

2018 RobecoSAM Corporate Sustainability Assessment -Annual Scoring & Methodology Review

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www.robecosam.com/csa

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1 General Remarks

This year a record 993 companies participated in the RobecoSAM Corporate Sustainability Assessment (CSA), a 5.4% increase over 2017's participation numbers. It was the 20th time the questionnaire was sent to the world's largest companies. With the 2018 methodology, we focused on aligning our methodology with both our own view on the most financially material topics and accepted sustainability reporting frameworks such as GRI, SASB and CDP in order to improve clarity and data consistency for companies. This helped to align the questionnaire and address the growing reporting burden companies face. Of course, we also introduced new questions to further challenge companies on new risks and opportunities.

1.1 Scoring Methodology Updates and the Media & Stakeholder Analysis

In light of significant improvements in corporate sustainability performance and disclosure over the past years and increased investor interest in corporate controversies, we increased the weight of the Media and Stakeholder Analysis within the overall scoring of the Corporate Sustainability Assessment. As by and large, this resulted in decreases in average scores, percentile ranks remain the most stable basis for year-on-year comparisons. For more information on these changes and the reasoning behind them, please see below, section 2.1.

Additionally, for the 2018 assessment, we primarily focused on reducing the overall number of questions within the questionnaire, removing questions or criteria we felt were no longer of material significance to companies, or that addressed topics that have become common practice over the last few years and no longer distinguish leading companies. This allowed us to introduce new general and industry-specific criteria, to ensure that our assessment continues to raise the bar and challenge companies in their thinking about long-term risks and opportunities.

1.2 Clarified Expectations of Public Disclosure

Supporting documents are required in some questions so that we can verify the answers provided. Over the past years, we have increased the number of questions requiring publicly available data and supporting evidence, reflecting the general shift in investor demand for greater transparency and more readily available information in the public domain. This year we clarified our expectations around public disclosure, marking a specific subset of questions with one of two designations:

This question requires publicly available information: These questions require publicly available information. If you include information (that is not publicly available) which our analysts cannot access in the public domain, we will not assess your response and no points will be awarded for this question: our assessment for this question is based upon your public disclosure of the information requested. Publicly available information should be directly accessible through navigation from your company's own website or a related website (e.g. subsidiary, affiliate, etc.).

<u>Additional credit will be granted for relevant publicly available evidence</u>: In these questions, we ask for publicly available information. If possible, we encourage you to provide evidence that is publicly available, and will grant additional credit for relevant publicly available evidence. However, these questions do not require publicly available supporting evidence and you're welcome to share non-public documents as references.

We see the Corporate Sustainability Assessment as a useful mechanism to promote increased corporate disclosure on underreported or emerging sustainability topics — to the benefit of companies' shareholders, investors and other stakeholders. Over the years, we have received positive feedback from companies reaffirming this role. Over time, in tandem with the increasing scope of corporate sustainability disclosure, we intend to continuously raise the bar, and our intention is that questions of the latter category (where publicly available evidence grants *additional* credit) gradually shift towards the first category, *requiring* public evidence.

1.3 Additional Methodology Updates

The other major updates to the methodology in 2018 affecting a majority of companies were in the areas of Corporate Governance, Tax Strategy, and Climate Strategy. The former two criteria in the economic dimension are critical to sustainability discussions around the world as new initiatives, frameworks, and legal risks materialize. In coordination with CDP and in line with the recommendations of the Task Force on Climate-Related Financial Disclosures, we updated our Climate Strategy criterion to reflect current best practice.

This document focuses on the major changes to the 2018 CSA methodology and shares observations on how companies performed on these new topics while further explaining RobecoSAM's view on the topics. More information about the CSA methodology can be found in our comprehensive CSA Resource Center: www.robecosam.com/csa/resources/

As commenced in 2017, we will be hosting a series of webcasts on the newly introduced questions with our sustainability experts to discuss this year's findings and answer questions from companies.

We would like to take this opportunity to thank all participating companies and other stakeholders for contributing to the continued evolution of the CSA. The invaluable feedback and expert insights that we receive are essential to maintaining a methodology that will continue to drive sustainability thinking and strategies that deliver real impact.

1.4 Data Quality

As global reporting measurement and reporting standards develop, we adapt our definitions where necessary in an effort to capture more comparable and precise data. Increasingly, sustainability data are being used by investors to measure the impact of their investments. As one example, RobecoSAM uses aggregated data from selected questions in the Operational Eco-Efficiency criterion in the CSA to measure the overall carbon, energy or water or waste intensity of an investment portfolio. This helps us show our clients how investing in a group of sustainability leaders can have a tangible positive environmental impact.

In order to provide investors with meaningful sustainability data to enable better informed investment decisions, this data needs to be precise and comparable. Therefore, we would like to remind companies to ensure that the quantitative data provided meets the definitions provided by RobecoSAM in the question information texts, and that any deviations are clearly explained in the comment fields provided. It remains essential that companies consult the information texts each year, and read the question texts carefully to review what has changed from one year to the next. Please ensure that data is reported in the specified units given in the question, and that any conversions to these units are performed correctly. Reporting and collecting high quality sustainability information is the critical first step towards ensuring that sustainability information is more widely accepted and used by the investment community. If you are unsure about anything around data operationalization please do not hesitate to contact our dedicated helpline: assessments@robecosam.com

1.5 Supporting References & the Company Comment Field

In dialogue with companies, we consistently hear about increasing reporting fatigue. In the midst of our other efforts to reduce the burden on companies responding to the CSA, including this year's deletion of numerous questions from the CSA as well as our clarification around public and partially public supporting evidence, we strived to clarify our expectations around references and comments. RobecoSAM continues to receive tens of thousands of documents each year from companies as supporting evidence, even when not required. Examples are always welcome, but we kindly ask you to carefully review the documents you attach, ensuring they are truly relevant to the questions being asked.

