW CAN WE IMPROVE OUR MSCI ESG ASSESSMENT(S)? IS THERE IS A WAY WE CAN BETTER ENGAGE MSCI ESG RESEARCH, AS WE WOULD LIKE TO IMPROVE OUR RATING?

In order to avoid any perceived conflict of interest, MSCI ESG Research **does not** provide any advisory or consulting to companies on how they can improve their ratings or other MSCI ESG evaluations.

The ESG Ratings reports provide a considerable amount of information and details about the assessment, including insight on our approach to the model and many of the indicators we capture. Companies may reference the report to understand its company’s general strengths and weaknesses on key ESG issues.

Please see Appendix 1 for our general company interaction guidance.

4 REPORT FORMAT QUESTIONS

4.1 IN THE ESG RATINGS REPORT, MY COMPANY’S KEY ISSUE SCORE IS HIGH, BUT WE FALL IN THE THIRD/BOTTOM QUARTILE.

In general, the quartiles are dynamic, and can change frequently as more companies in the industry are assessed and the distribution of the scores change. It is very possible for a company’s individual score to improve or even be relatively high, and still be in a lower quartile, depending on how clustered the distribution of the scores are. The quartiles are all automatically generated.

4.2 IN THE ESG RATINGS REPORT, THE “LAST UPDATE” DATE IS AUGUST 2017. HOWEVER, THE REPORT DOES NOT APPEAR TO INCLUDE OUR UPDATED ESG DATA, WHICH WAS RELEASED WITH OUR LATEST SUSTAINABILITY/ANNUAL REPORT IN JUNE 2017. WHY WAS THIS INFORMATION MISSED?

In general, the “Last Update” date reflects when any underlying data or text narrative was last changed/updated. Some of the underlying data that we collect may change frequently throughout the year – e.g. governance information and controversies research; additionally, we may correct data based on feedback from companies, where applicable.

However, the majority of the ESG Ratings data (i.e. the weighted key issues) that factor into the overall letter rating, is up-to-date as of the “Rating Date” (can be found under the ESG Ratings History chart). The ESG Rating is typically only issued/updated once annually, and the information used in this update reflects the data available at that time. At this time, any new information/disclosures released from the company after the initial annual ESG Rating Date, will typically be factored into the *next* ratings cycle.

4.3 AT THE BEGINNING OF THE ESG RATINGS REPORT, IT STATES THAT “NO AREAS OF SUBSTANTIAL STRENGTHS IN MANAGING MATERIAL RISKS...ARE IDENTIFIED FOR THIS COMPANY”. WE STRONGLY DISAGREE.

The “Key Risks” and “Strengths” section at the beginning of the ESG Ratings report is auto-generated based on the performance/score of the company on the weighted key ESG issues. Key issue scores that are below a certain threshold criteria will be highlighted as Key Risks; similarly, key issue scores that are above certain threshold criteria will be highlighted as Strengths.

4.4 WHAT IS THE DIFFERENCE BETWEEN THE ESG RATINGS REPORT AND THE CORPORATE DATA VERIFICATION REPORT?

The ESG Ratings report is the full, published ratings report, available to clients via our proprietary platform, ESG Manager. The Corporate Data Verification report includes the underlying data that we have collected to date, which is used in various MSCI ESG Research products, including the flagship ESG Ratings report. It is not a client-facing report; it is only sent to companies as part of the standard data verification process. Unlike the ESG Ratings report, it does not include the rating, scores, or text analysis.

4.5 IN BOTH THE ESG RATINGS REPORT AND THE CORPORATE DATA VERIFICATION REPORT WHY IS SOME INFORMATION UPDATED AND SOME NOT?

Any ESG key issue that carries a weight should be up-to-date as of the Rating Date, or date that the Data Verification report is sent to a company as part of the standard data verification process. Any issues that are 0% weighted do not factor into the rating and are updated on a different schedule than the ESG Ratings data. As such, these supplemental issues may not be updated as of the Rating Date.

