MOODY'S
INVESTORS SERVICE

REQUEST
FOR COMMENT

General Principles for Assessing Environmental, Social and Governance Risks: Proposed Methodology Update – Enterprises Appendices

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Summary

In this Request for Comment, we propose to update the *General Principles for Assessing Environmental, Social and Governance Risks* cross-sector rating methodology with the addition of appendices that would provide more detailed information on the principal considerations for assigning Environmental, Social and Governance issuer profile scores (IPSs) and credit impact scores (CISs) for enterprises globally. Enterprises include non-financial corporates as well as public sector enterprises that have business-like operations and revenues.[1]

The key proposed revisions to the current methodology are as follows:

» **Provide more details on the credit implications to enterprises of E, S and G considerations and how our assessment leads to the assignment of IPSs and CISs.** We would add an appendix that describes how we apply the general framework for determining E, S and G IPSs, as well as CISs, described in Appendices A and B of the methodology respectively, to enterprises. Our assessment of an enterprise's exposure to ESG risks and benefits would be primarily qualitative, and the appendix would describe relevant considerations generally applicable across enterprise sectors. Our qualitative assessment may be informed by indicative quantitative metrics. These metrics are indicative and are often not available for all rated entities. Metrics also typically vary across different sectors (e.g., packaging, airlines) reflecting varying relevance of particular metrics across sectors and differences in reporting standards and disclosure levels. See proposed Appendix 1.

» **Provide more details on the qualitative considerations and illustrative types of quantitative metrics that may inform assignment of IPSs and CISs for enterprises in a companion document.** We propose to add a compendium document that would provide a description of the types of considerations and indicators that may be generally relevant across enterprise sectors for informing our assessment of E, S and G risk categories and assigning IPSs for enterprises. Over time, we would expect to expand this compendium to provide further sector-based detail (e.g., for packaging or airlines) of more sector-specific considerations and the types of metrics we may use, which we may broaden or adjust, for

[1] The issuers we propose to cover under this framework are non-financial corporations, which are categorized under the private sector in our heat maps, including utilities, corporate infrastructure and REITs, as well as project finance issuers and public sector issuers that have business-like revenue-raising capacity through the implementation of fees for service, such as municipal utilities, airports, toll roads, ports, mass transit enterprises, hospitals, housing agencies and higher education institutions.

example, as more data become available or other indicators are viewed as relevant to our analysis. See proposed appendix 2.

» **Provide more details on how we may use public data to inform our scoring of two governance risk categories.** We propose to add an appendix that describes how we arrive at indicative scores to inform our qualitative assessment for Board Structure, Policies and Procedures and for Compliance and Reporting. The indicative scores are based on a defined set of questions using data sourced from public filings and can only be obtained for issuers where the set of questions is applicable and the related data are available. See proposed Appendix 3.

Following publication of the updated methodology, we would to enhance transparency in our communication of E, S and G considerations, which we already incorporate into our credit analysis, by assigning IPSs and CISs to enterprises over time.

Impact on Ratings

If this cross-sector methodology is updated as proposed, we expect no changes to outstanding ratings for enterprises globally. In establishing E, S and G IPSs, we propose to use the general principles described in the existing methodology. The CIS is an output of the rating process that more transparently communicates our assessment of the impact of ESG considerations on assigned ratings in the context of other credit drivers. As such, our proposed publication of CISs will not change any ratings, currently or in the future.

This expected rating impact only reflects the methodological changes noted above and does not incorporate potential impact from other factors, including prevailing market conditions or factors specific to a particular issuer or transaction, such as financial metrics or qualitative considerations, that may be relevant to the rating analysis.

How to Submit Comments

In this Request for Comment, we are seeking feedback on our proposed addition of three appendices to the *General Principles for Assessing Environmental, Social and Governance Risks* rating methodology. The proposed enterprises appendices for the methodology follow. Prior to publication of the revised methodology, we may also consider other changes to the methodology as a result of the consultation process and our internal review.