RobecoSAM regularly includes individual text fields within the question layout to allow companies to provide explanations or descriptions if RobecoSAM requires these to assess the data provided. In these questions, information provided in these fields should relate specifically to the data reported, in line with the exact question being asked by RobecoSAM — no additional comments describing related initiatives, etc need to be provided in the company comment field.

While we will continue to read all the commentary provided in the company comment section at the bottom of each question as supporting evidence for all questions, we kindly ask companies to meet us in the middle by reducing the length of comments provided, and ask you to follow a few guiding principles:

- Providing explanatory comments should be the exception rather than rule.
- Additional comments should primarily be used to explain changes in data, calculation methodologies, or why a question is not applicable to your business model. If data provided does not fit the format of the question asked by RobecoSAM, you can use the comment field to explain how the data may differ.
- Be brief and to the point. Please make sure that the provided information specifically relates to the question and to the reported data.

Beyond these cases, unless a company fails to provide the information requested in the question layout itself yet manages to provide that information in the company comment (thus resulting in RobecoSAM analysts using this additional information to give the company as much credit as possible) the company comment section does not directly contribute to the final score of a question of a given question. **Long comments do not equal better scores.**

Therefore, please make sure you focus on making comments and attaching documents that you **want** us to read and **are essential** for understanding your response, and please be as specific as possible in terms of the page number and sections of the relevant documents. For questions where we do not explicitly require evidence, you may attach documents in the document library, but we do not guarantee we will review them.

1.6 Non-English Documents

We recognize that a large number of CSA participants are based in non-English speaking countries, and that often their base of operations may also be concentrated in these countries. Nevertheless, the official language of the CSA is English and we rely on clear translations and summaries of foreign-language texts to verify your answers and supporting evidence provided, as stated in our Language Policy.

2 Scoring Methodology

2.1 2018 Scoring Methodology Updates

In line with growing investor interest in monitoring corporate controversies, RobecoSAM has increased the significance of our Media and Stakeholder Analysis (MSA) within the overall Corporate Sustainability Assessment. In the past, we granted points to companies in criteria impacted by the MSA on the basis of *not* having an MSA case. As of 2018, this positive score contribution has been eliminated: this means that **both companies with MSA cases and companies without MSA cases could see lower scores on the criterion level and the total sustainability score**, as demonstrated in Figure 1 below. An example of how this scoring process for companies *without* MSA cases is provided in Figure 2, however for the sake of simplicity, we've also prepared a brief video regarding this scoring methodology update.

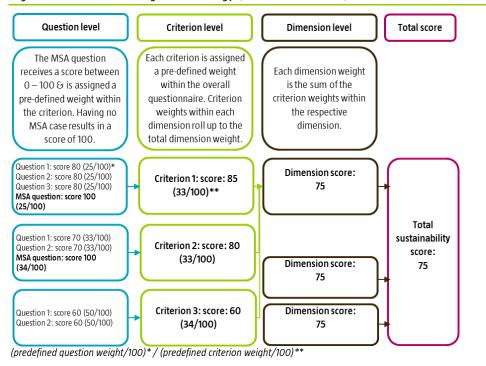
To improve upon the CSA's benchmarking functionality, our **new digital scorecard** provides you with a year-on-year comparison of your 2018 score and percentile changes using re-calculated 2017 scores (retroactively applying the new scoring methodology): to explain these features, we've prepared a brief **video summarizing** these new functionalities.

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Figure 1: Example of Average Score Effects from 2018's Scoring Methodology Changes

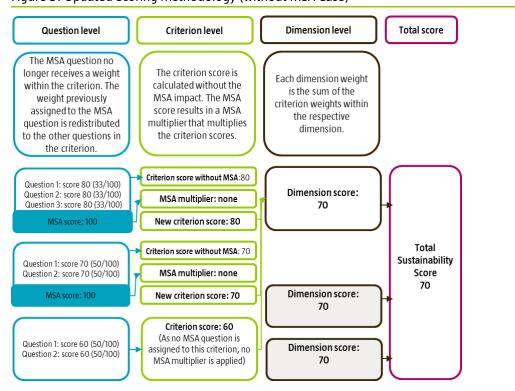
Source: RobecoSAM Corporate Sustainability Assessment (CSA) 2017 & CSA 2018

Figure 2: Previous Scoring Methodology (without MSA Case)



Source: RobecoSAM

Figure 3: Updated Scoring Methodology (without MSA Case)



Source: RobecoSAM

While it may seem initially confusing, Figures 2 and 3 illustrate how, due to the removal of the positive MSA impact, the score of a company with no MSA case drops from 75 in the previous methodology to 70 in the updated methodology. This is an illustrative example, i.e. the total score impact of the updated scoring methodology for a company without MSA impact varies significantly as a function of a company's industry and performance.

2.2 Question scoring

The maximum score for each question is 100. The various answer options within a question are scored individually or in combination, with the total sum resulting in a maximum of 100 points. As a result, removing or adding options to a question may impact the overall weight of each question component and thus the overall scoring of the question. Therefore, it is **important to carefully review each question each year**, as new elements may have been added, or other options removed. Examples of the major changes to questions will be discussed in section 3.

