Proposal For Environmental, Social, And Governance (ESG) Assessments

Analytical Contacts:
Laurence P Hazell, New York (1) 212-438-1864; laurence.hazell@spglobal.com
Laline S Carvalho, New York (1) 212-438-7178; laline.carvalho@spglobal.com
Kurt E Forsgren, Boston (1) 617-530-8308; kurt.forsgren@spglobal.com

Table Of Contents

Executive Summary

1. S&P Global Ratings' ESG Assessments
2. Assessment Pillars For Environmental And Social Risk Profiles
3. Management And Governance (M&G) Assessment Pillar
4. Environmental And Social Risk Management Pillar
5. Determining The Final ESG Assessment

Appendix A: S&P Global Ratings' Environmental Risk Profile Assessment Factors
Appendix B: S&P Global Ratings' Social Risk Profile Assessment Factors
Proposal For Environmental, Social, And Governance (ESG) Assessments

Executive Summary

S&P Global Ratings is seeking feedback on a potential new ESG evaluation framework and scoring methodology it is developing for corporate issuers (referred to herein as the "ESG assessment tool" or the "tool") to evaluate a company's impact on the natural and social environments it inhabits, the governance mechanisms it has in place to oversee those effects, and potential losses it may face as a result of its exposures to such environmental and social risks. These losses (or increased costs) could stem from a variety of sources including potential increased/changed regulations, litigation, manmade or natural catastrophe events, and resource scarcity/degradation, among others. We believe these potential impacts, in turn, could weaken a company's business risk and financial risk profiles over time, unless properly managed, including effective mitigation strategies. The ESG assessment tool is not a credit rating.

In May, S&P Global Ratings expressed support for initiatives being promulgated by the United Nations Principles for Responsible Investment (UN-PRI) that recognize the needs of investors for greater clarity on how ESG factors are considered in credit analysis. This reflects our commitment to transparency in the way in which we consider ESG factors when determining credit ratings, and support for industry efforts to encourage consistent public disclosure by issuers on ESG factors that may impact creditworthiness.

Our proposed ESG assessment tool is not part of our credit rating methodology. However, we do consider certain related factors, as set forth in "Management And Governance Credit Factors For Corporate Entities And Insurers" (M&G), published Nov. 13, 2012, which includes reference to the management of environmental and social risks and the oversight of these risks by a company's board of directors. The proposed ESG assessments would be offered separately from our credit ratings to provide greater transparency into ESG risk.

We propose ranking rated issuers on a five-point scale based on our view of the degree to which each issuer has greater or lesser exposure to ESG risk over the medium to long term. We define medium term as the next two to five years, and long term beyond five years. We expect to assign different weightings to the medium-term and long-term horizon, and propose greater weighting toward the medium term. This reflects our view that medium-term risk is more discernable, and that the impacts of these nearer-term risks are more assessable in terms of risk to creditworthiness.

We are considering basing our ESG assessments on four main pillars, or subfactors:

- Subfactor A: Environmental Risk Profile (E)
- Subfactor B: Social Risk Profile (S)
- Subfactor C: Management and Governance (G)
- Subfactor D: Environmental and Social Risk Management

The proposed framework would also consider incorporating a mitigation history modifier for subfactors A and B, so we could differentiate a company with a strong environmental and social mitigation history over a given time period (we are proposing the past 10 years, on a rolling forward basis) from one with weaker mitigation risk, as seen in the
number of E and S related adverse events during that period. This historical view would be balanced and weighted against the forward-looking perspective of our fourth pillar, the environmental and social risk management assessment.

We are proposing to give the four subfactors different weightings based on our view of their importance relative to the other subfactors. We are endeavoring to make these subfactor weightings the same for all issuers, so that the results of the ESG assessment tool can be comparable across different industries and peer groups.

We look forward to receiving your responses to our questions, and any additional observations, and discussing our approach with investors, issuers, governments, multilaterals and intermediaries.

To access the survey feedback platform, please click on the following link or paste it into your browser: www.spratings.com/esg.

