Bloomberg ESG Scores

Overview & FAQ

Bloomberg

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What Do Bloomberg ESG Scores Measure?

Bloomberg ESG scores measure a company’s management of financially material ESG issues.

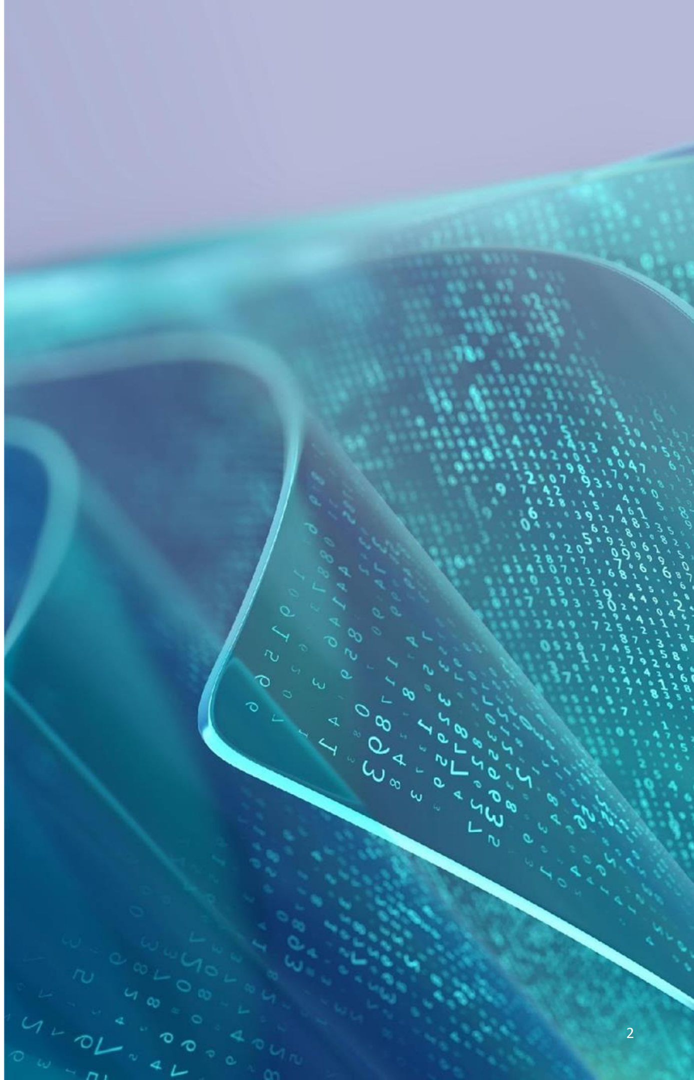
Financial materiality is defined as the issues that can have a negative or positive impact on a company’s financial performance, such as revenue streams, operating costs, cost of capital, asset value and liabilities.

Bloomberg identifies financially material issues based on proprietary research, which is shared transparently and based on an assessment of probability, magnitude and timing of the impact.

Bloomberg scores measure best-in-class performance within peer groups. The scores consider disclosure of quantitative data as a dimension of performance.

Each indicator is scored using a quantitative methodology, taking into account normalization, polarity and the type of a field.

Scores range between 0-10, with higher scores indicating a better management of material issues.



What Makes Bloomberg ESG Scores Different?

Materiality Based

The scores measure a company's management of financially material industry-specific environmental and social (ES) issues and opportunities, as well as governance (G) policies and practices with adjustments for country-specific rules and regulations.

Quantitative and Timely

The scores are based on publicly available, company-disclosed data, and do not rely on estimates or an analyst's opinion. As a result, the scores can be updated in a timely manner as companies release new data throughout the year. Scores also consider disclosure of quantitative data as a dimension of performance.

Transparent

The methodology and underlying data are completely transparent. Users can view and analyze all data driving each score as well as additional features such as weights and percentiles.