2.3 Criterion scoring

Criterion scores are determined by a weighted sum of question scores. As previously described, adding or removing questions within a criterion will shift the weight of individual questions, and therefore impact the criterion score. Therefore, it is possible that a criterion score may change, even if the answers provided to the individual questions have not changed from one year to the next, given question deletions, new questions, or if the underlying scoring scheme at the question level has changed.

2.4 Criterion Percentile Rankings

In addition to the absolute criterion score, companies receive a percentile ranking for each criterion. The percentile ranking represents the percentage of assessed companies that have received a lower score than the company in question. For example, if a company has a percentile ranking of 95 for a specific criterion, this means that the company scored higher than 95% of the companies in its industry. As the methodology is continuously developed and question and criterion weightings may shift over time, the percentile ranking is a useful tool to track performance against industry peers, as it shows the relative performance rather than the absolute performance of the company.

2.5 Weights

As part of our effort to increase transparency towards companies, RobecoSAM publicly discloses the **criterion** weights for all industries on the Corporate Sustainability Assessment website. The weightings of both individual questions and criteria are subject to annual review, based on the materiality of each topic to an industry and question introduction or deletion. As a result, criterion scores may change due to a change in the underlying question weights. When introducing new criteria, RobecoSAM aims to set the weight of these criteria low in the initial years, as to allow companies to adjust to the new concepts and improve their data collection and reporting systems in these areas.

2.6 Scoring variations

- a. Transparency / Disclosure vs. Performance Scoring. Changes in scores can result from a change in scoring approaches, moving from "disclosure" scoring towards "performance" scoring. "Disclosure" scoring awards points for qualitative or quantitative information without placing any value judgment on the answer. For example, if the questionnaire asks for the share of female managers, the score could be driven by the company's ability to report the number of women in management, indicating that this is something the company is actively tracking (disclosure). Alternatively, with "performance" scoring, the score would be driven by the actual number of female managers, measured against the total number of managers (performance). When introducing new questions asking for quantitative information, the initial focus is typically on disclosure scoring, awarding points to companies that are able to disclose relevant information, then as data collection and reporting mature over time, performance scoring may be introduced to capture a trend over time or measure a company's performance relative to peers.
- **b. Public vs. Non-public information.** In line with the growing demand for accountability and transparency, our methodology increasingly focuses on assessing publicly available information.
- c. Linear Peer Group Scoring. Linear performance scoring was introduced in 2014 to some questions in order to measure a company's performance relative to industry peers. Previously, a company's performance over time was measured solely on the basis of the company's own relative or absolute improvement.

Below is an overview of different types of scoring used. Please note that "transparency" and "performance" refer to the scoring approach used for that specific question. One specific question can include either transparency, performance, or a combination of the two elements, but ultimately one Total Sustainability Score will be calculated, consisting of both transparency and performance components. In the 2018 CSA Companion we provided an indication of the assessment scheme for the cross-industry questions of the CSA.

Figure 4: Overview of Scoring Types

Scoring Type	Description	Sample Questions
_	Public disclosure	Human Rights Disclosure
Transparency	Availability of qualitative or quantitative information	Largest Contributions and Expenditures
Desfermence	Scoring of qualitative or quantitative data based on predefined thresholds or expectations.	Board StructureHuman Rights Assessment
Performance	Trend scoring on company's own performance over time	Operational Eco-Efficiency
auren Dahara CAM	Linear peer group scoring	Lost Time Injury Frequency RateEmployee Turnover Rate

3 Major Methodology Updates in 2018

3.1 **Corporate Governance**

Corporate governance systems ensure that a company is managed in the interests of shareholders (including minority shareholders). Empirical evidence suggests that over a period of 5 years, the difference in return on equity between well-governed and badly-governed companies can be as much as 56% (GMI 2007). RobecoSAM's Corporate Governance criterion includes questions on board structure, board effectiveness and measures to ensure alignment with shareholders' long-term interests, which include transparency and the structure of executive remuneration as well as share ownership requirements. Provided information should always be as up-to-date as possible, reflecting the current governance structure and processes of the company.

In 2018, we revised two existing questions and introduced four new questions, making all questions in the Corporate Governance criterion mandatory public (with the exception of the question on Disclosure of Median/Mean Compensation of all Employees & CEO Compensation). The question previously called "Executive Compensation - Success Metrics and Vesting" was split into the reviewed "Executive Compensation - Alignment with Long Term Performance" question and the new "Executive Compensation - Success Metrics" question. We added completely new questions on companies' share ownership structure and voting rights. Brief insights from these newly introduced Corporate Governance questions follow below.

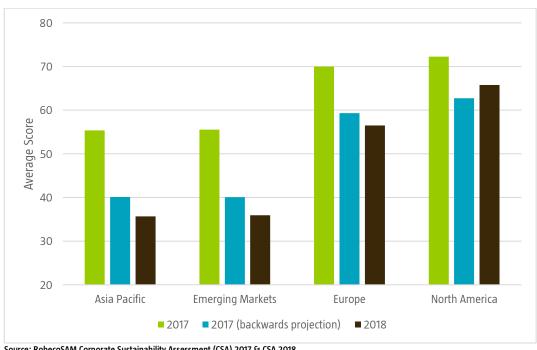


Figure 5: Corporate Governance: Average Criterion Score Changes by Region

Source: RobecoSAM Corporate Sustainability Assessment (CSA) 2017 & CSA 2018

Figure 5 shows that the average Corporate Governance criterion scores of participating companies declined significantly from 2017 to 2018, due to both the new questions and due to increased disclosure requirements. Particularly scores in Asia Pacific and Emerging Markets declined quite dramatically, highlighting major regional differences in transparency, something to be addressed by all companies globally in order to increase transparency with investors.

