SUSTAINALYTICS' ESG RISK RATINGS

FAQ

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General Questions

1. Why do the ESG Risk Ratings focus on financial materiality?

An increasing number of studies are suggesting that companies that manage material ESG issues well may outperform the market, ceteris paribus. In other words, strong management of material ESG issues may bring higher risk-adjusted returns for investors. The idea that sustainability may also be linked to greater long-term business value if management is focused on issues that truly matter to a business is powerful. In short, many clients want an ESG rating that is more focused on materiality and delivers clear signals regarding excess return potentials.

2. What makes the ESG Risk Ratings unique?

The ESG Risk Rating has a very clear risk signal - it says exactly what it intends to measure. Exposure is part of our rating. The selection of material ESG issues has been done rigorously based on data and expert opinion. The rating is very granular in nature, since issues and indicators have been discussed and determined at the subindustry level. The rating is company specific, i.e. the selection of issues and the weighting of indicators speaks to a company's individual situation. The rating allows a direct comparison and benchmarking of companies across sectoral boundaries. Our rating is "absolute" rather than relative (e.g. you can compare a bank with a mining company). It also allows for qualitative adjustments of important parameters, reflecting the complexities individual companies face. We incorporate "black swan" issues, and we introduce the concept of unmanageable risk. We believe that the combination of the features of the rating together with the high quality of the underlying research provided by our sector experts positions us very well in a competitive context. We believe our rating is rigorous, transparent, and sophisticated.

3. What are the key benefits of the ESG Risk Ratings?

- **Financial materiality framework**: assessment focuses on ESG issues that present the most material risks to a company's enterprise value.
- **Two-dimensional approach**: The exposure lens informs investors what material ESG risks the company faces and the management lens assesses how well the company is managing these risks.
- **Multiple exposure factors**: The level of exposure is based on factors such as the business model, geography, financial strength and incident history.
- **Comparability**: Absolute ratings enable comparability across industries and companies at both the overall ESG and issue-specific risks levels
- **Solid Foundation**: Corporate governance ratings are fully integrated into the ESG Risk Ratings as the baseline for all companies.
- **Clear Analysis**: Enhanced Analyst Views and Issue Narratives offer insights into specific areas of corporate risk.
- **Controversy Research**: Discounting effect on management scores increases with event severity, giving controversies a higher impact on the rating.

4. How many companies does Sustainalytics cover with ESG Risk Ratings?

Sustainalytics' ESG Risk Ratings universe covers 9,000 public and private companies and will expand to over 10,000 companies in early 2019.

5. What value can the ESG Risk Ratings bring to the investment decision-making process?

The ESG Risk Rating has been developed with the objective to maximize its usefulness in investment decision processes. With its clear focus on financial materiality, the ESG Rating can be directly integrated into company valuation models or investment decision making. Its granularity and specificity allow users to distinguish sharply between companies, even going beyond sector boundaries. The modular and issue-based structure maximizes the flexibility with which investors can use the rating. It has been designed to form the basis for structured investment processes, such as smart beta approaches, and can also be perfectly incorporated in valuation models, such as DCFs. Due to its focus on financial risk, the rating speaks to equity investors and fixed income investors alike.

Research Framework

6. What was Sustainalytics' process for determining material ESG issues and exposure levels per sub-industry and will these be reviewed to capture emerging ESG issues?

The selection and evaluation of ESG issues at the sub-industry level was done based on a comprehensive consultation process with our industry experts. It was a guided and moderated process driven by structured data inputs and a standardized template of questions that needed to be addressed. These included questions regarding the expected transmission channels of ESG impacts (e.g. via costs or revenues), the expected time horizon of ESG impacts, and their likelihood. The data points that were provided to analysts to make their judgement calls included Sustainalytics' incidents/events data, aggregated performance data as reported by companies, and materiality assessments of companies coming from their sustainability/CSR reports. Analysts also consulted external data and experts, such as SASB and carbon data. The results of the consultation process went through several rounds of vertical and horizontal consistency checks. Our assessments will be systematically reviewed on an annual basis to reflect changes in exposure and/or newly emerging issues.

7. How does Sustainalytics calculate exposure scores for material ESG issues at the company level?

At the company level, exposure scores are calculated using the subindustry exposure score and a company-specific beta.