Integration and Customization

The scores are integrated into the Bloomberg Terminal and available through Bloomberg Data License. Input data as well as score model parameters such as weights are available for customized analysis and score construction.

Bloomberg ESG Scores Use Cases

ESG Integration

- Screening for performance on material ESG issues
- In-depth research and in-house scores creation
- Portfolio and index construction

Engagement & Voting

- Company engagement on ESG performance and disclosure, shareholder proposals, resolutions and voting decisions

Regulatory Obligations & Reporting

- Sustainable investment definition
- Assessment of sustainability preferences

Fund Selection

- Comparison of fund ESG performance

Scoring Process

Research

Research is conducted for issue selection and weighting, utilizing disclosure standards such as SASB/ISSB, industry-specific frameworks, country-specific governance codes and company materiality analyses to identify important concepts, metrics, and their respective financial materiality.

Data Collection & Quality Assurance

Data is collected for the indicators identified. Scored tickers undergo multiple levels of quality checks including pre-publish statistical and heuristic checks and post-publish data reviews.

Scoring

Issue priority assigned. Scoring model decisions made based on disclosure factor, fit/quality and other attributes of indicators and issues. Parameters and preliminary scores produced and prepared for validation.

Validation

Scores are validated across input data, model and parameter components, and outputs. Model validation occurs before new industries are released and for all industries during annual methodology and parameter reviews. Input/output validation occurs monthly as new data is reported and scored.

Publication & Documentation

Scores are updated on the Terminal and the universe of BECS peer groups is added on ICS <GO>. Methodology documents for any newly scored industries published on BESG <GO>.

Peer Group Selection

Bloomberg analysts define scoring peer groups of companies sharing similar business models and revenue streams and facing similar ESG risks and opportunities.

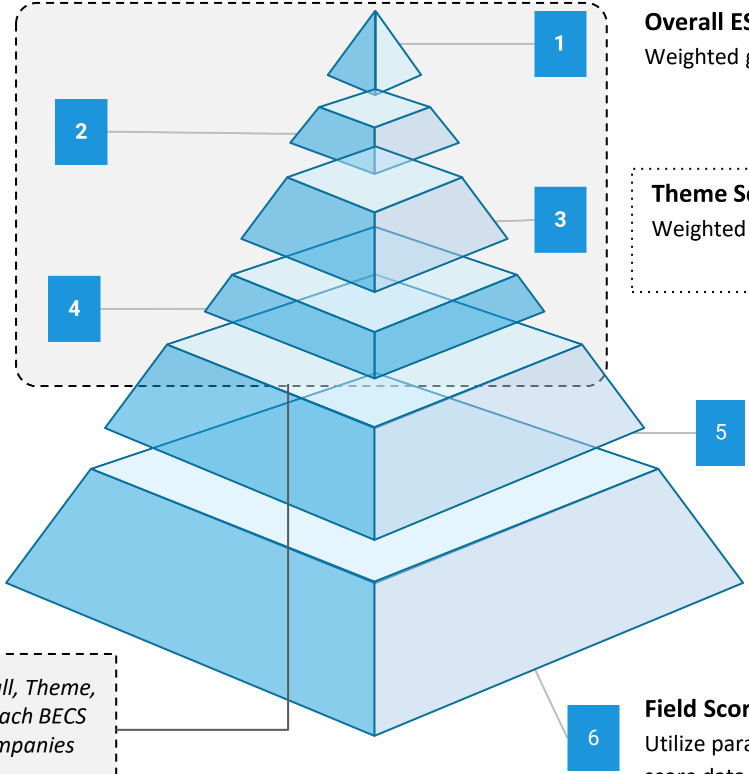
These groups comprise the Bloomberg Environmental, Social and Governance Industry Classification System (“BECS”), which leverages Bloomberg Industry Classification System (“BICS”) nodes to construct a classification that is purpose-built for ESG scoring and analysis. Bloomberg ESG scores are constructed at the BECS Level 3 - Peer Group level.

