WaVeritas

ESG Rating Methodology

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1 Summary

The Corporate Environmental, Social and Governance (ESG) Rating represents a quantitative, industry-specific view on a company's ESG performance based on selected and weighted criteria.

The Country ESG Rating represents a comparative, quantitative view of a nation's stand towards selected and weighted Macro indicators.

The rating methodology was developed between 2011 – 2013 with the goal to find new and adaptable ways to integrate relevant, specific ESG criteria in investment decision making processes. Today, the ESG rating is used as quantitative, standardized and benchmarked house view on ESG performance of corporations and nations.

The ESG Rating can be used to monitor ESG pperformance of companies/nations or in aggregation, investment funds, based on a standardized, best-in class methodology. The WaVeritas Rating is particularly designed to monitor ESG Risks and Opportunities in a standardized and efficient way. An ESG Rating can serve as proxy indicator, reference, compliance and monitoring tool.

2 ESG Company Rating

2.1 Overview

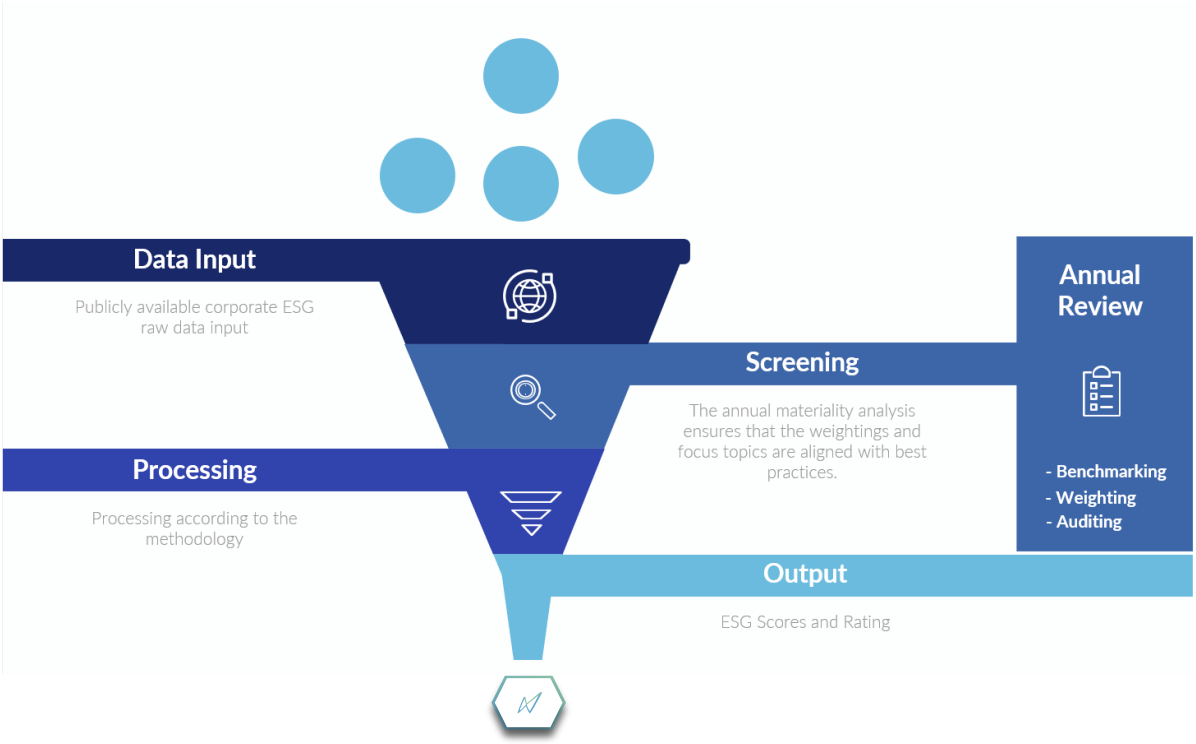
The WaVeritas Corporate ESG Rating consists of 11 sectors and 52 industries. The quantitative rating is based on general and industry-specific ESG metrics that are scored and weighted according to an annual relevance-check (annual review).

Each industry has a unique set of criteria and weighting to reflect industry-specific idiosyncrasies. The rating framework was designed with particular attention to financial materiality and ESG risk and opportunity monitoring.