1. S&P Global Ratings' ESG Assessments

1.1 Proposed assessment scale

Our approach to ESG assessment proposes to consider ranking companies on a five-point scale based on our view of the degree to which they have greater or lesser exposure to ESG risks over the medium to long-term (see table 1). For the purposes of our assessment we intend to define medium-term as the next two to five years, and long-term as beyond five years.

Our ESG assessment tool proposal would compare rated issuers across a fixed set of pillars, with weightings for those pillars that can facilitate comparability across different industry sectors.

### Question 1

Is our proposed range for defining ESG risks robust enough to capture outliers and differentiate between entities in the mid-range?

### Table 1

<table>
<thead>
<tr>
<th>ESG Assessment</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>★★★★★</td>
<td>Low exposure to ESG risks</td>
</tr>
<tr>
<td>★★★★</td>
<td>Modest exposure to ESG risks</td>
</tr>
<tr>
<td>★★★</td>
<td>Moderate exposure to ESG risks</td>
</tr>
<tr>
<td>★★</td>
<td>High exposure to ESG risks</td>
</tr>
<tr>
<td>★</td>
<td>Very high exposure to ESG risks</td>
</tr>
</tbody>
</table>
1.2 Methodology
We are considering basing our ESG assessment on four main pillars (see chart 1):

- Subfactor A: Environmental Risk Profile
- Subfactor B: Social Risk Profile
- Subfactor C: Management and Governance Assessment
- Subfactor D: Environmental and Social (E&S) Risk Management Assessment

This proposed analytical framework would also consider incorporating a mitigation history modifier for E&S Risk Profiles, such that a company with a strong E and S mitigation history over a proposed defined period of time (for example, the past 10 years) will be differentiated from a company with a weaker mitigation risk as seen in the number of E- and S-related adverse events during that period.

We are proposing to give the four subfactors different weightings based on our view of their importance relative to the others. We are proposing to make these subfactor weightings the same for all issuers, so that the results of the assessment tool can be comparable across different industries and peer groups.

The final score will translate into our ESG assessment scale by using the proposed Score Ranges guideline shown in table 4 below.
1.3 Time frame for request for comment
This consultation period, beginning on Sept. 5, 2016, and ending on Oct. 17, 2016, will help the development of our ESG scoring tool in time for its scheduled prototype launch before year-end.

Schedule of request for comment:

- Sept. 6, 2016: White paper released
- Oct. 17, 2016: Deadline to submit comments via an online platform, which can be accessed here www.spratings.com/esg.
- Oct. 18, 2016: Webinar to discuss feedback and further steps.

2. Assessment Pillars For Environmental And Social Risk Profiles

2.1 Environmental risk profile
We are proposing to derive the environmental risk profile by analyzing a company's exposure to environmental risks through two separate metrics:

2.1.1 Greenhouse gas (GHG) risk exposure assessment

This metric is still in development but aims at classifying issuers according to their greenhouse gas intensity. We propose that issuers would fall into one of five categories:

<table>
<thead>
<tr>
<th>GHG Risk Exposure Assessment</th>
<th>Score Ranges</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Minimum GHG intensity</td>
<td>1.00-1.49</td>
</tr>
<tr>
<td>2 - Modest GHG intensity</td>
<td>1.50-2.49</td>
</tr>
<tr>
<td>3 - Moderate GHG intensity</td>
<td>2.50-3.49</td>
</tr>
<tr>
<td>4 - High GHG intensity</td>
<td>3.50-4.49</td>
</tr>
<tr>
<td>5 - Maximum GHG intensity</td>
<td>4.50-5.00</td>
</tr>
</tbody>
</table>
Table 3

<table>
<thead>
<tr>
<th>GHG Risk Exposure Assessment (cont.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 - Very high GHG intensity</td>
</tr>
</tbody>
</table>

We believe issuers with a higher GHG intensity would have a weaker environmental risk profile, while issuers with a lower GHG intensity would have a stronger environmental risk profile. This reflects our view that companies with a higher GHG footprint are more likely to face increasing challenges in coming years, as a significant number of world economies continue to move towards an energy (and technological) transition in line with lower targeted GHG emissions.