Example of BICS-BECS peer group mapping

BECS Level 1 Sector	BECS Level 2 Industry	BECS Level 3 Peer Group	BICS Level	BICS Classification Name(s)
Consumer Staples	Agriculture	Agricultural Producers & Wholesalers	4	Agricultural Products Wholesalers Agricultural Producers - excluding Aquaculture Fishing, Animal Production & Process (BICS Level 5)
Consumer Staples	Food & Beverages	Packaged Food	4	Packaged Food
Consumer Staples	Household Products	Home Products & Personal Care Products	4	Personal Care Products Household Products
Consumer Staples	Food & Beverages	Non-Alcoholic Beverages	4	Non-Alcoholic Beverages
Consumer Staples	Food & Beverages	Alcoholic Beverages	4	Alcoholic Beverages

Full BICS-BECS mapping document available on **BESG <GO>**

ESG Scores Structure



Overall ESG Score (0-10, 10 is best)
Weighted generalized mean* of Pillar scores

Pillar Scores (0-10, 10 is best)
Weighted generalized mean* of Issue (ES) or Theme (G) scores

Theme Scores (G only; 0-10, 10 is best)
Weighted generalized mean* of Issue scores

Issue Scores (0-10, 10 is best)
Represent the Issue Performance score scaled and shifted into a range determined by the Disclosure Factor
Consists of:
Issue Performance Score (0-10, 10 is best) - weighted generalized mean* of Sub-Issue scores
Disclosure Factor (0-1, 1 is best) - measure of quantitative field disclosure; determines Issue score range

Sub-Issue Scores (0-10, 10 is best)
Aggregate Field scores by a simple mean, weighted generalized mean* or custom aggregation

Field Scores (0-10, 10 is best)
Utilize parametric scoring models and field attributes to score data fields

Percentiles (0-100, 100 is best) are available for Overall, Theme, Pillar and Issue scores. Percentiles are computed for each BECS Level 3 and allow for comparison across scores for companies in different peer groups

See* ***FAQ* *section for an explanation of weighted generalized or power/p-mean*

Overall ESG Score Aggregation

The Overall ESG score evaluates a company's aggregated ESG performance, across E, S and G Pillars. The score is based on Bloomberg's view of ESG financial materiality.

For each peer group, Pillar weights are determined by Bloomberg Intelligence fundamental research. The relative importance—from the point of view of financial materiality—of each of the three Pillars is specified by assigning them a "rank" on a 1-5 scale, with 1 reflecting the highest importance. G is ranked 3 for all peer groups, as company and region-specific factors can be more significant drivers of governance than industry factors. Rankings are translated into percentage weights. Aggregation of Pillars into the ESG score uses a weighted generalized or power/p-mean.

Examples of pillar weighting by peer group

		Importance (1 = highest)			Weight		
Sector	Peer Group	E	S	G	E	S	G
Communications	Advertising and Media Content	4	1	3	20.0%	50.0%	30.0%
Consumer Discretionary	Automobiles	1	3	3	45.5%	27.3%	27.3%
Financials	Diversified Banks	3	1	3	27.3%	45.5%	27.3%
Materials	Iron & Base Metals	1	2	3	41.7%	33.3%	25.0%
Oil & Gas	Exploration & Production	1	3	3	45.5%	27.3%	27.3%

Full Pillar weight mapping & calculation available on **BESG <GO>**

ES Material Issue Identification, Priorities and Weights

Heat Map of Environmental Issues and Priorities - Utilities

	Integrated Utilities & Power Generation	Electric Transmission & Distribution	Gas Utilities
Air Quality	3		
Climate Exposure	1	1	
Ecological Impact	7		2
GHG Emissions Management	1	1	1
Sustainable Product	3	3	3
Waste Management	3		
Water Management	6		

Material Environmental and Social ("ES") risks and opportunities for each peer group are selected based on Bloomberg Intelligence research, which includes top-down review of global standards such as SASB/ISSB and other industry-specific guidelines. The research also includes bottom-up review of corporate ESG disclosure and an assessment of the suitability of data fields for describing and quantifying sustainability issues.