We invite market participants to comment on the Request for Comment by March 22, 2021, no later than 11:59 p.m. US Eastern time, by submitting comments on the Request for Comment page at www.moodys.com. Upon appropriate consideration of received comments, we will adopt and publish a revised *General Principles for Assessing Environmental, Social and Governance Risks* rating methodology.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

Proposed Appendix 1

Issuer Profile Scores and Credit Impact Scores for Enterprises

In this appendix, we describe how we apply the general framework for determining E, S and G IPSs and ESG CISs (described in Appendices A and B, respectively) to enterprises. The issuers covered under this framework are non-financial corporations and project financings, including utilities, corporate infrastructure and REITs, as well as public sector issuers that have business-like revenue-raising capacity through the implementation of fees for service, such as municipal utilities, airports, toll roads, ports, mass transit enterprises, hospitals, housing agencies and higher education institutions.[2] All of these sectors are categorized under the private sector in our ESG heat maps.

In establishing E, S and G issuer category scores and overall IPSs for enterprises, we make a qualitative assessment of the issuer exposure to the related risks or benefits. Our assessment of E, S and G focuses on credit-relevant considerations and the extent to which they are positive or negative for credit profiles. Issuer category scores reflect our assessment of the likelihood and magnitude of current and future credit exposures related to the category of risk, including their effect on earnings, cash flow, business strategy and business profile. These assessments are forward-looking but may also be informed by the entity's previous experience of these risks. In some cases, our assessment may be informed by scenario analysis, for example for risks that are event-driven risks or are long term, such as carbon transition risk or some physical climate risks.

The IPS and category scores also incorporate meaningful mitigating or strengthening actions related to those specific exposures. Risk mitigation on its own does not indicate an IPS or category score of 1. To score an IPS of 1 on any category or for the E, S or G overall IPS overall, an enterprise must derive a material credit benefit. For example, an enterprise may score E-1 if we assess that it will likely obtain a material and sustainable business advantage from environmental considerations.

Our assessment may be informed by metrics that are relevant to risks, benefits and ESG-specific mitigants. These metrics are indicative and are often not available for all rated entities. Metrics also typically vary across different sectors (e.g., packaging, airlines) reflecting varying relevance of particular metrics across sectors and differences in reporting standards and disclosure levels. The metrics are generally found in an issuer's public disclosures or relevant third-party sources. We may also consider scorecard factors or sub-factors in our sector methodologies, in particular for governance (e.g., a financial policy factor score). We may also incorporate non-public information. Please see Appendix 2 for a description of the types of indicators that may be generally relevant across enterprise sectors for informing our assessment of E, S and G risk categories and assigning IPSs for enterprises. Over time, we may broaden or adjust our metrics, for example, as more data become available or other indicators are viewed as relevant to our analysis, and we may update these examples. We may also over time add examples of qualitative considerations and metrics for more sectors.

The E and S sector heat map category scores provide useful general references for an issuer profile analysis. However, dispersion within a sector may vary, and sector scores do not, for example, capture regional variations. Some sectors, such as airlines, include entities with largely similar business models that typically face comparable environmental and social risks and opportunities. For these sectors, we may consider whether an issuer has characteristics that suggest a different exposure than that of its sector. Other sectors,

[2] For clarity, this framework applies to non-financial corporate GRIs with a Baseline Credit Assessment (BCA) and public sector revenue enterprises that are not classified as GRIs. This framework does not apply to GRIs without a Baseline Credit Assessment rated based on support or other enterprises whose ratings are primarily based on support from another entity.

such as business services and manufacturing, may include a more diverse group of entities likely to face more disparate risks and opportunities, in which case we would generally expect more dispersion around the sector score. Sector heat map scores also do not incorporate E and S specific mitigants, which may result in an issuer category score that is better than the respective sector category score.

E, S and G risks may cross multiple categories. For example, risks pertaining to water could manifest in water management risk (e.g., restricted access) or in natural capital (e.g., damage to water sources an enterprise relies on for operations). Legal and reputational risks may arise in multiple categories. Operational failures related to health and safety could drive heightened risks across other E, S and G categories (e.g., disruption of production, poor community relations, greater regulatory oversight). When assigning an E, S or G IPS, we consider the interplay and potential overlap among categories in that component to avoid overstating or understating the risks or benefits.