Betas capture company-specific information. Companies differentiate themselves from competitors by having products with different features, for example, or by having different cost structures (driven by different production locations, for example). We reflect these differences by applying a relative measure of risk, a multiplier, that is specific to the company and the ESG issue at hand. We call this an ESG issue beta, due to the similarity of the concept to the models known from asset pricing theories. See the next question for more information about betas.

8. What is Sustainalytics process for calculating and applying betas? Do they make the Ratings subjective?

There are four primary factors that can influence the beta of a company.

- The first is financial risk or leverage. The question to what degree an ESG issue may have an impact on the discounted value of a company's cash flows, is influenced by the overall financial health of a company. Ceteris paribus, the probability to survive the transition to a low carbon economy, for example (see respective carbon issues that the rating takes into account) is also a function of the financial soundness of a company, its leverage and cash position.
- The second is geographical exposure. Obviously, it can make a significant difference in what country a company has its production facilities or sells its products. For example, the exposure to water risks is driven by regional conditions of water scarcity. On the revenue side, it can make a big difference where a company is selling its products driven by differences in local laws and liability rules, for example.
- A third factor is previous events. If a company has a history of management failures, it is likely more exposed to an issue due to increased civil society and/or regulatory scrutiny.
- The fourth factor is what the company produces. An automobile company that has largely moved away from producing fossil-fuel powered cars is much less exposed to carbon-related issues than its peers in the subindustry.

Our approach to capturing company-specific factors is two-staged: our starting point is a quantitative model with which we capture the four factors mentioned above. Secondly, we apply a qualitative overlay that is provided by our industry experts when evaluating an individual company. The qualitative overlay captures factors that are not part of our standardized quantitative model. We also allow our analysts to adjust the calls of our quantitative model for good reason, such as new insights that are not yet reflected the data that feed into the quantitative model. The qualitative overlay allows us to reflect issue and sub-industry specific nuances, such as the specifics of a regulatory environment. The qualitative overlay is done by our analysts in a structured environment, i.e. based on a set of principles given to them as guidance. These principles as well as individual extreme cases are discussed and signed-off by a committee that is meeting regularly as well as on an ad-hoc basis if necessary. The documentation and meeting infrastructure that has been created around the qualitative overlay feature allows us to assure coherence and consistency.

9. Could you describe an example of a beta overlay using a company example?

Qualcomm is in the Communications Equipment subindustry. The subindustry's exposure to Business Ethics was set at medium (6) based on expert opinion. Qualcomm is an outlier within the subindustry because of the regulatory scrutiny it faces in multiple jurisdictions regarding anti-competitive practices, as well as multiple pricing lawsuits from its customer, Apple. For instance, a hostile takeover of Qualcomm by Broadcom was thwarted by the Committee on Foreign Investments in the United States, citing national security concerns. In addition, the company's proposed acquisition of

NXP Semiconductors is facing a prolonged investigation from China's anti-trust regulator. Due to these considerations and others, the final beta applied to the company's Business Ethics exposure is 1.5 compared to the quantitative beta of 1.05. Its exposure is therefore high (9).

10. Will the underlying event and management indicator weights change in the ESG Risk Rating?

Yes. The ESG Risk Ratings offer dynamic weights with changes driven by significant events. Weights can change due to disabling by analysts during the update process. Lastly, weights can also change in the context of the annual model update, which comprises a thorough review of the selection of material ESG issues and indicators at the subindustry level.

11. What is the issue contribution to the ESG Risk Rating?

Issue contribution is calculated as material ESG issue unmanaged risk divided by overall unmanaged risk. It shows the percentage of total unmanaged risk that is attributable to the material ESG issue.

12. What is your process for determining the share of manageable risk vs unmanageable risk?

The unmanageable risks component refers to risks that are inherent to a particular business model that cannot be managed by programmes or initiatives – such as product-related carbon risks for an oil company that arise from the burning of oil in the use phase. Unmanageable risk indicates that the company could not mitigate all exposure to an issue without changing its business model. For example, a tobacco company cannot feasibly manage its exposure to E&S Impact of Products while continuing to sell cigarettes. Unmanageable risks form part of the final unmanaged risk assessment for a company.

Unmanageable risks were predefined at the subindustry level for each material ESG issue during the development of the ESG Risk Rating. Industry experts were asked to consider the ability of a company to ensure compliance by its employees (e.g. occupational health and safety), the effect of outside actors on the ability of a company to manage an issue (e.g. cybersecurity) and the physical limitations on innovation or technology (e.g. airplanes and carbon use). Horizontal checks were done to ensure that principles were consistently applied across subindustries.