We include all data that we collect in the standard data review process in order to reduce the burden of data review outreaches we send to companies, and welcome feedback and corrections on all info.

4.6 WE DISAGREE THAT OUR COMPANY HAS “MODEST/SOME” EFFORTS. WHAT IS THE BASIS FOR THIS STATEMENT?

Statements in our ESG Ratings report that reference minimal/moderate/modes/some efforts are a reflection of the company’s management performance on the key data points that we evaluate, as well as the evaluation of the company’s efforts in the context of its peer set. We have increased transparency into the management metrics that we look at directly in the ESG Ratings report, and encourage companies to reference this report for more information.

4.7 ‘RISK MANAGEMENT’ IN THE ESG RATINGS REPORT – WHAT INFORMATION IS MSCI ESG RESEARCH LOOKING FOR?

We are continually refining the format of our reports, and have greatly increased transparency into our methodology and data we collect over the past couple of years. The ESG Ratings report includes a considerable amount of detail on the management metrics we assess, as well as our evaluation of where the company has strengths and weaknesses. We encourage companies to read the ESG Ratings report for this information. As a reminder,

MSCI ESG Research does not provide consulting or advisory services to companies on how to report information and/or how to improve their score/rating.

In general, our assessment of a company’s risk management capabilities on a key issue typically falls into three broad categories:

- Strategy & Governance
- Initiatives & Programs
- Performance

4.8 IN THE ESG CONTROVERSIES REPORT, WHY ARE THERE SO MANY “N/A” UNDER MANAGEMENT METRICS? WE HAVE ALL OF THIS INFORMATION IN OUR PUBLIC DISCLOSURES.

The Management Metrics indicators displayed in the ESG Controversies report are supplemental and have no bearing on the assessment for this research product. It includes only select data points that we have collected in other research (ESG Ratings) and are shown only for informational purposes. Typically, “N/A” in the ESG Controversies report means that we do not collect this data for your company, not that it does not exist. In any data review exercise, a company does not need to comment on this data in this report.

4.9 WE PROVIDED AN EXTENSIVE RESPONSE TO THE CONTROVERSIES, BUT THESE HAVE NOT BEEN CONSIDERED. WHERE ARE THE COMMENTS FROM OUR COMPANY?

All comments provided by companies on controversies are indeed reviewed by our analyst team. We will incorporate company responses in the body of the case narrative, where appropriate, as well as the dedicated “Company Response” section in the ESG Controversies report. At this time, the “Company Response” section is only included in the ESG Controversies report, and is not featured in the ESG Ratings report or the Corporate Data Verification Report.

4.10 WE REPORT IN OUR LOCAL CURRENCY, BUT THE MSCI ESG REPORTS SHOW THE DATA IN USD. IT IS VERY DIFFICULT FOR US TO VERIFY THIS INFORMATION WITHOUT THE EXCHANGE RATE THAT IS USED.

For comparative and standardization purposes, the ESG Ratings report displays data in USD. The exchange rate used is typically the FYE rate for that specific year. For MSCI-calculated *intensity metrics*, given there may be small discrepancies in revenue data depending on the

exchange rate used, for data review, we are primarily concerned with the accuracy of the numerator (e.g. Scope 1+2 carbon emissions). See Question 5.6.

For certain governance data (e.g. summary pay, audit fees), we collect and show this information in local currency in the ESG Governance Metrics report, although it is currently displayed as USD in the ESG Ratings report.

5 METHODOLOGY QUESTIONS

5.1 HOW CAN WE ACCESS THE METHODOLOGY FOR THE VARIOUS ESG RESEARCH REPORTS?

The full methodology documents for our various core research products are typically only accessible to clients, not to the general public. However, an Executive Summary of the methodology for our flagship ESG Ratings research is available here:

<https://www.msci.com/www/research-paper/esg-ratings-methodology/0175943017>

In 2018, we will be working to add additional methodology summaries for other research products.

The existing full ESG reports also provide considerable information about our methodology and approach directly in the assessment, and we plan to continue to enhance our transparency into our approach in all of our reports over time.