2.1.2 Environmental risk exposure assessment

We expect this subcategory to measure companies' degree of environmental risk exposures to a set of broad categories broken out as follows:

Table 4

<table>
<thead>
<tr>
<th>Environmental Risk Exposure Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Climate change impacts</td>
</tr>
<tr>
<td>2. Water use/scarcity/efficiency and decontamination</td>
</tr>
<tr>
<td>3. Waste pollution and toxicity</td>
</tr>
<tr>
<td>4. Energy/land use and biodiversity</td>
</tr>
</tbody>
</table>

Question 3

Are there other environmental risks that should be considered beyond the four listed above (please see Appendix A)?

For each environmental risk exposure category, we would propose to assess companies as having one of three levels of exposure: 1) minimum, 2) moderate, and 3) significant. We would measure these levels of exposure separately over two time horizons: 1) medium term (the next two to five years); and 2) long-term (beyond five years).

We expect the result of this analysis to lead to an overall assessment of an issuer's medium- and long-term environmental risk exposures. We expect to assign different weightings to the overall environmental risk exposure assessment view over the medium- and long-term horizons, with greater weighting towards the medium term. This is because we believe we can better measure medium-term risks relative to long-term risks, where there is greater uncertainty related to the potential range and severity of outcomes.

Table 5

<table>
<thead>
<tr>
<th>Environmental Risk Exposure Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Medium-term environmental risk exposure (defined as next two to five years; X% weighting)</td>
</tr>
<tr>
<td>a1 - Minimum</td>
</tr>
<tr>
<td>a2 - Moderate</td>
</tr>
<tr>
<td>a3 - Significant</td>
</tr>
</tbody>
</table>
2.1.3 Arriving at a final subscore for the environmental risk profile

After arriving at separate subscores for 1) GHG risk exposure assessment and 2) environmental risk exposure assessment, we expect to add their results on a weighted-average basis to arrive at the overall subscore for the environmental risk profile assessment, or subfactor A. We are proposing a 50-50 weighting for GHG risk exposure and environmental risk exposure, respectively, reflecting our view that both of these metrics constitute significant indicators of an issuer's overall environmental risk profile.

2.2 Social risk profile

This metric would reflect our view of the degree of social risk that issuers may be exposed to over different time horizons, defined as medium-term (two to five years) and long-term horizons (beyond five years). Similar to our proposed approach on the environmental risk profile analysis, we expect to evaluate a broad spectrum of social risk exposures, in terms of impacts that companies can have on society and vice versa.

We are proposing to organize the breadth of social impacts into four specific areas covering (1) the company's...
management of human capital; (2) its community and societal impact, responsibilities, and relationships; (3) engagement with its customers, regulators, policymakers, and industry groups; and (4) maintenance of its social license to operate. We would analyze company, third-party, and other information for our analysis of the issuer’s social risk profile along these parameters. We acknowledge the complexities of categorizing social phenomena for analytical purposes, and will be sensitive to overlaps and redundancies in scoring these four areas.

**Question 7**

Are there areas outside of the four proposed social impacts that should inform our view of the social risk profile (please see Appendix B)?

Similar to the proposed approach in our environmental risk profile assessment, we expect to assign different weightings to the medium- and long-term horizon, with greater weighting towards the medium term. This reflects our view that, similar to environmental risks, medium-term social risks can be better measured than long-term social risks. This chart summarizes our current thinking:

<table>
<thead>
<tr>
<th>Table 7</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subfactor B: Social Risk Profile</strong></td>
</tr>
<tr>
<td>a) Medium-term social risk exposure (defined as next two to five years; M% weighting)</td>
</tr>
<tr>
<td>b1 - Minimum</td>
</tr>
<tr>
<td>b2 - Moderate</td>
</tr>
<tr>
<td>b3 - Significant</td>
</tr>
<tr>
<td>b) Long-term social risk exposure (defined as beyond five-year horizon; N% weighting)</td>
</tr>
<tr>
<td>b4 - Minimum</td>
</tr>
<tr>
<td>b5 - Moderate</td>
</tr>
<tr>
<td>b6 - Significant</td>
</tr>
</tbody>
</table>