As discussed in Appendix B, the CIS helps to explain the impact of ESG considerations in the context of the issuer's other credit drivers that are material to a given rating.[3]

Issuer Profiles

Environmental Issuer Profile

Environmental considerations are often a source of risks for enterprises. Regulatory or policy initiatives aimed at reducing or preventing negative environmental trends or hazards, as well as the trends and hazards themselves, may affect market demand, revenue, costs or cash flow for enterprises. For some enterprises, environmental considerations are a source of credit strength, for instance because consumers' concerns about reducing their carbon footprint or increased storm severity increase demand for certain products or services.

In the sections below, we describe the principal credit implications from environmental considerations for enterprises.

CARBON TRANSITION

Carbon transition risk encompasses policy, legal, technological and market changes likely to be associated with a transition to a lower carbon economy. Tightening of global or regional regulatory regimes related to carbon dioxide and other greenhouse gases may affect and, in some cases, disrupt business models and long-term financial and strategic planning. For some entities, the shift to a lower carbon economy may reduce demand, increase compliance costs, or necessitate significant investment to adapt and diminish expected return on assets.

An enterprise's business mix, including its exposure to the hydrocarbon value chain and the contribution of different activities to revenue, profits and cash flow is typically an important consideration. Entities that rely on carbon-intensive assets to operate and those selling products or services that result in significant emissions generally have higher exposure to this risk than those with low carbon footprints and those that sell more carbon-neutral products. The extent to which operations are subject to changes in technology, market and policy changes related to carbon transition may also indicate inherent exposure.[4]

[3] For the CIS, the reference rating for non-financial corporates is the senior unsecured rating or issuer rating where the enterprise is an investment grade issuer or the corporate family rating (CFR) where the issuer is speculative grade. For sub-sovereigns outside the US, the reference rating is the issuer rating or senior unsecured rating. For US public finance, the reference rating is the issuer rating or the rating of the senior-most unenhanced, uncollateralized obligation of the enterprise, i.e., the senior-most unenhanced, uncollateralized revenue debt rating or the rating of the senior-most unenhanced, uncollateralized full faith and credit obligation, as applicable. For government-related issuers (GRIs), the reference rating for the CIS is the issuer rating or senior unsecured rating, while our IPS analysis is based on the Baseline Credit Assessment. For project finance issuers, the reference rating is the senior secured rating.

[4] Where available, we may use Moody's carbon transition assessment (CTA) framework scores to inform our assessment of the category score. A weaker CTA score is generally associated with more significant carbon transition risks, while a very strong CTA score can be indicative of potential benefits from carbon transition.

Greenhouse gas emissions intensity and energy consumed by operations may be a relevant consideration, as well as the location of assets, because regulations and policies may vary by geography. In some sectors where a carbon market may exist, whether an issuer sells or buys carbon credits may be a relevant consideration. Current or expected "stranded assets" (i.e., assets that become unprofitable due to carbon transition risk) may indicate higher risk. The level of expertise related to climate and carbon transition within an enterprise, the timeliness and effectiveness of actions taken to adapt, and the likely credit effect of its strategy for carbon reduction and energy transition and investment in alternatives under different scenarios may also be relevant.

Entities may diversify their business mix from higher risk assets, and some may benefit from shifts in end-user demand. Increased availability of scalable, more energy-efficient technologies may also help to offset risk. In some sectors, regulatory frameworks may provide reimbursement mechanisms that help to offset risk. The transition to lower-carbon inputs, processes and products has the potential to provide competitive advantage to enterprises that adapt while meeting market needs and maintaining cost efficiency, potentially at the expense of enterprises that fail to adapt or control costs.

PHYSICAL CLIMATE RISKS

The nature and the location of an enterprise's activities may create vulnerability to heat stress, water stress or extreme weather events (e.g., hurricanes, floods, wildfires), as well also long-term trends such as rising sea levels.[5]

For example, rising sea levels and droughts may affect production or distribution costs. Some types of entities have materially lower intrinsic exposure, because their activities are less reliant on physical facilities or they can easily relocate their activities without incurring substantial cost. The appeal of products or services to customers may vary based on long-term trends and hazards. For example, customer demand may increase or decline with extended periods of higher temperature.