3.1.1 Management Ownership

As corporate governance systems aim to ensure that a company is managed in the interests of its shareholders, in this question we assess whether the company's CEO and other executives own shares in the company, as academic research suggests that stock ownership by senior management is positively correlated with financial performance. On the basis of the CEO and other executives' share ownership (assessed on the basis of the multiple between base salary and the value of shares owned), one can see clear regional differences.

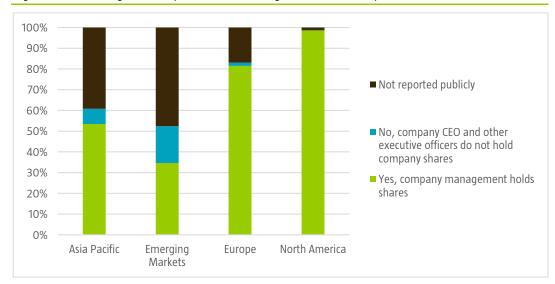


Figure 6: Percentage of Companies with Management Ownership

Source: RobecoSAM Corporate Sustainability Assessment (CSA) 2018

While in Figure 6 there are very notable regional differences between the percentage of companies with management ownership, with Emerging Markets companies at the low end and North America at the opposite end, the sectoral view shown in Figure 7 is more mixed.

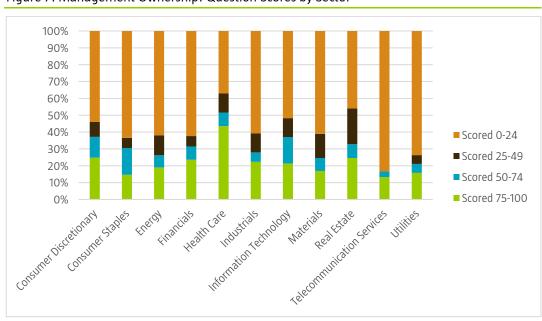


Figure 7: Management Ownership: Question Scores by Sector

Source: RobecoSAM Corporate Sustainability Assessment (CSA) 2018

3.1.2 Government Ownership

As corporate governance systems aim to ensure that a company is managed in the interests of its shareholders, in this question we assess if a government has voting rights of more than 5% and if the government has golden shares at the company. Academic research (e.g. Goldeng et. al., 2008 or Chen et. al., 2017) suggests that companies without government ownership perform better than companies with government ownership. We found a very limited number of companies reported governmental golden shares, but significantly more companies did indeed have government ownership of company shares.

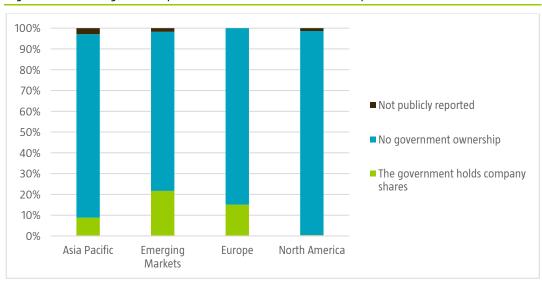


Figure 8: Percentage of Companies with Government Ownership

Source: RobecoSAM Corporate Sustainability Assessment (CSA) 2018

While in Figure 8 one can see that the percentage of companies where the government owns shares is highest amongst companies based in emerging markets, Figure 9 clearly shows that the average government ownership share reported is highest in Asia Pacific, with North American companies reporting a very low ownership share in comparative perspective.

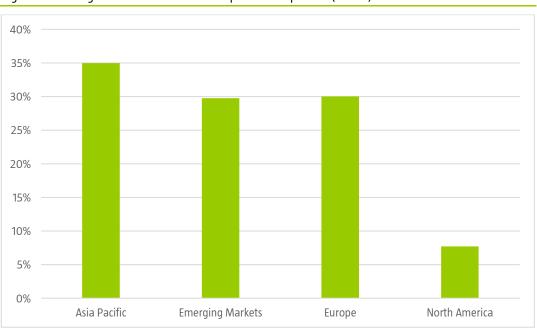


Figure 9: Average Government Ownership Share Reported (n=113)

Source: RobecoSAM Corporate Sustainability Assessment (CSA) 2018

3.1.3 Family Ownership

As corporate governance systems aim to ensure that a company is managed in the interests of its shareholders, in this question we assessed if one or several individuals of the founding families are ultimate owners and have more than 5% of the voting rights. Academic research (e.g. Eugster & Isakov, 2016 or Corstjens, Peyer & Van der Heyden, 2006) suggests that family ownership is positively correlated to future operating profit. This question works to allow for this effect and counteract some of the other questions within the criterion, which would punish companies with, for example, a lower degree of independence of the board.

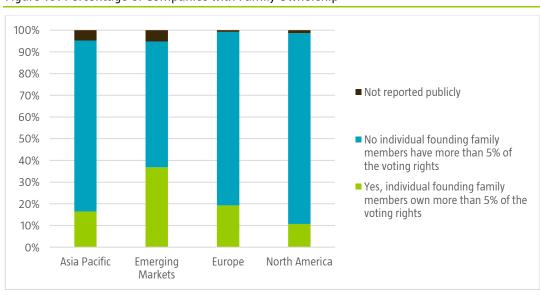


Figure 10: Percentage of Companies with Family Ownership

Source: RobecoSAM Corporate Sustainability Assessment (CSA) 2018

On the basis of Figure 10 one can see that the percentage of companies where the founding family owns shares is highest amongst companies based in emerging markets, and Figure 11 clearly shows that the average family ownership share reported is also highest in emerging markets, with companies in Asia Pacific reporting the lowest family ownership share.