Bloomberg Intelligence analysts then prioritize and rank identified risks and opportunities associated with material sustainability themes and embodied in ESG score Issues. Rankings are provided by peer group, with rationales for each Issue's priority.

Issue priorities for each peer group are determined through prioritization of the Issues within each Pillar, based on a three-part assessment of probability, magnitude and timing of impact.

Issue priorities are translated into weights. Issue and Sub-Issue weights can be adjusted to account for cases in which they contain only binary/policy fields.

GHG Emissions Management Issue Priorities - Utilities

	Integrated Utilities and Power Generation	Electric Transmission & Distribution	Gas Utilities
Probability	High	High	Medium
Magnitude	High	High	High
Timing	Short	Short	Short
Issue Priority	1	1	1

Full ES Industry Methodology docs available on **BESG <GO>**

G Material Theme and Issue Identification, Priorities and Weights

Similar to ES scores, material Governance ("G") issues are selected based on top-down and bottom-up research. In addition to a review of global frameworks, for G scores this research includes analysis of country- and market-specific corporate governance codes and listing rules. Company disclosure is also reviewed to identify material issues. Company- and country-specific factors, such as firm age or local market rules, play a role in determining which Issues are scored.

G score Issues are aggregated into four Themes: Board Composition, Executive Compensation, Shareholder Rights and Audit. The weighting of Issues within each Theme is determined by fundamental research. Issue and Sub-Issue weights can be adjusted to account for cases in which they contain only binary/policy fields.

The weighting of Themes into the G Pillar score is also determined based on fundamental research, and can be adjusted to account for the impact of differences between different ownership structures.

Governance Score	BI Theme Priority Rank	Theme Weight
Board Composition	1	35.00%
Executive Compensation	2	24.94%
Shareholder Rights	2	24.94%
Audit	4	15.12%
Total		100%

Inputs to G Theme Priorities			
In-depth analysis of country-specific corporate governance codes, listing rules and other standards	Fundamental research and news analysis to highlight financial impacts related to key governance risks	Review of academic studies related to the identified material issues and their financial impact	Discussions and interviews with Bloomberg Intelligence analysts and other experts

Full G Theme Methodology docs available on **BESG <GO>**

Field Selection and Attributes

The foundation of scoring ESG material issues is selection and development of data fields capturing company-reported information that describes and quantifies those issues. Once fields are selected, field qualifiers or attributes are assigned to inform selection of field scoring techniques and to inform aggregation of fields to higher score levels.

Field Attributes

Field Type

Indicates whether field values are quantitative, binary+ or binary:

- **Quantitative fields** return numerical values
- **Binary+** fields return "Yes" or "No" values with a quantitative element underpinning them (e.g., existence of a net zero target)
- **Binary fields** return either "Yes" or "No" values, indicating whether or not a company has disclosed information on a topic

Activity Metric

Used to normalize ESG performance relative to operating or financial metrics. Some fields (e.g., those that are already normalized, that are categorical or binary, etc) do not have activity metrics

For instance, spending on worker training scales most closely with number of employees. In cases where precise scaling quantities are not available, more universal metrics such as revenues are used

Polarity

Used to reflect whether activities decrease or increase financial, operational, or reputational risks

Positive polarity is assigned where a higher field value means lower risk or higher opportunity and, therefore, a higher score. Negative polarity is assigned where a lower field value means lower risk or higher opportunity and, therefore, a higher score

Used to inform selection of field scoring technique*

Fit/Quality (ES only)

Indicates "fit" for purpose of scoring the intended indicator and "quality" and comparability of disclosure. Used to aggregate Field scores into Sub-Issue scores

- **High (H)**: Metric is a good measure of what is called for in ESG reporting frameworks, and data is comparable
- **Medium (M)**: Metric is either a good measure, or data is comparable, but not both
- **Low (L)**: Metric is not a good measure and data is not comparable, or field is binary