5.2 HOW ARE PEERS DETERMINED? THE LIST OF PEERS ON THE ESG RATINGS REPORT IS NOT RELEVANT TO OUR COMPANY.

The Industry peer groups are standardized and determined by Global Industry Classification Standard (GICS). There is no analyst selection involved. The peers listed in the ESG Ratings report are the ten largest peers in the GICS industry by market cap. It is only a subset of the peer set, not the full list.

5.3 ON LABOR MANAGEMENT WE ARE NOT EXPOSED TO ANY RISKS, AS WE HAVE NEVER FACED ANY STRIKES OR WORK STOPPAGES DUE TO POOR LABOR RELATIONS. HOW IS RISK EXPOSURE DETERMINED?

Most key issues, although not all, consist of two components: risk exposure and risk management. This distinction allows the model to adjust the strength of management systems required to achieve a given key issue score: *companies facing higher risk exposure must have stronger management practices in place to mitigate their risks.*

On the risk side, MSCI has developed a proprietary risk exposure model. Our assessment of exposure may be comprised of three different areas of analysis, depending on the key issue:

- **Business Segment Risk Exposure** – analyzes the breakdown of a company’s business in terms of revenues, assets, or operations
- **Geographic Segment Risk Exposure** – analyzes the breakdown of a company’s geographic segments in terms of revenues, assets, or operations
- **Company-Level Risk Exposure factors** – such as number of employees, size, reliance on government contracts, or reliance on outsourced production

We utilize a variety of sources to determine the risk exposure level/scores for each of the areas. This model is *independent* of a company’s own determination of risk exposure or performance in the key issue.

For example, on Labor Management, Company X’s risk exposure is determined to be high based on the type of business it is involved in (% of operations in business segments with high labor intensity, as measured by average sales per employee), the location of its operations (% of operations in countries with high likelihood of labor unrest, based on historic precedent). The key issue also looks at additional factors, such as workforce size, recent restructuring, etc. The *exposure* side of this assessment does **not** consider Company X’s track record in avoiding labor disputes or work stoppages. This would be a performance measure evaluated under the *risk management* side of the key issue assessment.

5.4 CAN MSCI ESG RESEARCH SHARE THE DETAILS OF ALL THE BUSINESS/GEOGRAPHIC SEGMENTS CONSIDERED TO BE HIGH, MEDIUM, LOW RISK IN ORDER FOR US TO VERIFY THE DATA?

MSCI ESG Research’s risk exposure assessment is based on our proprietary risk methodology. This breakdown of all the segments considered high, medium, low risk is not available to the general public. Segment risk exposure determination based on MSCI ESG Research methodology is not verifiable by companies.

5.5 WE DON’T REPORT CARBON EMISSIONS DATA. WHERE DID THE EMISSIONS DATA COME FROM?

Where companies do not report this information, we estimate based on MSCI ESG Research proprietary carbon estimation methodology. However, if the company does report carbon data publicly, please let us know, including the link to where this information can be found in the public domain. We will review and make the necessary updates, replacing the estimates where appropriate.

5.6 HOW DOES MSCI ESG RESEARCH CALCULATE INTENSITY? OUR INTENSITY CALCULATIONS DIFFER THAN WHAT IS IN THE ESG RATINGS REPORT.

Unless stated otherwise, the denominator in the MSCI-calculated intensity metric is typically USD million sales, converted (where needed) at the FYE exchange rate. Given there may be small discrepancies in revenue data depending on the exchange rate used, for date verification purposes, we are primarily concerned with the accuracy of the numerator (e.g. actual emissions).

We may collect company-reported intensity metrics for informational purposes; our assessment utilizes/scores normalized MSCI-calculated intensity.

5.7 IN THE RAW MATERIAL SOURCING KEY ISSUE, WHERE DID MSCI ESG RESEARCH GET THE EXPOSURE DATA FROM? WE DO NOT REPORT THIS INFORMATION. E.G. % SALES AND SALES RELIANT ON EACH MATERIAL.

