Sustainability

Carbon Risk Rating

Methodology & Research Process

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Version 1.0
PUBLIC DISCLOSURE ON THE METHODOLOGY, MODELS, AND KEY RATING ASSUMPTIONS USED IN ESG RATING ACTIVITIES

ISS STOXX

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Terms/Acronyms

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CRC	Carbon Risk Classification
CPS	Carbon Performance Score

Regulation (EU) 2024/3005: Public Disclosure on the Methodology, Models, and Key Rating Assumptions Used in ESG Rating Activities

This disclosure is published to meet the relevant requirements of the EU ESG Ratings Regulation (EU2024/3005) and related regulatory technical standards. The following index cross-references to the relevant information are made available within the Carbon Risk Rating Methodology Document and on our website.

Within this disclosure, the Regulation (EU) 2024/3005 of the European Parliament and of the Council of 27 November 2024 on the transparency and integrity of Environmental, Social and Governance (ESG) rating activities is referred to as "**Regulation (EU) 2024/3005**".

Within this disclosure, the Commission Delegated Regulation (EU) of 21 04 2026 supplementing Regulation (EU) 2024/3005 of the European Parliament and of the Council with regard to regulatory technical standards specifying the elements of ESG rating products to be disclosed to the public and to users of ESG ratings, rated items and issuers of rated items is referred to as "**Delegated Regulation**".

REGULATION (EU) 2024/3005	DELEGATED REGULATION	REQUIRED INFORMATION	ISS GERMANY AG DISCLOSURE
Rating Product Disclosures			
ANNEX III.1.f	Article 3(1)	ESG rating providers shall disclose information on the ESG rating's clearly defined objective and marking whether the rating is assessing risks, impacts, or both, according to the double materiality principle, or any other dimensions, and in the case of double materiality the proportion of the risk and impact materiality. ESG rating providers shall disclose at the level of each ESG rating product: a) a description of the risks covered, where the ESG rating is assessing risks; b) a description of the impacts covered, where the ESG rating is assessing impacts; c) information on how the risk and impact materiality are taken into account according to the double materiality principle, where applicable; d) where the ESG rating is based on other materiality dimensions, a description of those dimensions.	Please refer to: • Introduction • Carbon Risk Rating Objective • Country Carbon Risk Rating
ANNEX III.1.g	Article 3(2)	ESG rating providers shall disclose the ESG rating's scope, namely, whether it covers an individual E, S, or G factor or whether it is an aggregated rating aggregating E, S and G factors, or whether it covers specific issues such as transition risks. ESG rating providers shall disclose at the level of each ESG rating product: a) a description of what is covered under the E, S or G factors and which factors are aggregated, where applicable; b) a description of the specific issues that the ESG rating covers.	Please refer to: • Overview

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• Overview</td></tr>
<tr><td>ANNEX III.1.j</td><td>N/A</td><td>ESG rating providers shall disclose information on whether the rating is expressed in absolute or relative value.</td><td>Please refer to:
• Rating Outputs and Signals</td></tr>
<tr><td>ANNEX III.1.o</td><td>Article 3(3)</td><td rowspan="2">ESG rating providers shall disclose if an ESG rating of a rated item covers the E factor, information on whether that rating takes into account the targets and objectives of the Paris Agreement or any other relevant international agreements.
ESG rating providers shall disclose if an ESG rating of a rated item covers the S and G factors, information on whether that rating takes into account any relevant international agreements.
ESG rating providers shall at the level of each ESG rating product:
a) include an indication of whether the ESG rating takes into account the targets and objectives of the Paris Agreement and which other international agreements are considered, with reference to basic identifying information on these agreements together with an explanation of their relevance to the ESG rating;
b) specify whether the ESG rating is assessing alignment of commitments against the objectives of the agreements referred to in point (a).</td><td rowspan="2">Please refer to:
• Methodological Foundations</td></tr>
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REGULATION (EU) 2024/3005	DELEGATED REGULATION	REQUIRED INFORMATION	ISS GERMANY AG DISCLOSURE
Basic Methodological Disclosures			
ANNEX III.1.a	Article 4(1)	ESG rating providers shall disclose an overview of the rating methodologies used and changes thereto, including whether analysis is backward-looking or forward-looking and the time horizon covered. ESG rating providers shall disclose: a) the title of the rating methodology used; b) a description of the types of rated items in relation to which the methodology referred to in point (a) applies; c) the time horizon over which the ESG rating is considered valid, where applicable d) a list and overview of the relevant supporting models and key rating assumptions, where applicable; information on measures and procedures to ensure the quality and reliability of data used; e) a description of the defined ranking system of rating categories used, with reference to: i. the meaning of each rating category for absolute and relative values and how the ranking system should be interpreted; ii. in the case of relative values, an explanation as to whether they are relative to a specific industry, geographical area, peer groups or other comparative references and their respective description. f) the dates of the most recent update of the methodology and a description of the changes introduced to the previous version.	Please refer to: Points a) and f) • Appendix B: Version Control Points b) to e) • b): Carbon Risk Rating Objective • c): Update Cycles • d) Appendix A: Relevant Supporting Models and Key Rating Assumptions, Quality Assurance • e) Assessment and Scoring Approach, Rating Outputs and Signals