**2.3 Environmental and social mitigation history modifier**

In our view, a company's history of success (or failure) in mitigating its environmental and social risks is something that deserves inclusion in an ESG assessment. This reflects our view that given two issuers operating in similar industries and with similar product and geographic footprints, an issuer with a proven history of no significant E&S loss-related event(s) over a meaningful time period has a less risky environmental and social risk profile, and is better positioned to face these risks in future years, compared with a company that has experienced significant E&S-related losses.

We are proposing to analyze a company's mitigation history over 10-year horizon to recognize that losses incurred from environmental and social risk factors (such as an oil platform explosion, large toxic contamination, a material labor or human-rights infraction or litigation) can follow a low-frequency/high-severity pattern that should be analyzed over such long periods.

The mitigation history modifier will have three subcategories: 1) positive, 2) neutral, 3) negative. We expect the positive modifier to result in an improved score for the issuer’s combined environmental and social risk profiles, while
we expect the negative modifier to result in a worsened score. We will apply the modifier over the combined result for the environmental and social risk profiles as follows:

Table 8

<table>
<thead>
<tr>
<th>Subscore</th>
<th>Proposed multiplication factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>1.0 minus X1, where X1 range is 0.1-0.2</td>
</tr>
<tr>
<td>Neutral</td>
<td>No adjustment</td>
</tr>
<tr>
<td>Negative</td>
<td>1.0 plus X2, where X2 range is 0.1-0.2</td>
</tr>
</tbody>
</table>

In applying this modifier we would expect that the vast majority of issuers will be in the neutral category. We would expect to apply the positive score to companies that have a significant, differentiated, and successful history of environmental and social risks mitigation, in particular, relative to peers within the same industry. Conversely, we expect to apply the negative score to companies that have a significantly worse-than-peer history of adverse E&S-related losses.

Question 8

Do you agree with incorporating an issuer's environmental and social mitigation history and resolution in our assessment tool?

3. Management And Governance (M&G) Assessment Pillar

For the purposes of the management and governance assessment subfactor we expect to apply the same analysis we use to evaluate a company's M&G when determining a credit rating in accordance with our November 2012 credit ratings criteria "Management And Governance Credit Factors For Corporate Entities And Insurers." The assessment of management and governance is one of many that we undertake when determining a credit rating.

Our scoring methodology for corporate entities uses the following subfactors:

Strategic Positioning

- Strategic planning process
- Consistency of strategy with organizational capabilities and marketplace conditions
- Ability to track, adjust, and control execution of strategy

Risk Management

- Comprehensiveness of risk management standards and tolerances
- Standards for operational performance

Organizational Effectiveness

- Management's operational effectiveness
Management's expertise and experience
• Management depth and breadth

Governance
• Board effectiveness
• Entrepreneurial or controlling ownership
• Management culture
• Regulatory, tax, or legal infractions
• Communication of messages
• Internal controls
• Financial reporting and transparency

Assessments of management and governance have four overall scoring outcomes: strong, satisfactory, fair, and weak. We allow for positive, neutral, and negative evaluations of management's capabilities for different subcategories. However, regarding governance, our M&G criteria only permit neutral or negative evaluations.

Table 9
Subfactor C: Management And Governance

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strong</td>
</tr>
<tr>
<td>2</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>3</td>
<td>Fair</td>
</tr>
<tr>
<td>4</td>
<td>Weak</td>
</tr>
</tbody>
</table>

4. Environmental And Social Risk Management Pillar

Our environmental and social risk management assessment pillar would aim to be a prospective assessment that evaluates the degree to which an issuer is proactively managing its environmental and social risks, and the likelihood that current efforts will likely help reduce the occurrence of potential E&S-related losses outside management's tolerance levels (or expectations).