Where companies do not disclose this information (it is indeed not commonly reported publicly by many issuers) we estimate this data based on our understanding of the company’s product portfolio. The sales reliant is simply the % estimated mapped to 3 yr avg sales (USD). If the company has any comments on these estimates, please let us know.

5.8 HOW ARE ESG KEY ISSUE WEIGHTS DETERMINED?

Once the key issues have been selected for a GICS Sub-Industry, we set the weights that determine each key issue’s contribution to the overall rating. Each key issue typically comprises 5-30% of the total ESG Rating. The weightings take into account both the contribution of the industry, relative to all other industries, to the negative or positive impact on the environment or society; and the timeline within which we expect that risk or opportunity for companies in the industry to materialize, as illustrated conceptually below (excerpt from the full ESG Ratings Methodology).

Figure 9 Framework for Setting Key Issue Weights

		Expected Time frame for Risk/Opportunity to Materialize	
		Short-Term (<2 years)	Long-Term (5+ years)
Level of Contribution to Environmental or Social Impact	Industry is major contributor to impact	Highest Weight	
	Industry is minor contributor to impact		Lowest Weight

5.9 ONE OF THE CONTROVERSIES LISTED FOR OUR COMPANY IS CONCLUDED. HOW LONG WILL IT REMAIN ON THE REPORT?

Concluded Controversies: A ‘Concluded’ controversy retains its final severity assessment for one year from the date of conclusion, at which point it is upgraded by one severity level (e.g. from Severe to Moderate). The following year the case will be upgraded again or be archived, depending on the severity level. For Example, a Severe case becomes Moderate one year after it was concluded. After a year as a Moderate case, it becomes Minor. After a year as a Minor case, it is archived (removed).

Minor Controversies: All Minor controversies are archived after one year, regardless of status, unless developments warrant a downgrade to a more severe assessment.

Very Severe Controversies: Very Severe controversies that have concluded will only be upgraded if certain criteria are met. These conditions include factors such as a company’s response to the controversy and the lack of new allegations or developments related to the same issue. Likewise, a Very Severe controversy may be upgraded before it is concluded if the company has taken aggressive steps to remediate the situation and avoid future recurrences. Upgrades, downgrades, and reaffirmation of a Very Severe assessment all undergo internal review processes.

5.10 UNDER THE DATAPOINT “ENGAGEMENT SURVEYS TO MONITOR EMPLOYEE SATISFACTION”, IT STATES “SURVEYS CONDUCTED SPORADICALLY”. OUR COMPANY CONDUCTS EMPLOYEE SURVEYS EVERY TWO YEARS.

General best practice in terms of frequency of employee surveys is *annual*. Per our scoring, a company that conducts engagement surveys at any other regular frequency (e.g. every two

years) will typically be assessed as “sporadically”. While we are always looking to refine our indicators, this is currently the standardized scoring level.

5.11 IN THE CORRUPTION & INSTABILITY KEY ISSUE, HOW WAS IT DETERMINED THAT THE COMPANY IS “RELIANT ON THE GOVERNMENT SECTORS FOR A MAJOR PROPORTION”?

Where companies do not disclose granular data on revenue generated from government contracts, MSCI ESG Research will estimate this information based on an understanding of its industry, business model, and product/service portfolio. At this time, “major” refers to 20% or more of revenue. If the company has feedback on the accuracy of this determination, please let us know, and please include supporting documentation.

5.12 IN THE HEALTH & SAFETY KEY ISSUE, FOR “TARGET TO IMPROVE H&S PERFORMANCE”, IT SAYS “ZERO TARGET”. WE CLEARLY HAVE A TARGET TO ACHIEVE ZERO FATALITIES. PLEASE AMEND.

“Zero Target” is a recognition that the company is has a goal to achieve zero/no fatalities, not that the company does not have a target.