REGULATION (EU) 2024/3005	DELEGATED REGULATION	REQUIRED INFORMATION	ISS GERMANY AG DISCLOSURE
ANNEX III.1.b	Article 4(2)	ESG rating providers shall disclose the industry classification used. ESG rating providers shall provide: a) the name of the issuing body of the industry classification used; b) the name and version of the industry classification used; c) any publicly available link to the official documentation of the industry classification system.	Please refer to: • Carbon Performance Score
ANNEX III.1.c	Article 4(3)	ESG rating providers shall disclose an overview of data sources, including whether data is sourced from sustainability statements required under Directive 2013/34/EU or from information disclosed under Regulation (EU) 2019/2088 and whether sources are public or non-public, and an overview of data processes, estimation of input data in case of unavailability and frequency of data updates. ESG rating providers shall include a description of the engagement process with rated items or issuers of rated items, including how the input from such engagement is taken into account.	Please refer to: • Data Sources: Sources of Information • Overview of Data Processes: Data Collection • Estimation of Input Data: Use of Estimated Data • Frequency of Data Updates: Update Cycles • Engagement with rated items or issuers of rated items is not part of the Carbon Risk Rating process.
ANNEX III.1.e	Article 4(4)	ESG rating providers shall disclose information on whether and how the rating methodologies are based on scientific evidence. ESG rating providers shall where applicable, describe the process for identifying relevant scientific evidence.	Please refer to: • Methodological Foundations

REGULATION (EU) 2024/3005	DELEGATED REGULATION	REQUIRED INFORMATION	ISS GERMANY AG DISCLOSURE
ANNEX III.1.k	N/A	ESG rating providers shall disclose where applicable, reference to the use of artificial intelligence in the data collection or rating process including information about current limitations and risks of using artificial intelligence.	Please refer to: • Sources of Information
Limitations in data sources, methodologies and information			
ANNEX III.1.m	Article 5	ESG rating providers shall disclose any limitation in data sources and methodologies used for the construction of ESG ratings. ESG rating providers shall disclose any limitation on the information available to ESG rating providers.	Please refer to: • Limitations • Limitations to Methodologies & Data
ANNEX III.1.q	Article 5	ESG rating providers shall explain any limitations in respect of the following: a) the availability or consistency of data used in the rating process; b) the completeness, timeliness and accuracy of information; c) the use of assumptions, proxy reference points and data estimation.	
Organisational Disclosures			
ANNEX III.1.d	Article 6(2)	ESG rating providers shall disclose the ownership structure of the ESG rating provider. ESG rating providers shall disclose: a) a chart illustrating their ownership links with any parent undertaking and subsidiaries. The chart shall indicate, where applicable, whether any of those entities perform any of the activities listed in Article 16 (1) or services referred to in Article 16(6) of Regulation (EU) 2024/3005.	Please refer to: • Ownership Structure

REGULATION (EU) 2024/3005	DELEGATED REGULATION	REQUIRED INFORMATION	ISS GERMANY AG DISCLOSURE
ANNEX III.1.l	Article 6(3)	ESG rating providers shall disclose general information on criteria used for establishing fees charged to clients, specifying the various elements taken into consideration, and general information on the business/payment model. ESG rating providers shall disclose the following: a) how the criteria they apply for establishing fees ensure that fees are fair, reasonable, transparent and non-discriminatory in accordance with Article 27 of Regulation (EU) 2024/3005; b) whether the ESG rating provider operates a subscription-paid model, an issuer-paid model, a combination of those models, or another model; c) a description of the relevant business model, and the proportion of total annual revenue derived from each model; d) where applicable, the impact of fees charged for services other than ESG rating activities on the determination of fees for ESG ratings, together with a description of those other services.	Please refer to: • Pricing Policy
ANNEX III.1.n	Article 6(1)	ESG rating providers shall disclose the main risks of conflicts of interest and the steps take to mitigate them. ESG rating providers shall indicate the areas of the ESG rating provider's activities, services or organisational structure from which the main risks of conflicts of interest may arise.	Please refer to: • Conflict of Interest Policy

Introduction

The potential impacts of climate change on the environment, society, and financial assets have long been recognized. The Paris Agreement sets out a global action plan to limit global warming to well below 2°C and thereby mitigate climate change risks, following which many countries, and in turn individual corporations, have set up their own targets for carbon footprint reduction. Simultaneously, investors require reliable data to be able to evaluate, understand, and manage the climate-related risks of their existing or planned investments.