Companies, we propose, would be assessed as falling into one of four categories:

Table 10
Subfactor D: E&S Risk Management

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strong</td>
</tr>
<tr>
<td>2</td>
<td>Adequate</td>
</tr>
<tr>
<td>3</td>
<td>Less than adequate</td>
</tr>
<tr>
<td>4</td>
<td>Weak</td>
</tr>
</tbody>
</table>

We expect only a small proportion of the issuers we analyze to receive strong or adequate assessments for this subfactor, reflecting our view that to-date only a small proportion of issuers have developed--and are acting upon--a fully comprehensive risk management framework to specifically reduce environmental and social risks consistent, for example, with a 2-degree Celsius scenario. For this reason, we expect most issuers to (at least initially) fall in the less than adequate or weak categories.
We are also considering capping a company's environmental and social risk management subfactor at weak when its M&G assessment is weak. This is because we believe weak management teams are unlikely to be able to effectively focus on, and fully dedicate needed resources to, longer-term risks such as environmental and social risks.

**Question 9**

Do you agree with our proposed approach for capping a company's environmental and social risk management subfactor at weak when we assess their management and governance as weak?

### 5. Determining The Final ESG Assessment

We are proposing to derive our final ESG assessment by adding our resulting subscores for A) environmental risk profile, B) social risk profile, C) M&G assessment, and D) environmental and social risk management as follows:

**Table 11**

<table>
<thead>
<tr>
<th>Category</th>
<th>Score (1-5)</th>
<th>Weight (0-100%)</th>
<th>Subscore (1-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental risk profile</td>
<td>Subfactor A</td>
<td>W1</td>
<td>Subfactor A x W1 (see note)</td>
</tr>
<tr>
<td>Social risk profile</td>
<td>Subfactor B</td>
<td>W2</td>
<td>Subfactor B x W2 (see note)</td>
</tr>
<tr>
<td>Management and governance assessment</td>
<td>Subfactor C</td>
<td>W3</td>
<td>Subfactor C x W3</td>
</tr>
<tr>
<td>Environmental and social risk management</td>
<td>Subfactor D</td>
<td>W4</td>
<td>Subfactor D x W4</td>
</tr>
<tr>
<td>Final score</td>
<td>Sum</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: After application of Environmental and Social Mitigation History Modifier

**Question 10**

What relative weightings would you suggest for an overall ESG risk assessment?

The resulting score would then flow into the respective final assessment in our ESG scale as proposed below:

**Table 12**

<table>
<thead>
<tr>
<th>ESG Score Ranges</th>
<th>ESG Assessment</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.00-1.49</td>
<td>★★★★★</td>
<td>Low exposure to ESG risks</td>
</tr>
<tr>
<td>1.50-2.49</td>
<td>★★★★</td>
<td>Modest exposure to ESG risks</td>
</tr>
<tr>
<td>2.50-3.49</td>
<td>★★★</td>
<td>Moderate exposure to ESG risks</td>
</tr>
<tr>
<td>3.50-4.49</td>
<td>★★</td>
<td>High exposure to ESG risks</td>
</tr>
<tr>
<td>4.50-5.00</td>
<td>★</td>
<td>Very high exposure to ESG risks</td>
</tr>
</tbody>
</table>
Appendix A: S&P Global Ratings' Environmental Risk Profile Assessment Factors

In our analysis of a company's environmental risk profile we would propose to consider a number of environmental risk factors, that may include (but are not limited to) some or all of the following:

Climate change

- Which company (and supply chain) activities make the greatest contribution to greenhouse gas emissions?
- Does the company (and suppliers) operate in regions susceptible to climate change effects? (flood, drought, hurricane, etc.)
- Are corporate operations geographically concentrated and/or reliant on a specific location(s)?
- Does the company have mitigation programs in place for climate change risk in terms of lessening its own climate footprint and/or impacts from climate change?
- Are there legal/regulatory impacts on the company and/or its suppliers with respect to climate change?