5.13 WE CURRENTLY REPORT TO GRI STANDARDS, AND ARE REVIEWING THE SASB FRAMEWORK. DOES MSCI PREFER OUR ESG DISCLOSURES TO BE MORE IN-LINE WITH ONE OR THE OTHER? WHAT IS THE BEST WAY TO REPORT OUR ESG INFORMATION?

MSCI ESG Research is a strong supporter of increased disclosure of ESG data in the public domain (as we only use public data), and we have provided recommendation on the various guidelines and standards whenever requested. However, we do not favor one reporting framework over another and we will not comment specifically on how a company should report its ESG information. As long as the information is public – regardless of format – our teams will review and consider it.

6 METHODOLOGY QUESTIONS – ESG GOVERNANCE METRICS

6.1 BOARD PILLAR

6.1.1 WHAT ARE MSCI ESG RESEARCH’S DIRECTOR OVERBOARDING STANDARDS? IT DOES NOT SEEM TO BE ALIGNED WITH OTHER RESEARCH FIRMS’ STANDARDS, SUCH AS ISS AND GLASS LEWIS.

MSCI ESG Research’s criteria may be stricter than local regulatory requirements or a company’s own definition. Per MSCI ESG Research methodology, there are two standards:

An **executive director** is considered over-boarded if he/she serve on a total of three or more boards (including the rated company) on companies included in the MSCI ESG Corporate Governance Research Universe. This includes equity and debt issuers.

A **non-executive director** is considered over-boarded if he/she serve on a total of four or more boards (including the rated company) on companies included in the MSCI ESG Corporate Governance Research Universe. This includes equity and debt issuers.

This reflects changes to the ESG Governance Metrics Methodology that were effective as of January 12, 2018.

6.1.2 WHAT IS THE PROCESS AND CRITERIA USED TO DETERMINE IF A DIRECTOR’S PRIOR BOARD SERVICE RAISES INTEGRITY CONCERNS REGARDING A CURRENT’S BOARD INTEGRITY? DOES THIS KEY METRIC (KM) HAVE AN EXPIRATION DATE?

The Board Integrity KM identifies directors whose prior board service includes a company that was involved in a corporate bankruptcy or other major loss of shareholder value. Directors are only flagged if their board service began at least one full year prior to the triggering event. This Key Metric does not have an expiration date.

6.1.3 WHAT CRITERIA IS USED TO DETERMINE IF A BOARD IS CONSIDERED ENTRENCHED?

There are four different scenarios which trigger this Key Metric.

- More than 35% of the board has a tenure greater than 15 years;
- More than 22% of the board has a tenure greater than 15 years and more than 15% of the directors are over 70;
- There are more than 4 directors whose tenure is greater than 15 years; or if
- If there are more than 4 directors who are over 70.

6.1.4 OUR COMPANY HAS HAD A MAJORITY VOTING POLICY IN PLACE FOR SEVERAL YEARS. WHY IS THE COMPANY STILL FLAGGED FOR THIS?

MSCI ESG Research has a strict standard for majority voting policies in director elections flagging plurality, plurality plus resignation and majority plus resignation standards. When a director does not receive a majority of votes cast, this standard requires the director to **immediately** depart from the board.

6.1.5 “SIGNIFICANT VOTES AGAINST DIRECTORS”. WHAT IS THE REQUIRED THRESHOLD AND RELEVANT TIME PERIOD THAT RESULTS IN THE FLAGGING OF THIS KEY METRIC? WHAT IS CONSIDERED “SIGNIFICANT”?

This Key Metric is flagged if one or more directors receive a “negative” or “withheld” shareholder vote equal to or in excess of 10% at the most recently reported election by a company (or in certain markets on the discharge of the directors). A “negative vote” includes against, withhold or abstain votes.

6.1.6 WHAT IS THE PROCESS AND CRITERIA USED TO DETERMINE WHETHER A DIRECTOR IS CONSIDERED AN INDUSTRY EXPERT?

In general, a board member’s biography must disclose that they are a company executive, or an executive at another company with same Global Industry Classification Standard (GICS) industry code.