Climate-related financial risks are risks to a company's financial performance resulting from climate change. These risks are typically classified as: Physical Risks (e.g., extreme weather events, heatwaves, or floods) and Transition Risks (e.g., regulatory actions around climate, shift in customer behavior, or technological improvements to a low carbon economy) affecting the company's business activities. Physical risks are not considered for the assessment of this metric and are out of scope for this solution.

Carbon Risk Rating Objective

The Carbon Risk Rating (CRR) provides a sophisticated metric to evaluate how well companies are prepared for a low-carbon economy by assessing how well they manage their transition risks.

For each company within the ISS STOXX Corporate Rating Universe, the Carbon Risk Rating provides an aggregated score indicating a company's overall climate-related transition risk, using the company-specific risk exposure as baseline (Carbon Risk Classification) from which a company can take steps toward better alignment with a low carbon economy (Carbon Performance Score).

Methodological Foundations

The Carbon Risk Rating builds on (1) data collected as part of ISS STOXX's Climate Solutions, Corporate Rating, and SDG Solutions Assessment (SDGA), and (2) a proprietary methodology for determining companies' risk based on transition risks and carbon-related operations.

The assessment of company performance builds on recognized indicators of carbon management, emissions intensity, reduction targets, and transition readiness, drawing on widely accepted concepts used in climate economics, integrated assessment modelling, and science-based decarbonization pathways aligned with the objectives of the Paris Agreement. It is additionally informed by underlying datasets which themselves are informed by international normative frameworks, including the United Nations (UN) Global Compact Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises on Responsible Business Conduct, and the UN Sustainable Development Goals (SDGs), as well as mandatory and voluntary disclosure standards such as the IFRS Sustainability Disclosure Standards (IFRS S1 and IFRS S2) issued by the International Sustainability Standards Board (ISSB); the Sustainability Accounting Standards Board (SASB) Standards, now part of the ISSB, and the European Sustainability Reporting Standards (ESRS) developed under the scope of the European Union's Corporate Sustainability Reporting Directive (CSRD). Many of these frameworks are – to varying degrees – based on scientific evidence.

In addition, the performance expectations and assessments of the underlying datasets are grounded in the aforementioned international agreements, norms, and regulatory frameworks and to an extent measure alignment with the objectives of these frameworks, including the Paris Agreement, across company policies, actions, and targets. Accordingly, particularly through the derivation of the Carbon Performance Management Score, the Carbon Risk Rating takes into account, and assesses the alignment of commitments against, the targets and objectives of the Paris Agreement and other relevant agreements.

Methodology Review

The Carbon Risk Rating methodology is subject to periodic reviews and updates that are overseen by ISS STOXX's Sustainability Methodology Review Board which comprises experienced methodology and research leaders across jurisdictions. Reviews consider factors including regulatory developments, existing and emerging disclosure standards, increasing stakeholder expectations, academic research, and industry and technological developments. Relevant upcoming methodology changes are communicated to clients on a quarterly basis.

The solution's underlying methodology is considered valid until an update is carried out. Triggers of methodology update include updates from input data sources, methodology developments of upstream solutions, and feedback from internal and external stakeholders.

Assessment and Scoring Approach

Overview

The Carbon Risk Rating (CRR) is a holistic and forward-looking assessment of the climate-related transition risks of companies. It provides an opinion on the extent to which a company can mitigate transition risks based on its specific baseline carbon risk exposure. For this assessment, each company is assigned a company specific baseline risk and a performance assessment measuring to what extent a company manages these risks and opportunities.

The CRR is based on two complementary elements:

- **Carbon Risk Classification (CRC):** a classification of a company's exposure to climate-related transition risks based on its subsector assignment and company-specific business activities.

- **Carbon Performance Score (CPS):** a metric for the current carbon-related operational performance of a company as well as its capabilities to seize climate-related transition opportunities and manage its industry-specific climate-related transition risks in the future.

The CRR covers the topic of climate change mitigation which corresponds to the ESRS E1 topic of Climate change from the sustainability reporting standards developed pursuant to Article 29b of Directive 2013/34/EU.

Carbon Risk Classification (CRC)