Water use/scarcity/efficiency and decontamination

- What are the water usage requirements for the company (and supply chain) operations?
- Does the company or its suppliers operate in water-stressed (scarce) regions?
- Are mitigation programs in place for efficient water use, recycling and decontamination?
- Is the company using or developing water-efficient technology for its operations?
- Are there legal/regulatory impacts on the company and/or its suppliers with respect to water usage?

Waste, pollution, and toxicity (WPT)

- Does the company (supply chain) produce waste and/or hazardous waste?
- Are WPT from operations quantified and measured?
- Has the company (supply chain) experienced any WPT incidents in the last 20 years?
- Is there a corporate WPT policy and risk management process in place?
- Are there legal/regulatory impacts on the company and/or its suppliers with respect to WPT?

Energy, land, and biodiversity (ELB)

- What is the company's (and supply chain's) footprint for energy use (renewable/non-renewable)?
- What is the company's (and supply chain's) footprint for land use (and/or reclamation)?
- Do corporate/supply chain operations adversely impact biodiversity (e.g., marine habitat)?
- Is there a corporate ELB policy and risk management process in place?
- Are there legal/regulatory liabilities and responsibilities on the company and/or its supply chain with respect to ELB?

In our analysis we propose to also consider whether the company or its suppliers had incidents, controversies, or adverse legal/regulatory findings with respect to any environmental risks over the last 10+ years.
Appendix B: S&P Global Ratings' Social Risk Profile Assessment Factors

In our analysis of a company's social risk profile we would propose to consider a number of social risk factors that may include (but are not limited to) some or all of the following:

Human capital management, occupational health and safety, and human rights

- Are there specific skills that are vital for the company's products and operations?
- What are the turnover rates among these identified skillsets?
- What are the key measures and metrics for employee attraction and retention?
- What steps does the company take in terms of occupational health, safety, and wellbeing, and the advancement, protection, and enforcement of human rights (including suppliers)?
- Is corporate labor representation significant and how are these labor relations managed?

Community/society relations

- Do company (and supplier) operations distress neighboring communities and what steps are taken to mitigate those impacts?
- Does the company's enterprise risk management program include environmental and social impacts on neighbors (e.g., emissions' impact on local air quality, noise from operations, pollution from production processes, etc.)?
- Do company (and supplier) operations and products create reputational issues for the company, and how are those issues managed and mitigated?
- Are operational and product innovations and developments considered from the perspective of their impact on local communities and wider society?
- Is the company a signatory to socially responsible third-party organizations that require regular reporting on the company's operations and products, and their impact on its neighbors and wider society?

Engagement with customers, regulators, policymakers, and industry groups

- Does the company regularly engage with its customers to inform itself of their needs, and of their satisfaction with its products and means of production?
- Does the company regularly engage with regulatory and other legal authorities to keep abreast of legal, regulatory, and compliance developments?
- Does the company interact with legislators and policymakers, and does it assess risks associated with those interactions?
- Does the company interact with industry groups/trade associations to ensure implementation of best practices across the organization?
- Is the company's board of directors regularly briefed on current and emerging liabilities and does the company use outside counsel/experts to survey and surface these risks?

Liabilities and maintaining the company's social license to operate

- Does the company disclose risk management programs and designate personnel to speedily respond to legal and reputational issues arising from its operations and products?
- Does the company disclose and utilize insurance or other third-party providers to minimize or mitigate its exposure to legal and reputational risk?
- Does the company articulate and regularly update its risk profile for investors and stakeholders?
• Are disciplinary policies and whistleblower programs in place to protect the corporation’s reputation?
• In the last five years, has the company responded positively/negatively to investor and stakeholder concerns regarding lobbying and political engagement?

Similar to our analysis of environmental risks, in the social factor analysis we propose to consider whether the company or its suppliers had incidents or adverse legal/regulatory findings with respect to any social risks over the last 10+ years.