6.1.7 WHAT IS THE PROCESS AND CRITERIA USED TO DETERMINE WHETHER A DIRECTOR IS CONSIDERED A FINANCIAL EXPERT?

In general, a board member’s biography must disclose they have financial or accounting expertise. MSCI ESG Research looks for designations such as CFO, CPA, etc. and also reviews the director’s previous and current positions and duties.

6.1.8 WHAT IS THE PROCESS AND CRITERIA USED TO DETERMINE WHETHER A DIRECTOR HAS RISK MANAGEMENT EXPERIENCE?

In general, a board’s member prior experience must include a specific reference to risk management in the director’s published bio. See general criteria below:

- ***Risk Officer/Manager*** - Public or Private Company or a Division/Subsidiary of such firm
- ***Executive with Risk Management*** - (such as CFO, Managing Director) tasked with specific Risk Management duties
- ***Insurance Company CEO***

- **Risk Consultant** - Principal, Executive or Partner or Consultant in a risk consulting firm or practice
- **Public Sector Risk Management**
- **Risk Academic**
- **Executive Level Risk Committee Member** - this must not be a Board Level committee, but rather a committee that operationally manages risks at the executive level

Not Acceptable Professions as Sole Consideration:

- CEO or CFO, in general
- Membership on a board level risk committee or risk subcommittee of another company
- Membership on an advisory risk committee of a profit or non-profit organization
- Senior military positions and senior political positions
- Professorships in business, finance, or economics
- Director described as having risk expertise or who is described as a ‘risk consultant’
- Executive-level position in accounting

6.2 PAY PILLAR

6.2.1 WHAT CRITERIA IS USED TO ESTABLISH PEER GROUPS AND HOW OFTEN ARE THEY RE-EVALUATED?

The Pay Peer Groups are utilized in the Key Metrics for comparative and benchmarking purposes. These are regenerated every quarter.

Companies are assigned Pay Peer Groups based on three criteria:

1. Industry;
2. Market Capitalization; and
3. Peer Market.

Industry

This is determined based on GICS Industry.

Market Capitalization

This is based on the following size references:

	Developed Market	Emerging Markets
Large Cap	>=USD 10,901m	>=USD 5,450m
Mid Cap	>=USD 4,040m and <USD 10,901m	>=USD 2,020m and <USD 5,450m
Small Cap	>=USD 342m and <USD 4,040m	>=USD 171m and <USD 2,020m
Micro Cap	<USD 342m	<USD 171m

Size references are updated annually.

Peer Market

This divides companies into regional peers identified on the basis of a company’s Home Market:

- Developed Americas;
- Other Developed Markets; and
- Emerging Markets.

6.2.2 SEVERANCE VESTING: DOES THIS KM INCLUDE UNVESTED EQUITY AWARDS, STILL ELIGIBLE FOR VESTING UPON A CEO’S TERMINATION, THAT WERE AWARDED PURSUANT TO DOUBLE –TRIGGER TERMINATION PROVISIONS?

Yes – this Key Metric is flagged, if upon the termination of the CEO’s employment, there are unvested equity awards which are still eligible for vesting.

6.2.3 “SIGNIFICANT VOTES AGAINST PAY PRACTICES”. WHAT IS THE REQUIRED THRESHOLD AND RELEVANT TIME PERIOD THAT RESULTS IN THE FLAGGING OF THIS KEY METRIC? WHAT IS CONSIDERED “SIGNIFICANT”?

This Key Metric is flagged if the company’s pay policies and/or practices received a “negative” or “withheld” shareholder vote equal to or in excess of 10% at the most recently reported election by a company. A “negative vote” includes against, withhold or abstain votes.

6.2.4 EXECUTIVE PAY NON-DISCLOSURE. WE DISCLOSE AGGREGATE PAY DATA IN OUR PUBLIC REPORTING. WHY DOES THE REPORT STATE THAT WE FAIL TO DISCLOSE THIS?