The ESG Company Scores are presented as a percentile scores to account industry peer performance (Best-in class). The percentile scores are categorized in 5 equal grades (A-E, each 20%) for reference purposes.

2.2 ESG Rating Process

2.2.1 Process Overview



2.2.2 Data input

The WaVeritas research team processes publicly available ESG datapoints (metrics) from official corporate disclosures:

- Annual Reports
- Form 10-K
- Investor Presentations
- Homepage

2.2.3 Annual Review & Materiality Assessment

Once every year, an materiality and benchmarking assessment is performed.

The materiality assessment aims to review the weights of the dimensions, indicators and metrics. The weights on each level shall reflect the potential financial impact or materiality. For example, the Environmental Dimension weights less for

firms in the financial industry, compared to firms in the energy space. This is because, corporate environmental performance affects the current and future standing an energy company more than a company in the financial industry, where Governance and Social aspects deemed comparably more crucial.

The materiality assessment is at the same time also a chance to benchmark the process and appraisal. The research teams looks for recent publicly available information about financial materiality of ESG indicators on industry level. In this regard, WaVeritas considers publicly available information from renowned frameworks such as PRI, GRI and SASB but also others. In its research process information from corporate engagements, sustainability-related industry associations, research reports, news agencies and third-party data providers are considered too.

At this point, WaVeritas also assesses potential addition of new indicators or removal of such as well as potential additional information sources. The internal process documents and guidelines are updated as well during this the annual review.

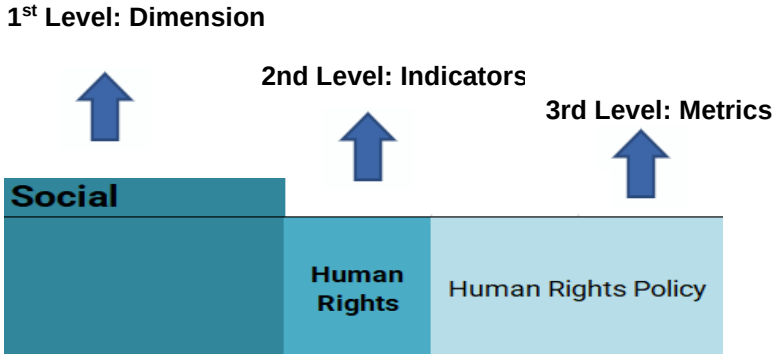
A major update of ESG metric information is performed at the end of the annual review process to adjust for the latest information.

2.2.4 Processing

The ESG raw datapoint is processed according to the materiality assessment in a standardized way.

Setup

The rating frame is built on 3 levels, each carrying a particular weight according to the materiality assessment.



- **1st Level: Dimensions**

  The 3 dimensions characterize the cornerstones of the Rating "Social", "Environment" and "Governance".

- **2nd Level: Indicators**

  The indicator represents material ESG issues for a particular industry/company. This indicator may consist of several performance metrics. Certain indicators are industry-specific, while others are used in all industries. Examples of such indicators can be found in the following list:

- **3rd Level: Metrics**

  The metric represents a quantitative or qualitative performance datapoint such as for example, annual greenhouse gas emission (quantitative) or "resource reduction policy" (qualitative). The metrics are always based on corporate disclosures and represent the input information.

2.2.5 Enhanced ESG risk and opportunity view

In addition to the materiality assessment and in order to account and reflect ESG risks and opportunities more holistically, WaVeritas integrates a product impact and disclosure score as a next step in the process.

Product Impact

In our view, certain product groups are more prone to ESG related risk and as such to potential financial risks (revenues due to changing consumer behaviour, potential involvement in controversies), while others are better aligned with long-term trends, operate more efficient or are socially more compatible.

We can not reflect single product-specific characteristics of single companies, within the frame of the process. However, we take into account substantial evidence about prevailing ESG risks and opportunities of certain product groups. Those product groups present elevated risks for the environment or society at large.

For this assessment WaVeritas considers the percentage of annual revenue contributions from a particular product group. As example, revenues from renewable energy production are seen as favorable, given the capacity to generate energy in an eco-efficient way. On the other side revenues from coal (mining, energy generation) are seen as a potential ESG risk, given the comparable high CO2 emissions associated with coal-based energy production and the potential economic implications for the firm.

3.3 Disclosures

The disclosure score aims to counter the information bias and reward those companies that disclose comparably much data. The score is a mathematical overlay that does not have a great impact on the total score. ESG data availability present a challenge in general. Only published ESG data metrics can be processed and compared and thus the effect of missing datapoint may be significant in some cases.