Disclosure Factor

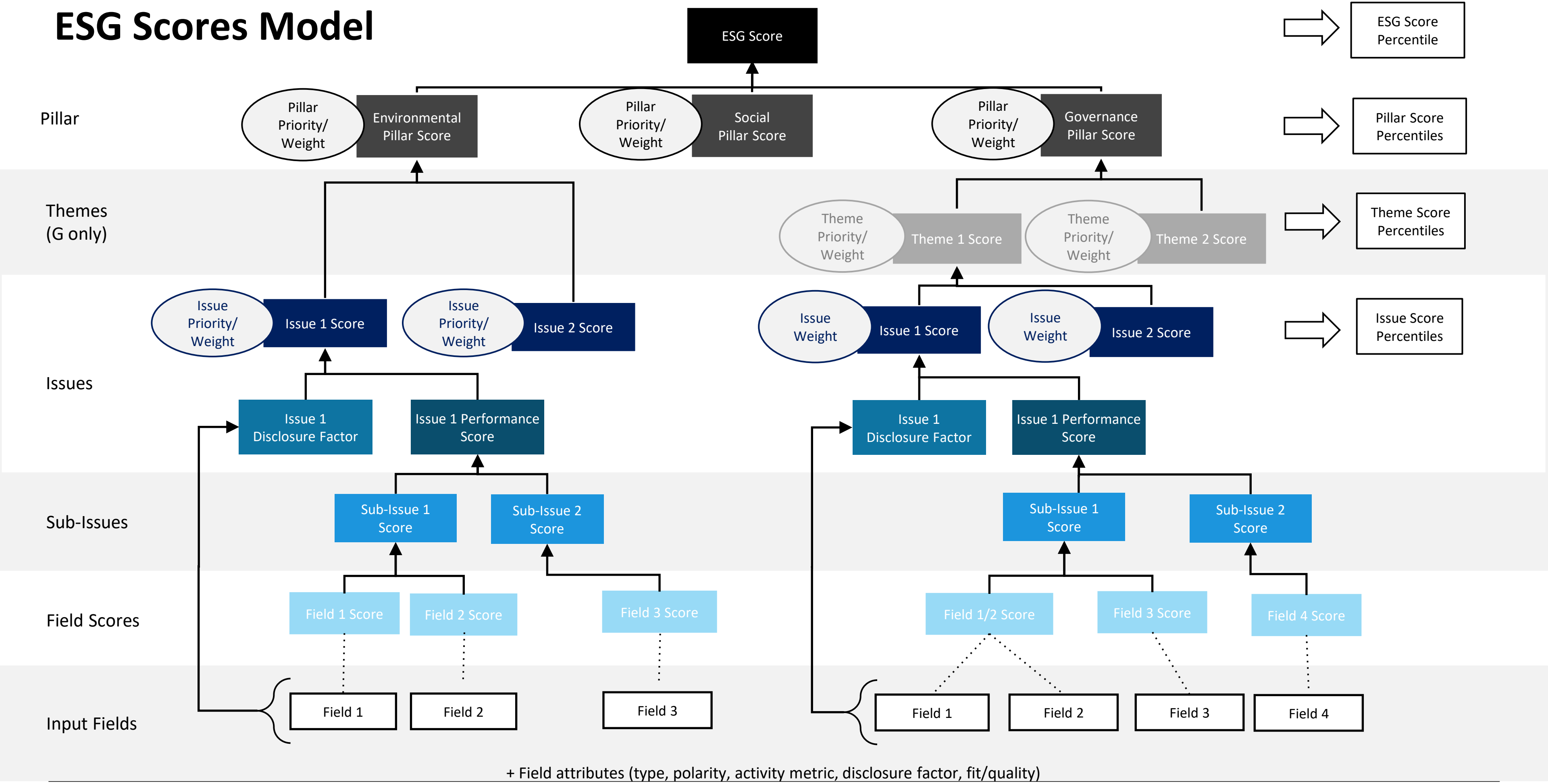
Indicates relative importance of the field from a disclosure perspective and is used to guide the treatment of missing data at the Issue score level