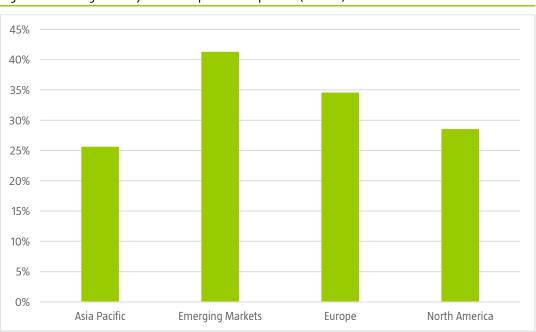


Figure 11: Average Family Ownership Share Reported (n=204)

Source: RobecoSAM Corporate Sustainability Assessment (CSA) 2018

3.1.4 Dual Class Shares

The traditional one-share, one-vote system has been designed to give equal treatment to all shareholders, as capital providers should have a say in how a company is run. Voting is an important tool to secure good corporate governance and ensure that asset owners are able to make the board accountable and ensure long-term value creation. In contrast, dual class shares give more voting rights to people or organizations that provided less capital to the company. It is therefore important that all shareholders have equal voting rights to ensure long-term thinking and hold the board of directors accountable on their decisions.

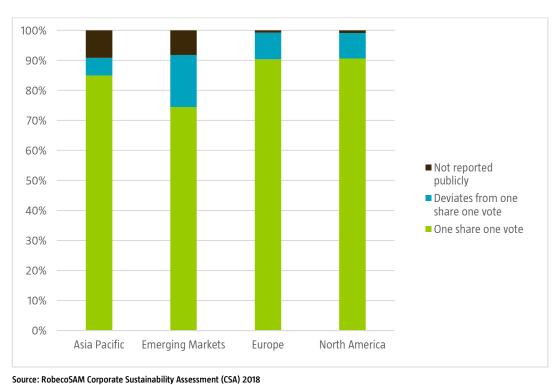


Figure 12: Percentage of Companies with Dual Class Shares

While the majority of companies responding to the CSA follow the one-share, one-vote system, Figure 12 shows that approximately 10% of companies from each region deviate from this approach, with the highest deviance reported in emerging markets. As other corporate governance questions, this question required public reporting, and thus clear and unequivocal public reporting of voting rights was required.

3.2 Tax Strategy

Tax competition between tax territories (countries or regions within countries) has left room for companies to optimize their tax spending. While tax optimization has a positive impact on profitability and hence company value, a too-aggressive tax strategy might not be sustainable in the mid- to long-term and adds some risk to long-term profits. First, there is a reputational risk because of increased public and regulatory scrutiny which could result in lower brand value. Second, the relationship with the host country may be negatively impacted. This could result in approval delays or rejection of expansion projects or, in the worst cases, companies risk losing their license to operate. Third, earnings might be impacted if the tax authorities decide to change tax regulation which leads to direct financial risks. Finally, economic development risk arises if governments receive inadequate tax receipts for funding local infrastructure or education.

We first introduced our Tax Strategy criterion in 2014, and updated it in 2018 to renew the focus on transparency. We've made the criterion **completely public** in 2018, and added a question assessing companies' effective tax rate vis-à-vis companies in the same industry group. The tax strategy criterion comprises three questions on the company's tax strategy itself, their tax reporting, and new this year, their average effective tax rate. In addition, companies' answers are complemented by a Media and Stakeholder Analysis. The purpose of this criterion is to assess if companies are transparent with stakeholders around their approach to tax and taxation risks. In the context of the OECD's initiatives against corporate base erosion and profit shifting (BEPS) the topic of tax is becoming increasingly material, and is a perfect example of a topic with important implications for sustainability broadly construed. In light of increasing awareness of companies' roles and responsibilities towards society, shared value creation and reputational and financial risks, transparent reporting on the topic of taxation has become best practice.

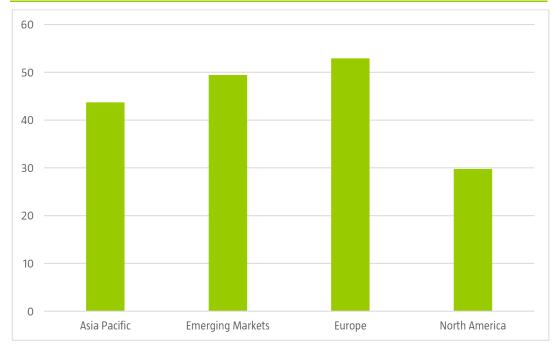


Figure 13: Tax Strategy – Average Criterion Score

Source: RobecoSAM Corporate Sustainability Assessment (CSA) 2018

Of the 697 companies with the Tax Strategy criterion in their Corporate Sustainability Assessment, Figure 13 shows that with the 2018 focus on transparency, European companies led the way, closely followed by companies based in emerging markets. North American companies performed the worst, suggesting disclosure around tax beyond standard required financial disclosures is lagging.