In general, the impact of the “product impact” and “disclosure” score does not hinder the best-in class comparability within industries. Moreover, those scores are designed to give an additional edge on the risk and opportunity management side for the viewer.

2.2.6 ESG Scores output

The final absolute ESG Score is transformed into a percentile score in order to facilitate the industry-view and best-in-class comparison. The percentile scores are then categorized into 5 pillars: A-E or 1-5 butterflies for better reference.

WaVeritas also calculates, based on the same methodology, additional ESG scores, such as for example the dimension percentile scores.

The following tables show in detail how to interpret the scores and figures:

ESG Percentile Rating Score	ESG Rating
80 – 100	A
60 – 79	B
40 – 59	C
20 – 39	D
0 – 19	E

Functional interpretation

	ESG Company and E,S,G Dimension Percentile Score	ESG Rating	Butterflies
Example	89%	A	
Mode	percentile score	letter	figure or number
Interpretation	The company performed better than 89% of the industry peers overall or in a particular dimension in case of dimension scores.	ESG Rating of a company based on the percentile rating -> >80% = A	Rating expressed in number of butterflies -> A = 5 butterflies

Interpretation in the context of sustainability

A	The company demonstrates superior ESG performance compared to industry peers. The company reports transparently and manages risk/opportunities actively.
B	Above industry-average ESG performance. Relevant policies are in place and efforts to align with potential opportunities have been made. Improvement needed.
C	An average score shows that the company did not report on relevant figures, performance metrics are improvable, and more effort is need to manage ESG risks successfully.
D	The D rating implies elevated ESG risk. The company does not demonstrate adequate measures to manage material ESG risks and is though vulnerable to negative impacts.
E	The lowest rating reveals high ESG risk. The company is not transparent with its practices and lacks basic polices and management processes to tackle material challenges.

3 ESG country rating

The country rating was developed to provide clients a standardized view on a country's ESG performance based on selected macro indicators. The quantitative rating is based on a proprietary methodology which equally weights the three dimensions "Environment", "Social", "Governance". The same methodology applies to all nations.

The rating considers 194 nations and the following of 33 indicators:

3.1 Indicators

Environment

1. Access to electricity (% of population)
2. Adjusted savings: natural resources depletion (% of GNI)
3. Adjusted savings: net forest depletion (% of GNI)
4. Mammal species, threatened
5. People using safely managed drinking water services (% of population)
6. PM2.5 air pollution, mean annual exposure (micrograms per cubic meter)
7. Terrestrial and marine protected areas (% of total territorial area)

Governance

8. Control of Corruption: Estimate
9. Ease of doing business index (1=most business-friendly regulations)
10. GDP growth (annual %)
11. Government Effectiveness: Estimate
12. Regulatory Quality: Estimate
13. Research and development expenditure (% of GDP)
14. Rule of Law: Estimate
15. Scientific and technical journal articles
16. Strength of legal rights index (0=weak to 12=strong)
17. Voice and Accountability: Estimate
18. Income share held by lowest 20%

Social

19. Individuals using the Internet (% of population)
20. Labor force participation rate, total (% of total population ages 15-64) (modeled ILO estimate)
21. Life expectancy at birth, total (years)
22. Literacy rate, adult total (% of people ages 15 and above)
23. Mortality rate, under-5 (per 1,000 live births)
24. Net migration
25. People using safely managed sanitation services (% of population)
26. Poverty headcount ratio at national poverty lines (% of population)
27. Prevalence of undernourishment (% of population)
28. Proportion of seats held by women in national parliaments (%)
29. Unemployment, total (% of total labor force) (modeled ILO estimate)
30. Patent applications, residents
31. Political Stability and Absence of Violence/Terrorism: Estimate
32. Fertility rate, total (births per woman)
33. Government expenditure on education, total (% of government expenditure)

3.2 Output

The final absolute ESG Score is transformed into a percentile score in order to facilitate comparison. The percentile scores are then categorized into 5 pillars: A-E or 1-5 butterflies for better reference.

3.3 Source

World Bank ESG Data: *https://databank.worldbank.org/source/environment-social-and-governance-(esg)-data*

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About us

WaVeritas provides ESG research services to asset managers, family offices and businesses.

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