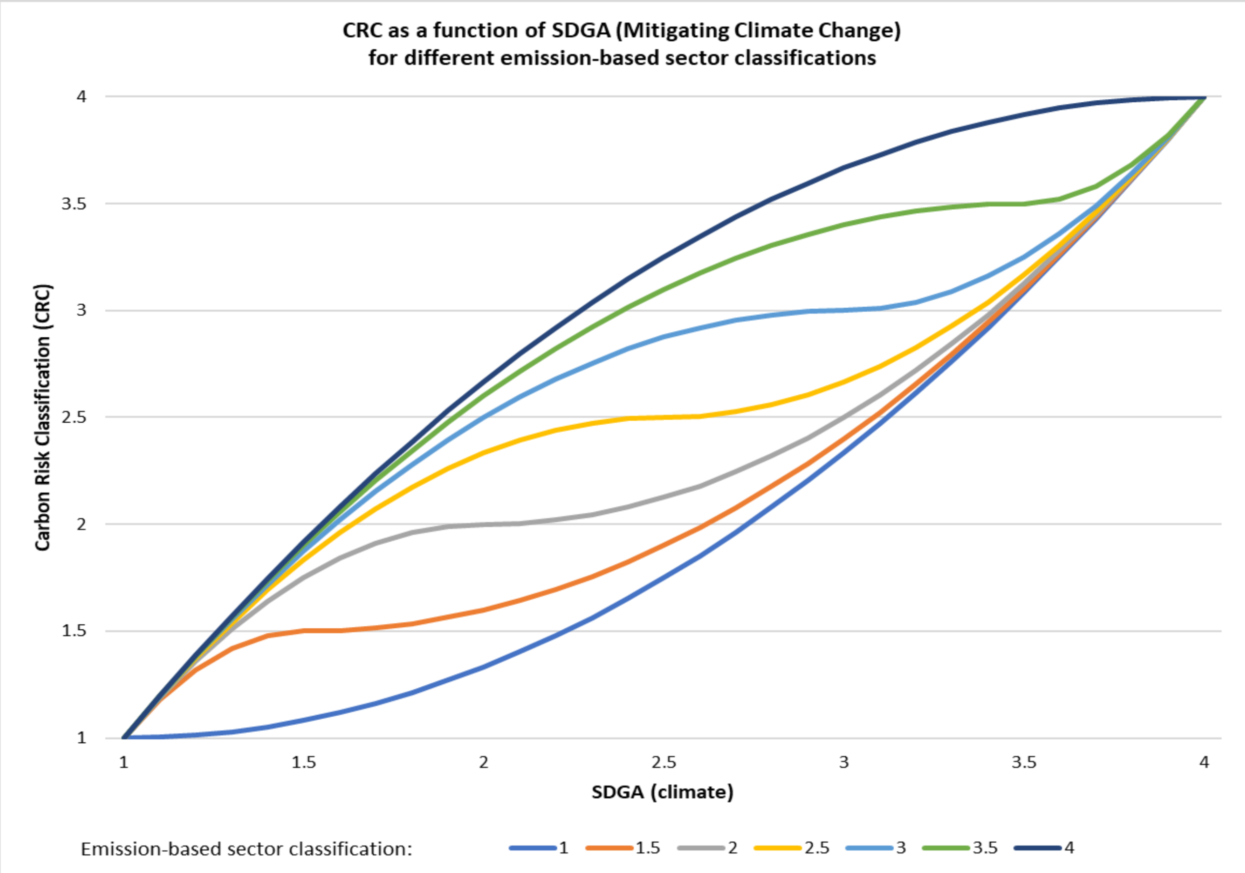
The Carbon Risk Classification (CRC) assesses a company's exposure to climate-related transition risks by estimating its emission intensity in the company's value chain, based on its industry and business activities. The CRC considers two elements:

- The **emission-based sector classification**, a proprietary classification, which assesses the average sector emission intensity along the entire value chain (i.e., direct and indirect scope 1, 2 and 3 emissions) of 128 industries identified using a proprietary industry classification system based on their carbon profile. For reasons of scale comparability across all underlying components of the rating calculation, the sectors are assigned a risk value from grade 1 (sectors with highest emission intensities) to grade 4 (sectors with lowest emission intensities) based on average sector emissions in steps of 0.5.

- **A company's product portfolio**, which is assessed using the SDG Solutions Assessment (SDGA), which measures the positive and negative sustainability impacts of companies' product and service portfolios following the United Nations Sustainable Development Goals (UN SDGs) as a reference framework. The UN SDGs are mapped to 15 Objectives within the SDGA which are relevant for the private sector and from a product portfolio perspective. To assess the CRC, the SDGA Objective "Mitigating Climate Change" is used. This objective is to stabilize greenhouse gas concentrations in the atmosphere at a level that would hold the increase in the global average temperature to well below 2°C or even 1.5°C above preindustrial levels. Each company's product portfolio has a grade between 1 (indicating all revenues generated from products significantly obstructing the goal of mitigating climate change) and 4 (indicating all revenues generated from products significantly contributing to mitigating climate change).

The design of the CRC calculation is such that the CRC and the weight of the SDGA Mitigating Climate Change objective increases linearly with its distance from the emission-based sector classification (average sector emission intensity). For companies whose SDGA Mitigating Climate Change scores deviate strongly from the average sector emission intensity value, i.e., companies with products and services largely contributing to or obstructing climate change mitigation, the CRC will be dominated by the SDGA assessment. In comparison, the emission-based sector classification will be decisive for the CRC for companies offering rather neutral products and services.