Floods and hurricanes can damage infrastructure and disrupt operations, so the location of an enterprise's operations may be a relevant consideration. For example, assets in low-lying coastal areas are more susceptible to rising sea levels and storms, whereas the risk of wildfires, which may create material liabilities, is more prevalent in or near forested drought-prone areas. Other relevant considerations for an enterprise with at-risk assets may include whether it has meaningful reserves or insurance to help recoup damage-related costs as well as whether it benefits from cost recovery mechanisms (e.g., in regulated rates or tariffs).

Some physical climate risks may lend themselves better to physical mitigation, for example by hardening of infrastructure assets against flooding. Issuers may manage exposure through operational redundancies, technological deployment, geographic diversification of assets, or cost recovery mechanisms.

WATER MANAGEMENT

This category focuses on the management and governance of water resources. These include, for example, water consumption, availability, efficiency and access, pricing, quality and pollution, which may affect profitability. Environmental restrictions may affect an enterprise's ability to operate, violation of regulations related to water usage (e.g., overuse or pollution of water) may result in fines, and difficulty in obtaining permits may raise costs. Climate change considerations such as drought or changing rainfall patterns that could affect water supply are covered under our physical climate risk category.

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[5] The physical climate risks category excludes geophysical risks, such as earthquakes, volcanoes and tsunamis.

Enterprises that rely heavily on water as a critical component of operations generally have higher exposure to water management risk, and certain locations have higher water stress (i.e., a greater supply/demand imbalance). For example, an issuer that needs a significant amount of water to operate may compete with local communities for limited water resources. The necessity of the enterprise's product or service may affect its access to water; for example food production may receive priority in water usage over other products and services. Relevant considerations may include an issuer's consumption patterns, the availability and pricing of water in its areas of operations, ease of water access and distribution, water quality, and water costs relative to overall costs of the product or service. Enterprises with a track record of significant enforcement actions against them and poor governance around water management generally have higher risk than entities with better water management practices or those with limited water usage.

Enterprises that rely heavily on water may pursue efforts to offset water management risk, e.g., through the use of recycled water, improved efficiency of water use and better wastewater management. For some entities, an ability to relocate operations to lower water stress locations can reduce risk exposure.

WASTE AND POLLUTION

Pollution[6] may harm the health of the local population, as well as animals, plants and the land itself, which may lead to cleanup costs, increased expenses related to ongoing monitoring and regulatory compliance, fines, employee and community health concerns, delays in production, and reputational and litigation risk. Increased consumer focus on production and waste, for example from plastics, may reduce demand for products; enterprises perceived to be significant contributors to waste and pollution may face both diminished demand and increasingly onerous environmental restrictions. However, these trends may create market opportunities for enterprises selling products or services related to recycling and reuse or for less-polluting competitors.

Enterprises with operations that generate pollutants and hazardous and non-hazardous waste, manufacture products that may create material cleanup concerns, or require significant amounts of packaging generally have more inherent risk exposure than those that do not, particularly if more environmentally friendly alternatives exist. Relevant considerations may include how much pollution and waste the issuer creates, its compliance with waste disposal and pollution regulations, its use of recycled content and renewable sources in production, sales of reusable products and history of spills, contamination, waste and pollution-related violations, fines and settlements.

To help offset risk exposure, entities may enact and execute policies that reduce waste and pollution, including through waste control and treatment technologies, packaging efficiency and increased recycling, as well as to ensure regulatory compliance. Some entities may benefit from new market opportunities related to customer demand.

NATURAL CAPITAL

An enterprise's level of reliance on the natural environment to provide goods and services generally indicates its exposure to natural capital risk. Damage to the ecosystem caused by enterprises can lead to a loss of revenue, consumer backlash, increased environmental compliance costs and regulatory penalties. Damage from and costs to avoid pollutants released into the air and soil are captured in the waste and pollution category. An enterprise with more reliance on land, air or marine resources, or one that operates within protected areas or habitats of endangered species would be more affected by degradation of the environment caused by the enterprise itself or an external party. Extractive industries such as mining may

6 This category includes greenhouse gases that have been regulated as pollutants independent of their contribution to global warming and therefore excludes carbon dioxide and methane emissions. Water pollution considerations are covered in the water management category.

damage the land, soil or forest through the course of operations, creating potential risks related to land reclamation and land governance (although the mineral itself is not part of natural capital).