- **DF Rating A**: Field is called for by a multitude of ESG disclosure frameworks and investors
- **DF Rating B**: Field is a proxy for fields called for by a multitude of ESG disclosure frameworks or is called for by only a limited number of frameworks
- **DF Rating C**: Field is not directly disclosed, but derived based on inputs (e.g., amount of carbon in oil & gas reserves)

Used to inform aggregation to higher score levels

See FAQ section and score methodologies on* **BESG <GO> *for discussion of field scoring techniques*

ESG Scores Model



FAQ

1- What do the scores measure?

Bloomberg ESG scores measure a company's management of financially material ESG issues. Financial materiality is defined as the issues that can have a negative or positive impact on a company's financial performance, such as revenue streams, operating costs, cost of capital, asset value and liabilities. Bloomberg identifies "financially material" issues based on proprietary research, which is shared transparently and based on an assessment of probability, magnitude and timing of the impact.

Bloomberg scores measure best-in-class performance within peer groups. The scores consider disclosure of quantitative data as a dimension of performance, expressed using an absolute Disclosure Factor to adjust Issue-level scores.

2- What are the typical intended use cases for the scores?

- Screening for performance on material ESG issues
- In-depth research and in-house scores creation
- Portfolio and index construction
- Engagement strategies and stewardship
- Reporting, alignment with global frameworks for companies and investors
- Regulatory compliance related to disclosure and performance
- Fund selection and comparison of fund ESG performance

FAQ

3- What is the coverage of the scores?

- Approximately 15,000 companies, representing 90% of global market cap across over 100 countries, including a limited number of private companies
- >90% coverage of Bloomberg US and European corporate investment grade bond indices by mapping scores at the issuer level
- 70,000 funds, which are scored using a bottom-up approach aggregating the ESG score percentiles

ESG score company coverage is viewable on the Terminal by referring to the below indices:
BESGCOV Index MEMB <GO>: Tracks total score coverage, i.e., all companies for which ESG scores, current and/or historical, are available
BESGSCO Index MEMB <GO>: Tracks only companies with deep history of scores, in most cases beginning in fiscal year 2015 (~6,000 companies)

Companies in the BESGSCO Index offer score history from fiscal year 2015 and all other companies from 2021, depending on data availability.

4- What are the calculation frequency and periodicity of scores?

Frequency - Bloomberg ESG scores are calculated on a regular basis, to account for and incorporate newly available data as well as any updates to/restatements of previously disclosed information. ESG data is typically reported annually, with reporting timelines varying by company. To account for the rolling nature of ESG disclosure, scores are calculated and published for companies as data becomes available.

Periodicity - “Latest” scores use the most current information available, supplementing the most recent complete fiscal year’s data with any newly disclosed information. The oldest data points used in the calculation of “Latest” scores are inputs sourced from the last fiscal year for which a “Fiscal Year” score has been calculated.

"Fiscal Year" scores are provided for a given company once complete ESG data for a specific fiscal year is published.

FAQ

5- Why and how are BECS peer groups created? Where can I see BECS?

Scoring peer groups are based on Bloomberg Environmental and Social Industry Classification System (BECS), which is a purpose-built classification for the analysis of ESG risks and opportunities. BECS peer groups are comprised of companies that share similar business models, products and services, supply chains, clients and risks, and are therefore exposed to similar material issues.

BECS is built using different Bloomberg Industry Classification System (BICS) nodes and levels in order to create more granular or cross-cutting peer groups. BICS is defined as a group of entities which are perceived by the markets to be peers with similar economic drivers, risks or correlations. BICS classifications often follow company segmented revenue reporting to determine business activities.