3.2.1 Tax Strategy

Often, tax avoidance strategies are drawn up in a legally sound way. Therefore, just having a general statement in the financial report which states that the company intends to comply with all tax laws and regulations in its countries of operations is not sufficient. According to KPMG "every company should be in a position to give a coherent justification of their approach to key tax issues such as the use of tax minimization techniques, which is consistent with their approach to other CSR issues." The tax strategy question seeks to determine if there is a clear and transparent tax policy or strategy available in the public domain that addresses sensitive or high-risk tax issues. Of the 697 companies with the tax strategy criterion, 327 had a publicly available tax policy/strategy/set of principles indicating their approach to taxation and covering at least one of five elements:

- A commitment to compliance with the spirit as well as the letter of the tax laws and regulations in the countries in which the company operates
- A commitment not to transfer value created to low tax jurisdictions
- The use of tax structures intended for tax avoidance
- The company's approach to transfer pricing
- The use of secrecy jurisdictions or so-called "tax havens"

On average, our decision to make the Tax Strategy question solely public resulted in decreases in average question scores across all regions, with the exception of emerging markets companies.

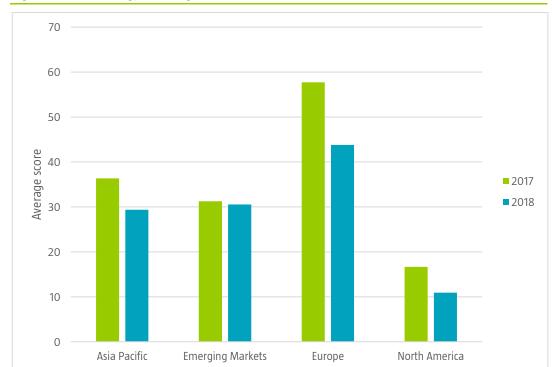


Figure 14: Tax Strategy – Average Question Score

Source: RobecoSAM Corporate Sustainability Assessment (CSA) 2018

As show in Figure 14, the aspects most frequently included in global companies' tax strategies was compliance with the spirit as well as the letter of the law, followed by a statement around the company's approach to transfer pricing. North American companies lag far behind companies from other regions in their policies' coverage of the use of tax havens.

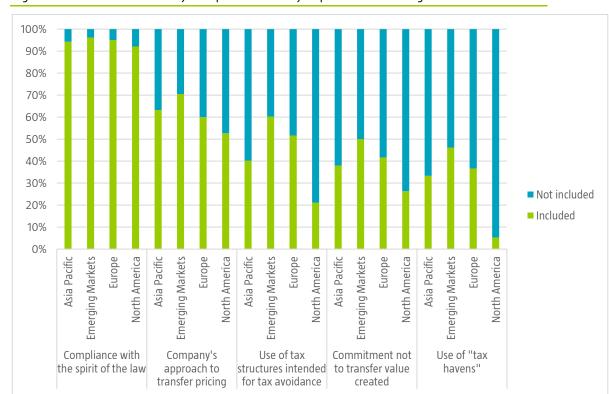


Figure 15: Elements Covered by Companies' Publicly Reported Tax Strategies

Source: RobecoSAM Corporate Sustainability Assessment (CSA) 2018

From Figure 15 it is clear that amongst the 327 companies with tax strategies covering at least one of the five required elements, the most frequently occurring aspect is a corporate commitment to compliance with the spirit as well as the letter of the tax laws and regulations in the countries in which the company operates.

3.2.2 Effective Tax Rate

Multinational organizations have attracted significant public scrutiny and criticism in recent years, with concerns that they are not paying their "fair share" of tax in all of the jurisdictions in which they create value. In light of these and other concerns, in 2013 the G20 asked the Organization for Economic Co-operation and Development (OECD) to create an Action Plan on Base Erosion and Profit Shifting (BEPS). BEPS is intended to eliminate tax mismatches, align profits to where value is created, and enhance transparency for tax authorities across the global landscape. In recent years, we have seen numerous examples of authorities taking action to recover these lost tax revenues, with large settlements that will impact future earnings. This question aims to assess whether or not discrepancies may exist between companies' reported tax rates and expected tax rates. While often legitimate, large differences may indicate overly aggressive tax optimization, which in turn may serve as a potential source of risk for a company. This question assesses the reported tax rate and cash tax rate for the last two years.

On the basis of collected financial data, we established average effective tax rates and average cash tax rates across 24 GICS® industry groups and communicated these averages in advance to companies so they could see how their company's rate compares with that of their industry peers. Companies with a tax rate below the industry group average were scored on their distance from that established average. In order to avoid penalizing companies with reasonable explanations for their deviation from the average, companies with averages below these industry averages were offered the option to provide reasoning for these low tax rates, if that explanation was valid and supported with evidence from the public domain. Acceptable reasons for low tax rates included:

- Group-wide net operating losses: "Net operating losses (NOL) are a tax credit created when a company's
 expenses exceed its revenues, generating negative taxable income as computed for tax purposes. NOL
 can be used to offset positive taxable income, reducing cash taxes payable. NOL can be carried back 2
 years to recover past taxes paid, and forward 20 years to offset taxable income in future periods. After 20
 years, any remaining NOL expire and are no longer available for use. NOL carried forward are recorded on
 the balance sheet as deferred tax assets (DTA)." Source: Macabacus
- Non-recurring (one-time) losses in own operations: Non-recurring (one-time) losses are irregular or
 infrequent losses (e.g., write-off of a large investment, large settlement or fine) that would offset
 ongoing income generated.
- Net operating losses from acquired companies: This option refers to "taxable acquisitions in which the acquired net assets are stepped-up for tax purposes, the target's net operating losses (NOL) may generally be used immediately by the acquirer to offset the gain on the actual or deemed asset sale." Source: Macabacus
- Single jurisdiction tax code (e.g. low domestic rate and maximum 10% sales abroad): Certain countries (e.g. Ireland) have a low tax rate for companies. Therefore, certain countries will have a lower tax rate than the average in the industry. If your company has more than 90% of sales domestically, this option can be ticked.
- **Timing Issues outside of the two years period**: This option refers to an event that happened outside of the two years and was carried forward to the two last fiscal years. This could be losses from the own operation as described above.