13. Do all events that a company is involved in impact its ESG Risk Rating?

For the ESG Risk Rating, we linked events that speak to management of material ESG issues. Those events are reflected in the rating. Any event that is rated a Category 4 or 5 is an Idiosyncratic Issue in the ESG Risk Rating. Events rated Category 1, 2, or 3 and are tagged to material ESG issues not selected for the company are not considered in the calculation of the Risk Rating because they miss our materiality requirements.

14. How should I interpret the final ESG Risk Rating? Is the highest score equal to highest risk?

A company's ESG Risk Rating score is assigned to one of five ESG risk categories in the ESG Risk Rating:

Negligible Risk (Overall Score of 0-9.99 points): Enterprise value is considered to have a negligible risk of material financial impacts driven by ESG factors
Low Risk (10-19.99 points): Enterprise value is considered to have a low risk of material financial impacts driven by ESG factors
Medium Risk (20-29.99 points): Enterprise value is considered to have a medium risk of material financial impacts driven by ESG factors.
High Risk (30-39.99 points): Enterprise value is considered to have a high risk of material financial impacts driven by ESG factors.
Severe Risk (40 and higher points): Enterprise value is considered to have a severe risk of material financial impacts driven by ESG factors

The higher the score the higher the risk of material financial impacts driven by ESG factors.

15. What are the most important signals in the ESG Risk Ratings?

This depends on the use case of the client, but the most important signal in the ESG Risk Rating is the final unmanaged risk score. This is the outcome of the rating and is the combination of the unmanaged risk in each material ESG issue selected for the company.

16. Have you back-tested the ESG Risk Ratings with historical data? Are there any correlations between a company's ESG Risk Rating and financial performance?

Yes, we have done in-depth empirical testing and found significant correlations between the metrics used in the ESG Risk Rating and financial performance as reflected by the total return on equity markets. We will share the results of these analyses in the ESG Risk Rating white paper that will be available at the end of September. Please note, however, that the empirical evidence we can present now should be viewed as partial tests and not as full back tests of the methodology. We will provide further robust testing as we fill historical data gaps.

17. Will company involvement in controversial products, such as tobacco, influence a company's ESG Risk Rating?

Product specific issues, including those specific to controversial product features, are mainly covered by the two MEIs "ESG Impact of Product & Services" and "Product Governance". The fact that a product has a sustainability or stakeholder impact is taken as an input in assessing the exposure and, hence, the materiality of an issue. The question here is whether the features of the product have a potential impact on the market value of the company as reflected in its future (discounted) cash flow stream or the company's systematic financial risk. Controversial products, such as tobacco, obviously do face significant regulatory risk, for example, that can severely impact a tobacco company's ability to generate revenues at reasonable costs. The expectation that further regulatory measures might be taken to lower the consumption of tobacco would lead to an increase in the sub-industry's exposure assessment. Company-specific factors, such as the markets a company is active in and the regulatory situation in these markets may then further increase exposure via the beta assessment for this company. Furthermore, our final assessment of a company, is impacted by the Manageable Risk Factor (MRF). In the case of tobacco companies, a large portion of product-related risks is not manageable by companies because they are too closely linked to inherent product features and, hence, are subject to regulatory action that can't be influenced by companies (beyond lobbying activities). See above for more information about manageable risk factors.

18. Are the ESG Risk Ratings forward looking?

The ESG Risk Ratings are by definition a forward-looking approach. This becomes apparent at several levels of the methodology:

- Via the exposure score, where we reflect how much a subindustry is exposed to risks for a particular MEI. For instance, the exposure score for oil & gas companies is high and reflects factors such as the regulatory risks that companies are facing from the future development of legislation towards a low carbon economy.
- Via the beta, which reflects the risk for a company, depending on factors such as their location, or the products they are selling in comparison with companies within the same subindustry. For instance, an oil and gas company might have a higher beta if its operations are in developed countries, where we expect higher regulatory risks going forward and shifts in consumer demand. The beta takes also into consideration past incidents, which can reflect, depending on the severity, an inability of the company to prevent future similar incidents.
- Via management indicators, which reflects the initiatives in place within the company that will enable it to mitigate ESG risks. For instance, a personal product company (e.g. L'Oreal) provides sustainable products, which enables it to mitigate risks of shift in consumer demand going forward.