Users can view a company's BECS classification on the Terminal at ESG SCORE <GO> and CCB BECS <GO>, and can access full lists of companies in each peer group using ICS BECS <GO>. A BICS-BECS mapping is also available via BESG <GO>.

6- How are the weights of the Pillars determined for the Overall ESG score?

The Overall ESG score is based on an aggregation of E, S and G Pillar scores. For each industry, Pillar weights are determined by Bloomberg Intelligence fundamental research. The relative importance—from the point of view of financial materiality—of each of the three Pillars is specified by assigning them a "rank" on a 1-5 scale, with 1 reflecting the highest importance. G is ranked 3 for all industries, given that company and region-specific factors can be more significant drivers of governance than industry factors. Rankings are then translated into percentage weights. Aggregation of Pillars into the ESG score uses a weighted generalized or power/p-mean. For more information on ESG Overall score weights please refer to BESG <GO>.

FAQ

7- How are the weights of the Issues determined for Pillar E, S and G scores?

For aggregation into E, S and G Pillars, the prioritization of Issues is based on research and analysis of the probability, magnitude and timing of the impact of the Issue. Prioritization follows a rules-based approach, which determines the weight of the Issues when aggregated into Themes - for Governance scores - and E, S and G Pillars.

Issue selection and prioritization is guided by global standards such as the Sustainability Accounting Standards Board (SASB) and International Sustainability Standards Board (ISSB), supplemented by review of disclosure frameworks such as those provided by the Global Reporting Initiative (GRI), CDP, Task Force for Climate-Related Financial Disclosures (TCFD) and industry-specific guidelines. For example, for Real Estate companies, guidelines from organizations such as the European Public Real Estate Association (EPRA), Global ESG Benchmark for Real Assets (GRESB) and National Association of Real Estate Investment Trusts (NAREIT) have been reviewed. Framework and standards review is complemented by Bloomberg in-house research to determine material issues, metrics and their relative importance for scoring performance.

8- Are Issue Priorities sequential?

Issue Priorities are assigned by Bloomberg Intelligence and are evaluated through the lens of a probability, magnitude and timing assessment of the underlying issue and its impact on company financial performance. The Issue with the highest priority will have a ranking of 1. The Issue Priorities are sequential; however more than one Issue can be assigned the same priority. In these cases, Issues with priorities falling below priorities containing multiple Issues will take the next available ranking. For example, in the Homebuilding peer group Climate Exposure and Sustainable Product Issues are both assigned a 1, which means the Ecological Impact Issue can only be assigned a 3.

FAQ

9- Are the scores relative or absolute?

Bloomberg ESG scores measure best-in-class performance within BECS peer groups.

Percentiles (0-100, 100 is best) allow for comparison across scores for companies in different peer groups. Percentiles are available for all Issue, Theme, Pillar and Overall scores.

10- Do scores measure risk exposure as well as management of risk?

Bloomberg ESG scores take into account both current exposure and management performance. Bloomberg assesses the management of risk based purely on publicly reported data and does not engage directly with companies to source information. Each score Issue and Sub-Issue can be composed of metrics reflecting the company’s performance, commitments and targets as well as policies that reflect the company’s management approach towards ESG risks and opportunities.

FAQ

11- How are input data fields scored?

Industry materiality frameworks are built with 100 input indicators on average per peer group. These input fields are scored using different quantitative methodologies depending on factors such as the field type, polarity and the activity metric used for normalization; availability of data and reference points for good performance, such as thresholds determined by industry bodies or research.

For example, emissions data is mostly scored using normalized intensity. Depending on the industry, GHG Emissions can be normalized by Revenue, Total Production or another relevant activity metric to control for the size factor. This field is then scored as a GHG intensity metric relative to the peer group.

A field quantifying Amount of Anti-Competition Fines, for example, may be scored using a model based on categorical ranges. In this case, the field is scored based on the amount of fines (in currency) as a percentage of the company's revenue, i.e. 0% is awarded a score of 10, >0-1% is awarded a 7 and greater than 5% results in a 0 score. These categorial range thresholds reflect levels of performance.