If a company with average rates below the industry group average provided argumentation that was either unreasonable or unsupported by evidence in the public domain, the argumentation was not accepted. We intend to provide additional clarification around this topic in 2019, but because there were many cases of companies ticking options with argumentation vastly different from the definition of that concept which we had provided, we *strongly* suggest that companies review the alignment between their provided answers and the definitions provided.

On the basis of feedback from companies both gathered thus far and still to be collected via the webcast, we anticipate some small changes to this question for 2019, including assessing the *three-year* average rather than the two-year average of the effective tax and cash tax rates, auto-calculation of the rate on the basis of the figures reported, and further clarification and definition of the acceptable reasoning for tax rates below the industry average. As even within industry groups there is considerable variation in tax rates, we are considering applying industry-specific scoring in coming years.

92 90 88 86 Average Score 84 82 80 78 76 74 72 Asia Pacific **Emerging Markets** Europe North America

Figure 16: Effective Tax Rate – Average Score by Region

Source: RobecoSAM Corporate Sustainability Assessment (CSA) 2018

Figure 16 shows that, taken on average, companies scored well on this new question. This is in line with the intentions for the question, which was that only companies well outside the established averages would be negatively impacted by the question scoring.



Figure 17: Frequency of Low-Tax Rate Reasons Reported by Region

Source: RobecoSAM Corporate Sustainability Assessment (CSA) 2018

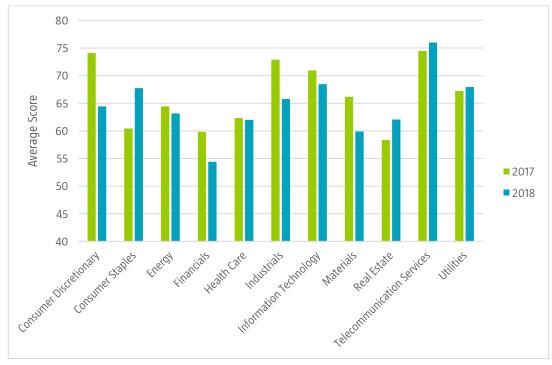
From Figure 17 it is clear that reasoning provided for low tax rates was acceptable in a very limited number of cases. The high occurrence of emerging markets companies subject to a single jurisdiction tax code is arguably due to the smaller size (and thus smaller base of operations) of companies invited for DJSI Emerging Markets and other related indices.

3.3 Climate Strategy

In line with the methodology updates to CDP's 2018 Climate Change questionnaires, and in order to align with TCFD Recommendations, we extended the climate strategy criterion's applicability to *all* industries, updated five of the questions and added a new question on Scenario Analysis. In addition to our updates of the questions on Internal Carbon Pricing and Scope 3 GHG emissions which we delve into below, we updated the questions on Management Incentives, Climate-related Targets, and Low-Carbon Products.

RobecoSAM CSA 2018	CDP questionnaire 2018
Management Incentives	C1.3a. Employee incentives
Scenario Analysis	C3.1 Business Strategy
	C3.1a Climate-related scenario analysis
Climate-Related Targets	C4.1a Absolute targets
	C4.1b Intensity targets
Low-Carbon Products	C4.5a. Low-carbon products
Scope 3 GHG Emissions	C6.5 Scope 3 emissions data
Internal Carbon Pricing	C11.3a Internal price on carbon

Figure 18: Climate Strategy: Average Criterion Score



Source: RobecoSAM Corporate Sustainability Assessment (CSA) 2017 & CSA 2018

As can be seen in Figure 18, results were mixed across different sectors, with some sectors average score for the criterion increasing with the changes in the climate strategy criterion, and some decreasing.

3.3.1 Scenario Analysis

Today, many companies are affected by climate change related risks. However, the most significant effects of climate change are likely to emerge over the medium to long term, and the precise timing and magnitude of these impacts remain uncertain. This uncertainty poses a challenge for companies and investors' understanding of the potential effects of climate change on their businesses and financial performance. Climate-related scenario analysis is a strategic planning tool to help companies consider how such risks and opportunities may evolve and what the potential implications may be under different conditions. A recent report from the Task Force on Climate-Related Financial Disclosures stated:

"The Task Force believes that **all organizations exposed to climate-related risks** should consider (1) using scenario analysis to help inform their strategic and financial planning processes and (2) disclosing how resilient their strategies are to a range of plausible climate-related scenarios."

With all this in mind, we introduced the "Scenario Analysis" question to 28 of the 60 RobecoSAM industries. To perform well on this question, companies need to use a quantitative approach to climate-related scenario analysis that informs their business strategy. This should take the form of a recognized approach to scenario analysis or their scenario analysis should contain a series of critical parameters (e.g., discount rate, GDP, other macro-economic variables etc.) and assumptions that define the key drivers and development pathways over the scenario's timeframe, such as policy changes, technology development/deployment, energy mix, price of key commodities or inputs, geographical tailoring of transitional and physical impacts, and timing of potential impacts.