19. What is the difference between the Comprehensive and Core Research Framework?

The Core Risk Rating uses a focused indicator set to approximate the ESG Risk Rating score. The output of the two Risk Ratings is the same; both produce an ESG Risk Rating score.
The design and development of the Core ESG Risk Rating was implemented to ensure that it is a close approximation of the Comprehensive ESG Risk Rating.

There are some important differences between the two ratings. The most important of these differences is that the Core Risk Rating does not break down risk between material ESG issues. There is only one final ESG Risk Rating score for companies in the Core universe. Other components from the ESG Risk Rating remain in the Core Risk Rating, although they have been slightly modified to reflect the fact that the Core Risk Rating does not explicitly distinguish between different material ESG issues. These include the Manageable Risk Factors and betas, which are all calculated at the overall level rather than the issue level.

Research Processes

20. What is your update cycle for ESG Risk Ratings?

Our underlying company research is updated annually based on companies' reporting cycles. The events research, which is not disclosure driven, is updated continuously as events occur. Structural adjustments to the rating (selection of material ESG issues, weighting of indicators) are to be done annually.

21. Do you engage with issuers on their ESG Risk Rating performance?

Our company feedback process for the ESG Risk Ratings occurs after the annual update of the company by analysts. We ask companies to provide feedback on our indicator assessments, which is the management portion of the ESG Risk Rating.

Application

22. Do the ESG Risk Ratings provide value to impact investors given their focus on financial materiality?

The ESG Risk Ratings are based on financial materiality considerations and focuses on risk for enterprise value. This means that its objective is not 1-to-1 aligned with impact investors' needs. Nevertheless, the ESG Risk Rating provides insights that are highly valuable for impact investors, and its features can be used in impact-oriented investing processes.

The ESG Risk Ratings rests on a two-step evaluation process regarding the selection and weighting of ESG issues. First, the materiality of an issue for a given subindustry is evaluated from a multi-stakeholder, ESG impact perspective (“**threshold 1”**). One could say that having significant impact is a necessary condition for being considered in our ESG Risk Rating. To be selected as a material ESG issue, however, a second condition needs to be fulfilled: the issue needs to have a potentially significant financial impact on a company. This is **“threshold 2”** and determines a sufficient condition.

The conclusion from the above is that all issues selected for a company have a significant multi-stakeholder, sustainability, ESG impact as targeted by impact-oriented investors. Based on that, our ESG Risk Rating provides a highly useful framework for impact-oriented investors that want to emphasize financial risk and return as the second dimension in their investment and/or engagement processes. “Provide positive impact at low financial risk” could be the motto of such an investor. For this to be implemented, an investor would, however, need to work with an impact signal from outside the ESG Risk Rating model.

For example, an impact investor could select companies that have a positive impact across different industries and use the ESG Risk Rating to minimize the financial risk of such a portfolio. Another approach could be using the ESG Risk Rating signal in engagement processes with companies to discuss the financial risk of ESG issues that have a significant impact from a multi-stakeholder perspective.

Note: When we talk about impact-oriented investment processes here, it is not about Impact Investing in a classical sense, which is more about direct investments and the provision of capital with purpose.

23. How can fixed income investors use the ESG Risk Ratings?

Yes. The perspective of fixed-income investors is a risk perspective. This should make the ESG Risk Rating attractive for them. Due to its risk perspective and its focus on financial materiality, it will help fixed-income investors to better integrate ESG considerations into their investment decision making processes. However, the main metric for fixed income investors is credit or default risk and not overall market value risk. The ESG Risk Rating is not directly trying to measure default risk. It is not focusing on single securities with different durations, for example, but is looking at overall ESG risk for a company. Hence, the ESG Risk Rating is not made for direct use in all fixed-income investment situations.

24. Are Sustainalytics' subindustry groups and industry groups aligned with GICS?

Sustainalytics has created its own classification system to structure companies into subindustries and industry groups. It is not aligned with other classification systems but the logic between systems is largely similar and therefore we would expect some alignment with other systems and significant overlaps of industry affiliations of companies.

25. What are the delivery channels for the ESG Risk Ratings?

Sustainalytics' ESG Risk Ratings will be available through Global Access and offered through our Data Services solutions.