Once a scoring method is selected, a parametric approach is used to score fields. For all field types, parameters are estimated empirically for peer groups, with a few exceptions such as binary fields and fields related to workforce fatalities.

To read more about the parametric approach to scoring and the various quantitative scoring models used, please refer to the ESG Scores Methodology document and Industry Guides, available on BESG <GO>.

FAQ

12- Why and how are we using weighted generalized/power mean for aggregation?

Overall, Pillar, Theme, Issue and some Sub-Issue scores are aggregated using a power-mean (p-mean). Power means are a generalized mean, and are used to reward excellence across the board and to penalize less consistent performance between the various aggregated score levels. The use of power means rewards more balanced performance across material issues, themes and pillars, since we believe for instance that Environmental, Social and Governance scores cannot compensate for one another. Further, a key function of Bloomberg ESG scores is the transparent identification of potential ESG risks; if such risk is hidden by compensatory scoring, users may fail to identify material ESG risks.

For aggregation at all levels, we use weighted shifted p-means with the power p=0.5 and shift s=1. The p-value of 0.5 is chosen as the midpoint of the values that represent an arithmetic mean (p=1) and a geometric mean (p=0). For more information, please refer to the ESG Scores Methodology document available on BESG <GO>.

13- What is the Disclosure Factor?

Bloomberg's ESG scoring methodology integrates a Disclosure Factor (DF) at the Issue Score level in order to account for disclosure of quantitative data as a dimension of ESG performance. As such, DF is used to guide the treatment of missing data and to incentivize increased transparency of information related to material ESG risks and opportunities. The DF determines the range into which an Issue Performance Score will be scaled and shifted, effectively defining the upper and lower bounds of the Issue Score. DF is only applied at the Issue Score level; as such, Sub-Issue and Field scores reflect only disclosed performance.

A company's Disclosure Factor for an Issue is computed as a weighted percentage over all fields within that Issue. Each quantitative and binary+ field in the framework is assigned a DF value based on the field's relevance and importance to reporting frameworks and industry disclosure guidelines; binary fields do not receive a DF value. For more information, please refer to the ESG Scores Methodology document available on BESG <GO>.

FAQ

14- What are the sources of data used in the scores?

Bloomberg ESG scores use publicly available, company-reported ESG data, and do not incorporate estimates or analyst opinion in the calculation or adjustment of scores. Data used in the scores is fully transparent, including to the source document. Data sources include company filings such as annual reports, 10-Ks, integrated reports, corporate responsibility reports, disclosure against ESG reporting frameworks and standards such as SASB index tables, proxy voting and other corporate governance documents, and other ESG releases. While the reporting cycle for ESG data is typically annual, data is reviewed, acquired and incorporated into scores on a rolling basis, to account for company-specific variation in reporting timelines.

While Bloomberg does not generally proactively reach out to companies to discuss the scores, resources are available through which companies can request detailed reports and verification forms. Bloomberg analysts may directly contact companies in case further clarification is required to confirm reported data (i.e., in the case of significant outliers, lack of reported units of measurement, etc).

15- What are the data governance and validation processes for the scores?

Prior to publication, data is standardized to ensure comparability across companies, industries, regions, and time series. Our data processing tools and workflows support over 5,000 statistical pre-publishing checks and business rules. When data points do not conform with pre-set standards, they are routed through multiple layers of validation escalation, including review by senior analysts and subject matter experts when appropriate. Data is checked for consistency, completeness, scaling, year-on-year/within-year variance, interrelatedness/interdependencies, and other screens. After publishing data, we run sophisticated and automated logic checks at varying frequencies.

Scores are also subject to rules-based and statistical validation between calculation and publication to clients. Score validation rules are written and regularly reconfirmed by a team of quantitative analysts to ensure thresholds are well tailored to the current nature of the data. Score validation is executed via a data governance platform offering full traceability and auditability of input data, rules and validation/remediation outcome.