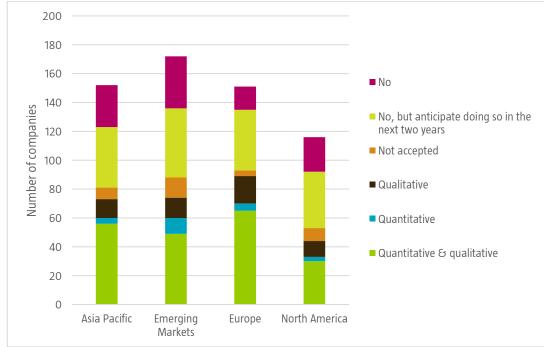


Figure 19: Companies using Climate-related Scenario Analysis to Inform Business Strategy

Source: RobecoSAM Corporate Sustainability Assessment (CSA) 2018

From Figure 19 it is clear that the majority of participating companies with the Scenario Analysis question either already use climate-related scenario analysis to inform their business strategy or anticipate doing so in the next two years. More companies perform both qualitative and quantitative analysis than simply one or the other.

3.3.2 Internal Carbon Pricing

The question on internal carbon pricing applies to 31 industries across 7 of the 11 GICS® sectors. Many major publicly-traded companies have integrated an "internal carbon price" as a core element in their ongoing business strategies. Such carbon pricing has become standard operating practice in business planning as a means of testing strategic and investment assumptions' vulnerability to increasingly stringent climate-related regulations and the broader emergence (explicitly or implicitly) of a cost of carbon. With this question, RobecoSAM asks whether companies use an internal price of carbon to anticipate eventual regulatory action to address climate change. We expanded the scope of the question, which previously simply asked an internal price of carbon to be used and reported and now required that companies:

- specify their objective in implementing an internal carbon price
- specify the approach used for the carbon price setting
- specify the type of internal carbon price they use (e.g. shadow price, internal fee, offsets etc.)
- apply the established internal price of carbon company-wide

100% 90% 80% Percentage of companies 70% No 60% 50% ■ Yes, use an 40% internal price of carbon 30% 20% 10% 0% Materials Industrials Realistate Utilities

Figure 20: Percentage of Companies with an Internal Price on Carbon

Source: RobecoSAM Corporate Sustainability Assessment (CSA) 2018

From Figure 20 it is clear that there is quite a difference between sectors in terms of the percentage of companies with an internal price on carbon, from almost 70% of utilities to less than 20% of real estate companies. We anticipate that this figure will grow over time as climate regulation risks continue to materialize.

3.3.3 Scope 3 GHG Emissions

While many climate-change risks and impacts can be attributed to companies' direct activities, many may lie elsewhere in the value chain. Today, Scope 1 and 2 emissions are broadly reported, but quantifying and reporting on Scope 3 emissions pose a bigger challenge for companies. Increasingly, it is becoming important to understand the source of these emissions and how companies can work to decrease the impact of their indirect activities.

With this question, RobecoSAM assesses the extent to which companies consider Scope 3 emissions in their value chain and asks for the three most relevant sources of companies' scope 3 emissions. In addition to requesting an explanation of these sources' relevance, we asked for the amount of the metric tons CO2e from each source along with the coverage of emissions per source and a short description of the emissions calculation methodology used.



Figure 21: Scope 3 GHG Emissions: Average Question Score

Source: RobecoSAM Corporate Sustainability Assessment (CSA) 2018

From Figure 21 it is clear that, on average, European companies are furthest along in terms of their quantification and reporting on scope 3 emissions, however there is not a significant point gap between Europe and Emerging Markets as the question was scored on disclosure this year. As disclosure-based questions shift towards performance scoring over time, further differentiation is to be expected.

100% 90% Other downstream 80% Other upstream ■ Investments 70% Franchises Downstream leased assets 60% ■ End-of-life treatment of sold products ■ Use of sold products 50% ■ Processing of sold products (downstream) ■ Downstream transportation and distribution 40% ■ Upstream leased assets ■ Employee commuting 30% ■ Business travel ■ Waste generated in operations (composting, incinerating) 20% Upstream transportation and distribution ■ Fuel- and energy-related activities 10% (not included in Scope 1 or Scope 2) ■ Capital goods (upstream) Purchased goods and services Teleconnunication Services Information Technology Ususining y ables whealth are (upstream) Energy

Figure 22: Scope 3 GHG Emissions Sources by Sector

Source: RobecoSAM Corporate Sustainability Assessment (CSA) 2018

Figure 22 provides a sectoral view of the most relevant sources of scope 3 GHG emissions reported by companies in the 2018 CSA. Clear differences in relevance can be observed by for example comparing companies in Financials and Telecommunications Services.

4 Outlook for 2019

We continuously develop our methodology to ensure that our Corporate Sustainability Assessment remains an insightful and challenging way to benchmark your company against peers. For 2019, we have focused our attention on further aligning our questionnaire — as we deem appropriate — with global reporting standards and frameworks. For a number of years we have been internally mapping our questionnaire to standards such as the GRI Standards, the soon to be released SASB Standards and continue to engage in discussions with our colleagues at CDP to ensure that we are aligned on important topics, and that we can leverage each other's expertise. As we further develop the methodology for 2019, we will keep this alignment in mind to ensure that we can benefit from the growing amount of sustainability information available in the public domain, while encouraging companies towards greater transparency and disclosure. Of course, our focus remains on financial materiality, as a result, we will endeavour to make the CSA more focused, more financially relevant and more differentiating on those sustainability topics we feel are most important.

We look forward to engaging with you via this fall's webcast series, and as always, we welcome your feedback and your suggestions which ensure that we continue to develop the CSA in a way that creates value for you and your stakeholders.

For any additional questions, please do not hesitate to contact us:

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