Figure 1: Carbon Risk Classification as a function of SDGA (Mitigating Climate Change) by emission-based sector classification



Combining the product portfolio assessment, i.e., SDGA (Mitigating Climate Change), with the emission-based sector classification accounts for the significantly lower transition risk of companies that are assigned to a generally emission-intensive industry (low grade for emission-based sector classification)but provide products and services supporting the mitigation of climate change (high grade for SDGA), e.g., renewable energy utilities or companies providing insulation materials for buildings. At the same time, it ensures that companies with a high share of climate obstructing products and services are adequately assessed with high risk, regardless of their initial sector classification.

Table 1: Examples for Carbon Risk Classifications resulting from the combination of the emission-based sector classification and the product portfolio assessment with respect to mitigating climate change, SDGA (Mitigating Climate Change)

COMPANY	SUB-SECTOR	EMISSION-BASED SECTOR CLASSIFICATION	BUSINESS MODEL	PRODUCT PORTFOLIO, I.E., SDGA (MITIGATING CLIMATE CHANGE)	CARBON RISK CLASSIFICATION (CRC)
Company A	**Mixed Electricity**	1 *high average sector emission intensity*	produces electricity largely based on coal and oil	1.66 *negative*	**1.51** ***high risk***
Company B			produces electricity largely based on wind power	3.14 *positive*	**2.58** ***low risk***
Company C	**Auto- mobiles**	1.5 *high average sector emission intensity*	produces mostly combustion engine-based vehicles	1.51 *negative*	**1.50** ***high risk***
Company D			produces both combustion engine-based and electric vehicles	2.4 *slightly positive*	**1.83** ***medium risk***
Company E			produces electric cars	3.06 *positive*	**2.47** ***medium risk***
Company F	**Diversified Banks**	1.5 *high average sector emission intensity*	engages in indirect oil and gas investments	1.3 *negative*	**1.42** ***high risk***
Company G			provides banking and credit services	2.0 *neutral*	**1.6** ***high risk***
Company H			provides ecological financing and green monetary and investments	3.6 *positive*	**3.26** ***negligible risk***

Carbon Performance Score (CPS)

The Carbon Performance Score (CPS) evaluates the current carbon-related performance of a company as well as a company’s risk management and measures to reduce its carbon intensity in the future.

The Carbon Performance Score is based on a combination of material indicators from the Corporate Rating that measure a company's approach towards managing climate-related transition risks along its entire value chain (supply chain, production, products & services). The set of indicators comprises cross-industry and industry-specific quantitative indicators (e.g., current intensity and trend of greenhouse gas emissions) and qualitative indicators (e.g., disclosures on climate change risks and mitigation strategy, emission reduction targets and action plans, etc.).

For each company, a certain subset of these indicators is applicable depending on its industry, based on our proprietary Corporate Rating industry classification, and its specific business activities (typically 15-35 indicators. The assessment of these indicators is taken from its current Corporate Rating, which applies a rating scale from grade D-/1.0 (Poor Performance) to grade A+/4.0 (Excellent Performance). The relative weighting of these indicators is identical to their relative weights in the Corporate Rating, which are determined based on a materiality assessment for the industry.

The resulting CPS demonstrates how well the company is tackling carbon-related challenges on an absolute rating scale from 1.0 (Poor Performance) to 4.0 (Excellent Performance). The resulting overall CPS grades are broadly classified into four performance categories ranging from Poor Performance to Excellent Performance in a step size of 0.75.

Figure 2: Carbon Performance Score categories

Poor Performance	Medium Performance	Good Performance	Excellent Performance
1.00 - <1.75	1.75 - <2.50	2.50 - <3.25	3.25 - 4.00

Carbon Risk Rating (CRR) Calculation

The Carbon Risk Rating provides an aggregated score indicating a company's overall climate-related transition risk, using the company-specific risk exposure as baseline (Carbon Risk Classification) from which a company can take steps toward better alignment with a low carbon economy (Carbon Performance Score).

The final CRR grade is calculated as the sum of the CRC and CPS (scaled):