Significantly altering the natural environment could lead to penalties, lower future revenue and cleanup and restoration expenses. An extensive history of environmental regulation, enforcement actions, fines and settlements, and large asset retirement obligations related to cleanup and restoration may indicate high risk exposure. We may also consider whether an abundance of sustainable natural capital confers a material advantage.

Preventive measures, effective policies and corrective actions taken to ensure compliance with restrictions and regulations, as well as to minimize adverse ecological effects, may help to offset credit risk. Some entities may mitigate exposure or benefit by producing products that maintain or restore biodiversity.

Arriving at the E IPS

To arrive at an issuer environmental IPS, we typically place the most emphasis on the worst category score. Where risks are additive, we may assign an IPS that is worse than the worst category score. However, in assigning the IPS we also consider the unique characteristics and circumstances of an enterprise, and the interplay and potential correlation among categories. This may lead to assigning a better IPS score than suggested by the worst category score.

Social Issuer Profile

For an enterprise, social risks and opportunities typically stem from an enterprise's interaction with employees, customers, supply chain partners, counterparties, other core stakeholders and society at large. Social issues generally affect credit quality through reputational, operational and policy or regulatory channels, or through litigation.

In the sections below, we describe the principal credit implications from social considerations for enterprises.

CUSTOMER RELATIONS

The perceived fairness and integrity of an enterprise's customer interactions may have meaningful consequences for its earnings. The importance of brand perception may indicate inherent exposure to issues related to the enterprise's reputation. Reputational impact on customer relations may stem from a variety of sources, for example product safety or hiring practices, that relate to other social risk categories.

Information security is another critical aspect of customer relations. Data breaches may result in fines, reputational damage and loss of market share. An enterprise that stores significant amounts of personal data or confidential information may have greater potential risk exposure. For these issuers, a track record for maintaining the integrity of its information technology and other storage systems to protect customer data and confidential information, along with related policies and the composition and strength of dedicated information security staff, may be relevant characteristics.

Regulatory restrictions on sales or marketing, tax increases, fines and litigation, can reduce revenue or increase costs. Regulations or pressure from regulators or governmental organizations may also limit an enterprise's pricing flexibility, and pricing perceived as unfair or discriminatory may lead to fines and loss of market share. Issuers may gain a competitive advantage or face disadvantages due to their relative ability to comply with regulations. Customer retention may be a relevant consideration.

Legal exposure related to pricing, or poor labeling or disclosure, may result in reputational risk that weakens sales. Some industries face more onerous disclosure regulations, for example because of greater potential health and safety implications for consumers. Relevant considerations may include the pervasiveness and severity of complaints as well as fines and lawsuits.

Geographic or operational diversity, robust IT systems and a strong framework for ensuring data security, as well as compliance with relevant regulations, may help entities offset potential customer relations risks. The ability to quickly adapt to changing consumer preferences may also offset risk or create competitive advantage.

HUMAN CAPITAL

The presence of unfavorable labor relations and rigid workforce provisions, as well as reliance on specialized skills, may indicate inherent exposure to labor relations risk. An inability to reduce staff and costs during an industry or economic downturn, rising compensation and benefits costs to attract scarce talent, challenges in attracting and retaining people with required skills, or a loss of productivity due to strikes may negatively affect earnings. External or internal perceptions of a lack of diversity or a hostile culture may lead to reduced productivity or lawsuits or may hurt an enterprise's ability to attract employees. Relevant considerations may include the impact of working days lost due to strikes, employee lawsuits, or fines related to labor regulations, as well as an enterprise's track record of successfully negotiating and renewing wage and benefits agreements and its relationship with unions or work councils.