Per MSCI Governance Metrics methodology, we are seeking granular disclosure of individual pay components, where such component is provided: salary, short-term incentives, long-term incentives, pensions, benefits, one-off payments (e.g. retention awards), for each executive member of the Board of Directors.

6.3 ACCOUNTING GOVERNANCE & RISK (AGR) RESEARCH

6.3.1 WE NOTE THE FOLLOWING STATEMENT IN THE ESG RATINGS REPORT: “WE HAVE FLAGGED THIS COMPANY FOR POTENTIAL CONCERNS REGARDING REVENUE RECOGNITION RATIOS (BASED ON OUR QUANTITATIVE ASSESSMENT).” WHAT IS THIS QUANTITATIVE ASSESSMENT? COULD YOU SHARE THE QUANTITATIVE ASSESSMENT METHODOLOGY WITH US?

Some of our accounting metrics for ESG Ratings are derived from our Accounting Governance & Risk (AGR) analysis (these do not appear on the report). In general, companies are flagged for potential concerns when relevant ratios are considered “extreme” as defined by the AGR methodology (top or bottom 20% of peer group). You may request your company’s AGR report directly with the ESG Issuer Communications team. More information about the methodology for this research is included in the report. Please note that there is no analyst input into this report – it is purely calculation-based. The AGR product provides statistical ratings, which are not the result of a subjective analysis, and there is no opportunity for overriding a flag. However, we will address any factual errors if they exist.

APPENDIX 1 - ISSUER INTERACTION GUIDELINES

MSCI ESG Research’s primary focus is to ensure the company data we collect are accurate. We are committed to providing companies with the underlying data, which is company-verifiable, via the standard data verification processes. We are also committed to provide companies with their full MSCI ESG Research reports upon request at any time after they are published. We endeavor to address questions companies may ask with regard to our research reports, methodology, and processes in a timely fashion. General guidance on what can be discussed with companies, as well as our limitations in interaction, is noted below.

WHAT WE DO DISCUSS WITH COMPANIES

- High-level methodology overview for core products.
- Basic methodology questions. Some examples, but not an exhaustive list:
 - General components of the ratings (e.g. exposure vs. management).
 - High-level data point description/definitions/clarifications.
 - General data sources
- Basic report format questions.
- Process-oriented questions – timing of different research/report updates, data verification process, etc.

WHAT WE DO NOT DISCUSS WITH COMPANIES

- How to improve ratings and disclosures of ESG issues.
- How a company’s peers are performing.
- Minor changes in scores from one period to the next.
- Scoring thresholds/levels at the individual data point/indicator level.
- Detailed discussion of segment scores underlying MSCI ESG Research’s proprietary risk exposure model.

MSCI ESG Research reports, public executive summary methodologies, and FAQ for Corporate Issuers provide a great deal of information on our methodology and processes, as well as where a company leads and/or falls behind peers, and the main drivers for ratings changes, where applicable. These documents should be the first reference point for

companies. We do not provide, and cannot be perceived to be providing, any advisory or consulting services.

CONTACT US

esgissuercomm@msci.com

ABOUT MSCI ESG RESEARCH PRODUCTS AND SERVICES

MSCI ESG Research products and services are provided by MSCI ESG Research LLC, and are designed to provide in-depth research, ratings and analysis of environmental, social and governance-related business practices to companies worldwide. ESG ratings, data and analysis from MSCI ESG Research LLC are also used in the construction of the MSCI ESG Indexes. MSCI ESG Research LLC is a Registered Investment Adviser under the Investment Advisers Act of 1940 and a subsidiary of MSCI Inc.

ABOUT MSCI

For more than 40 years, MSCI's research-based indexes and analytics have helped the world's leading investors build and manage better portfolios. Clients rely on our offerings for deeper insights into the drivers of performance and risk in their portfolios, broad asset class coverage and innovative research.

Our line of products and services includes indexes, analytical models, data, real estate benchmarks and ESG research.

MSCI serves 99 of the top 100 largest money managers, according to the most recent P&I ranking. For more information, visit us at 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, FEA, InvestorForce, 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.