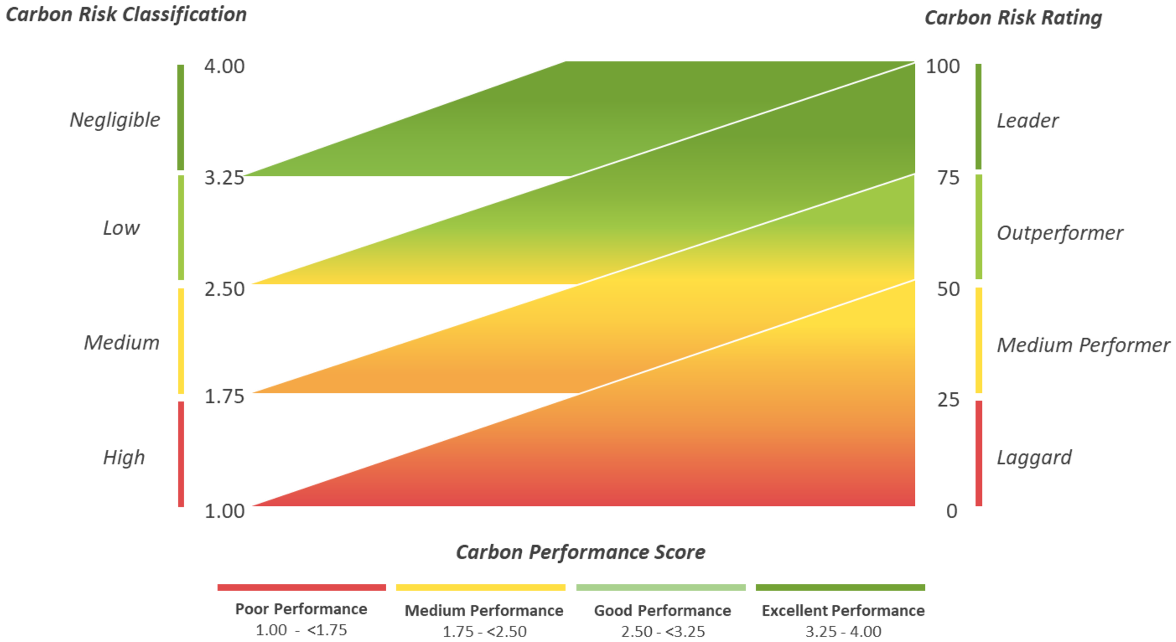
$$CRR_{\text{scale 1–4}} = CRC + f * (CPS - 1)\text{ , where } f = 0.5$$

resulting in a final score (scale from 0-100):

$$CRR = (CRR_{scale\ 1\text{–}4} - 1) * 100/3$$

The scaling factor f is chosen such that companies with the highest risk levels (i.e., CRC=1) can achieve a maximum CRR=50 (i.e., the lower end of the "outperformer" category) as a significant amount of risk remains that cannot be further mitigated, unless the company shifts its product portfolio away from climate-obstructing products and services. Starting from CRC=2.5, companies can achieve a CRR=100 if the CPS is sufficiently high.

Figure 3: Scheme for the Carbon Risk Rating, calculated from a baseline risk classification, illustrating the possible outcomes for the Carbon Risk Rating for the whole range of Carbon Performance Scores (upper end of each triangle is the best possible performance score, lower end is the worst possible performance score)



Rating Outputs and Signals

Carbon Risk Rating (CRR)

The Carbon Risk Rating assesses, on an absolute scale of 0 (very poor performance) to 100 (excellent performance), how a company deals with industry-specific climate-related transition risks both in its own operations as well as in the supply chain. It allows for the categorization of companies into four groups: Climate Laggards, Climate Medium Performers, Climate Outperformers, and Climate Leaders.

Figure 4: Carbon Risk Rating categories

Climate Laggard	Climate Medium Performer	Climate Outperformer	Climate Leader
0 - 24	25 - 49	50 - 74	75 - 100

Carbon Risk Classification Categories (CRC)

The Carbon Risk Classification (CRC) has four risk categories which a company can fall in, namely High Risk, Medium Risk, Low Risk, and Negligible Risk with a step size of 0.75 assessed on an absolute scale of 1.00 (High Risk) to 4.00 (Negligible Risk). A higher value indicates lower risk which means a particular company has a lower baseline risk exposure to climate-related transition risks.

Figure 5: Carbon Risk Classification categories

High Risk	Medium Risk	Low Risk	Negligible Risk
1.00 - 1.74	1.75 - 2.49	2.50 - 3.24	3.25 - 4.00

Research Process

Data Collection

The collection and analysis of data leveraged by the Carbon Risk Rating is exclusively conducted in-house by trained and specialized analysts who adhere to comprehensive evaluation guidelines for assessments. The Carbon Risk Rating is largely derived from ISS STOXX Climate Solutions, the Corporate Rating, and the SDG Solutions Assessment.

Sources of Information

The following sources of information are leveraged by the Carbon Risk Rating. Some of the sources of data considered for the assessments may contain information including sustainability statements required under the EU Directive 2013/34/EU or information required under Regulation (EU) 2019/2088:

- The emission-based sector classification is a proprietary classification where the assigned qualitative risk value is informed by the average sector emissions leveraged from ISS STOXX Climate Solutions data. For the sector-based emissions data, the research team collects publicly available self-reported greenhouse gas emissions data. Common sources include annual reports, corporate sustainability reports, CDP responses, investor relations publications, and other company communication and manually researched data. As new data sources are reported, these are fed into internal databases by analysts. Where companies do not report emissions data, the sector-based emissions data is estimated using a proprietary methodology.