Adherence to collective wage agreement, effective negotiations with employee representatives on working conditions and a strong monitoring framework to ensure compliance may minimize disputes and disruptive actions. Outreach to and partnerships with educational institutions may facilitate a dependable supply of workers. Diverse and inclusive hiring and promotion policies may facilitate a diverse and inclusive workplace, which may attract talent.

DEMOGRAPHIC AND SOCIETAL TRENDS

Changing demographics and consumer preferences and societal trends, as well as government policy agendas and funding, may affect an enterprise's revenue and earnings.

An enterprise's reliance on a narrow or shrinking demographic base for sales may indicate inherent risk exposure, whereas an issuer may benefit from sales to a sector of the population that is growing. Some products or services, for example education, medicine and medical care, or utilities, may be more vulnerable to consumer activism and societal or governmental pressure than other sectors, because access to these products and services at an affordable price has broad ramifications to social cohesion. Entities in regulated sectors may be particularly exposed to socially driven policy agendas that can significantly change their business and finances, and enterprises that rely on government funding may also have more exposure. Regulatory and legislative changes may advantage or disadvantage entities based on societal trends, such as pricing scrutiny.

Demand or access to capital may decline for enterprises that sell products or services misaligned with social expectations in their markets, particularly where a highly visible product affects public perception of the enterprise. Customer awareness of an organization's business practices, as well as its products or service, may also influence demand and public perception. Topics relevant to our analysis may include revenue and earnings by product line, geography, and age group using the product or service.

Geographic and product diversity as well as an ability to quickly adapt to consumer preferences, regulatory changes and societal trends may help mitigate risk or lead to competitive advantages.

HEALTH AND SAFETY

Health and safety issues are related to the work environments that entities create for their employees and contractors.[7] These conditions are important because accidents may generate negative publicity and disrupt operations. Regulatory pressure may result in higher costs or sustained downtime, and potentially unsafe environments may lead to increased labor costs, labor shortages and necessary investment in training and the physical workspace to create safer conditions.

Enterprises in industries that involve heavy equipment and machinery, handling of hazardous materials, and dangerous operating conditions generally have higher exposure to health and safety risk than, for example, an enterprise that relies on knowledge workers. Relevant considerations may include fatality and injury rates and working hours lost due to employee safety, as well as regulatory interventions and fines related to safety failings. The credit implications of a health and safety violation may depend on the location of the operations, so geographical distribution of employees may be a relevant consideration for some issuers.

Entities may offset risk exposure, for example, through compliance with regulations, by fostering a safety-conscious culture supported by employee training and rigorous policies, or through advances in technology and monitoring equipment. Societies generally expect employers to maintain a safe workplace, so its health and safety practices are important to credit profiles; however, an extremely safe workplace is unlikely to confer material credit benefits. As a result, a score of 1 for this consideration is very unusual.

RESPONSIBLE PRODUCTION

Responsible production incorporates the risks and opportunities of how an enterprise manages its production processes and supply chain or delivery of services. These risks include the potential impact of product failures, recalls or contaminations, as well as from supply chain practices such as human rights controversies and violations. Product failures may lead to a damaged reputation with suppliers and regulators, fines and lawsuits, or additional costs (e.g., remediation or retooling of production), whereas a well-established reputation for consistently high product quality may create a competitive advantage. The complexity and potential harm related to the end use of a product or service may indicate inherent risk exposure, and an enterprise's adherence to manufacturing standards may be a relevant consideration.

Supply chain weaknesses can lead to supply disruption, increased costs or reputational damage, making an enterprise's framework for vetting and managing suppliers, as well as the diversity, resilience, reputation, and cost efficiency of its suppliers relevant considerations. This is especially the case for entities with complex supply chains. Legal frameworks in jurisdictions of key operations may also be important, and entities whose products and service are complex or viewed by countries as critically important may have greater exposure to risks related to responsible production.

Entities may depend on the communities in which they operate for their workforce, so their engagement with those communities may affect their ability to attract and retain employees as well as their revenue. For some entities, there may be a governmental expectation to support citizens during a downturn, leading to higher costs or lower revenue. Poor relationships can hinder greenfield investment projects, raising potential execution challenges (e.g., lengthier consultation processes or settlement costs). Statements from community leaders, the effectiveness of an enterprise's media strategy, evidence of stakeholder engagement policies, and the severity and persistence of negative publicity or governmental hearings and investigations may be relevant considerations.