- The main sources consulted for the SDG Solutions Assessment are a company's most recent annual report and segment reporting. Further relevant information on products and services can be derived from the company's website or other documents such as Sustainability Reports or Investor Presentations. These sources are considered to present a realistic picture of a company's product portfolio and its sustainability impacts.

- The data for the indicators from the Corporate Rating (used to calculate the Carbon Performance Score) primarily sourced from issuers' own public disclosure and reporting such as online reporting and corporate filings (Annual reports, Sustainability reports, Integrated reports, including reporting from sustainability statements required under Directive 2013/34/EU), company policies as well as company sustainability disclosures to national authorities or recognized initiatives (e.g., the Science Based Targets initiative), as well as relevant databases.

- Artificial Intelligence (AI) is not used for the data collection of this product and is considered not applicable to the solution.

Use of Estimated Data

The Carbon Risk Rating relies upon estimated data in some areas.

- The Carbon Risk Classification is derived from the emission-based sector classification and the SDG Solutions Assessment. The former is leveraging average sector emission intensity data that is calculated based on both reported and estimated emissions. In the absence of reported data or if self-reported data is lacking quality, a proprietary approach is applied for estimating GHG emissions to provide a holistic, representative emissions dataset. To check the reliability of self-reported emissions data, a quantitative rating has been developed, known as the "Trust Metric" where, based on a proprietary methodology, a confidence level for the data is determined. If the confidence level of the reported data falls below a certain threshold the issuers data is manually reviewed by analysts and then the data is either accepted or replaced by estimated data.

- Across the covered universe, approximately 70% of data used for the emissions-based sector classification is modelled, mainly pertaining to scope 3 emissions. For the SDG Solutions Assessment, approximately 90% of data is estimated. Analysts are provided with clear guidance to ensure that estimated figures are based on reasonable assumptions with medium to high certainty.

- The Carbon Performance Score is derived from Corporate Rating indicators. For those quantitative indicators that are based on percentage assessments, estimations can be made if no (precise) reported data is available. Analysts are provided with clear guidance on how and in what instances estimations may be made. No estimations are made regarding absolute quantitative data (such as consumption data or intensities).

Update Cycles

The assessment outputs of the Carbon Risk Rating are updated on a continuous basis, as most components of the solution receive real-time updates through the respective internal sources from which they are derived:

- Data for the average emissions intensity is updated on an annual basis. Although self-reported emissions data from Corporate Sustainability reports may already be available in Q2, emissions numbers are not updated until Q4 of the following year, following the CDP reporting cycle in November. ISS STOXX therefore recommends the year-end (31 December) as a cut-off date for switching to a full new data set each year.

- As annual updates of Corporate Ratings are conducted on a rolling basis for the individual issuers, the Carbon Risk Rating, Carbon Performance Score and data for the products and services of the SDGA (mitigating climate change) are updated on an annual basis. Integrating the newest annual and/or segment reporting categories provided in the data set on a rolling basis may change the ratings or underlying scores daily.

- The Carbon Risk Rating (CRR) of an issuer is considered valid between the current assessment and the next scheduled or ad hoc update.

Limitations

ISS STOXX's Carbon Risk Rating's methodology and data may be subject to certain limitations both inherently and due to limitations pertaining to the underlying datasets. Further information on limitations of the underlying datasets can be found in the respective methodology disclosures. The below summarizes such limitations as well as the action taken to address these:

Limitations in Availability or Consistency of Data Sources

- The Carbon Risk Rating is primarily based on publicly disclosed information collected through the ISS STOXX datasets such as the Corporate Rating and the SDG Solutions Assessment. As such, issuers often disclose information using different formats, definitions, and levels of detail. This lack of standardization in the breadth and depth of disclosures poses a certain risk of interpretation errors and requires additional effort to vet data collection and assessment. Data collection manuals guide analysts for these datasets in capturing data in an as consistent manner as possible.

Limitations in the Completeness, Timeliness, and Accuracy of Information

- Data collection for the aforementioned ISS STOXX datasets is inherently constrained by the quality, completeness, and accessibility of public sources. Public disclosures can be outdated, delayed, selectively detailed, spread across multiple documents, or released at different times, potentially leading to discrepancies in data collection.

- Additionally, many companies may disclose sustainability-related information at around the same time in a year. This may pose challenges in terms of timely data collection and processing. Several measures are applied within the aforementioned datasets to increase efficiency of data collection and processing, while ensuring a high level of data quality, such as specialization of data collection teams, standardization of processes and quality checks.

Limitations in the use of Assumptions, Proxy Reference Points, and Data Estimation

- As described in Use of Estimated Data, assessments in the underlying datasets may rely on estimations based on robust evidence in certain situations. While estimation rules have been defined to ensure reproducibility of assessments, estimations are inherently subject to a certain level of uncertainty. In addition to standardization of rules on how analysts arrive at estimations, ISS STOXX offers companies the opportunity to review and verify estimated data as part of company outreach processes of the Corporate Rating.

Quality Assurance

ISS STOXX has established a quality management system featuring the following quality controls for the Carbon Risk Rating:

- The Carbon Risk Rating is based on a consistent and rigorous rating methodology designed to yield scores across companies and industries for the carbon risk classification (CRC) and carbon performance score (CPS), as well as scores across peer-to-peer companies within the same industry.

- The Carbon Risk Rating sources the majority of the information from the Corporate Ratings and SDG Solutions Assessment methodology where scoring approaches are built into proprietary software utilized by the analysts and designed in a way to ensure objectivity, consistency, and comparability of assessments.

- A dedicated global Methodology team oversees the consistent application of the methodology. Additionally, the team initiates and coordinates methodological developments in cooperation with the climate team and sustainability topic specialists who keep abreast of the continually evolving international sustainability trends in their fields of expertise.

- The Methodology Review Board, consisting of experienced methodology and research leaders, has been established with the goal of having a robust and consistent methodology development process and structure and to guide and vet the methodology development strategy and process.

Country Carbon Risk Rating

In addition to corporate entities, the Carbon Risk Rating is also available for countries covered by the Sovereign Rating Universe. The Country Carbon Risk Rating (CCRR) evaluates the effectiveness of a country's government in implementing policies aimed at reducing greenhouse gas emissions by state, corporate, and private actors, and in adapting to a changed climate by reducing its vulnerability to climate risks.

Assessment and Scoring Approach

The Country Carbon Risk Rating is based on two complementary elements:

- **Country Carbon Performance Score (CCPS):** a metric for the current carbon-related performance of a country. The score assesses a country's effort in implementing a climate policy framework on the national and international level, as well as country-wide greenhouse gas emission levels and their alignment with national and international reduction targets.

- **Country Carbon Risk Classification (CCRC):** a metric to assess a country's vulnerability and its readiness to adapt to a changing climate.

The Country Carbon Risk Rating is calculated as weighted sum of the country's Carbon Performance Score and its Carbon Risk Classification:

$$\mathrm{CCRR} = 0.9 * \mathrm{CCPS} + 0.1 * \mathrm{CCRC}$$

Depending on a client's thematic focus, the two scores can also function as standalone ratings, or their relative weights can be adapted.

Research Process

Sources of Information: The Country Carbon Risk Rating leverages climate-related data collected and assessed as part of the Sovereign Rating. Information used in the Sovereign Rating is sourced from governmental and international institutions, reputable news sources, and recognized international or local non-governmental organizations. Climate-related sources used in the indicators informing the Country Carbon Performance Score and Country Carbon Risk Classification include Germanwatch e.V., Climate Watch, UNFCCC, United Nations Treaty Collection, and the International Energy Agency (IEA).

Update Cycle: Sovereign Ratings are updated continuously when new data becomes available in a staggered manner. In addition, every rating is reviewed on an annual basis.

Appendix

Appendix A: Relevant Supporting Models and Key Rating Assumptions

Models

- **Carbon Risk Rating aggregation and scoring model**: The rating is built from a company-specific baseline risk exposure classification and a performance component assessing mitigation of transition risks and opportunities.

- **Carbon Risk Classification (CRC) model**: CRC estimates exposure to climate-related transition risks using a proprietary (i) emission-based sector classification and (ii) SDGA "Mitigating Climate Change" product portfolio assessment.

- **Carbon Performance Score (CPS) model**: CPS evaluates current carbon performance and risk management measures using material Corporate Rating indicators across the value chain.

- **Emissions database modelling**: Models emissions for issuers that do not disclose emissions and for issuers with low trust metric (per internal analysis)

- **Country Carbon Risk Rating aggregation and scoring model**: Provides a country-level rating using two components (CCPS and CCRC) combined in a weighted sum (0.9 and 0.1).

Assumptions

- **Baseline-plus-mitigation construct**: Company-specific exposure (CRC) is treated as a baseline from which performance (CPS) can improve alignment with a low carbon economy.

- **CRC assumes a company's value-chain emissions intensity can be proxied by sector intensity + product portfolio impact**: Exposure estimation relies on combining sector value-chain emissions intensity (Scopes 1–3) with SDGA product portfolio assessment.

- **Linear weighting assumption between sector emission intensity and SDGA Mitigating Climate Change Objective**: The CRC and the weight of the SDGA Mitigating Climate Change objective increases linearly with its distance from the emission-based sector classification.

- **Scaling factor fixed at f=0.5**: The CRR calculation assumes a constant f=0.5 scaling of CPS impact on CRR.

Appendix B: Version Control

Name of Methodology: Carbon Risk Rating

VERSION	DATE	DETAILS
1.0	July 2026	Publication of the Carbon Risk Rating Methodology and Research Process document Inclusion of the Public Disclosure on the Methodology, Models, and Key Rating Assumptions Used in ESG Rating Activities (as defined by the Regulation (EU) 2024/3005)

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