7 We consider health and safety issues that affect the community in which an entity operates under responsible production.

Concerns about the legality and social acceptability of dealings with suppliers that may be involved with human rights controversies and violations may damage the enterprise's standing among external constituents, potentially leading to loss of contracts related to non-compliance, fines, or criminal charges or convictions. Relevant considerations may include an enterprise's internal compliance systems and the stringency of its oversight measures. For some entities, the severity or pervasiveness of allegations and lawsuits may indicate high risk exposure.

Entities may be able to mitigate exposure through diversification of the supplier base to ensure alternative suppliers in case of supply disruptions or disputes. Positive community relationships and comprehensive due diligence that considers potentially meaningful positive and negative effects of new investment decisions on the community or region may help to offset risk and for some enterprises may enhance their reputation, which may lead to credit benefits. For example, an enterprise could upgrade existing production facilities to minimize the impact of contamination.

Arriving at the S IPS

To arrive at an issuer social IPS, we typically place the most emphasis on the worst category score. Where risks are additive, we may assign an IPS that is worse than the worst risk category score. It is unlikely that lower exposure in one category will meaningfully offset the worst risk category score. However, in assigning the IPS we also consider the unique characteristics and circumstances of an enterprise, and the interplay and potential correlation among categories. This may lead to assigning a better IPS score than suggested by the worst category score.

Governance Issuer Profile

Governance risk tends to be issuer-driven, compared with environmental and social risks, which may be driven by external factors and often have a sector-wide impact. Governance can support or erode credit quality for all enterprises, and governance considerations are incorporated into many of our sector rating methodologies.[8] Weak board governance or executive management can result in a flawed operating strategy or an inability to execute business plans effectively. Serious governance failures can lead to severe reputational and financial risks, including increased debt-financing costs or loss of access to capital markets. Governance considerations may also be credit positive. For example, strong internal controls may help to offset a broad variety of other risks, including ESG risks. Strong structural features and well-defined contracts of a project financing may also mitigate many of these risks.

The strength of institutions or rule of law incorporated in our assessment of a sovereign's governance may be an indicator of governance standards in those jurisdictions, and issuers operating in sovereigns with weaker governance standards may themselves exhibit lower governance standards. However, the G IPS of a sovereign does not directly constrain the G IPS of enterprises with operations in that country. Where there is a lack of disclosure, it may, but not always, indicate governance risk, and we would typically consider the level of disclosure relative to regional peers and local requirements and whether less disclosure indicates information gaps.

In the sections below, we describe the principal credit implications from governance considerations for enterprises.

[8] A link to a list of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

For some categories, including for Compliance and Reporting and for Board Structure, Policies and Procedures, we may use quantitative indicators[9] based on public data, as a starting point for our qualitative assessment. The indicative scores are based on a defined set of questions using data sourced from public filings and can only be obtained for issuers where the set of questions is applicable and the related data are available. We may also use nonpublic information. For Financial Strategy and Risk Management, we may use factor scores from our sector scorecards as a starting point for our qualitative assessment. [10]

FINANCIAL STRATEGY AND RISK MANAGEMENT

Financial strategy and risk management reflect the board and management's tolerance for risk, which often directly affects debt levels, the future direction for the enterprise and the risk of adverse changes in financing and capital structure.

Relevant considerations may include an issuer's desired capital structure or targeted credit profile, its dividend policy, and its history of prior actions related to financial strategy and risk management, including its track record of risk and liquidity management and whether it has consistently maintained its targeted capital structure. In some cases, a highly covenanted financial structure explicitly limits leverage and requires key risks to be hedged or insured, and the terms of key debt agreements may be relevant considerations. A commitment to a conservative credit profile and strong liquidity may support financial flexibility that benefits creditors. On the other hand, an aggressive focus on shareholders at the expense of creditors may indicate high risk tolerance. For example, the private equity business model typically involves an aggressive financial policy and a highly leveraged capital structure to extract value. The sponsor's track record of dividends may be a relevant consideration for these enterprises.

How management uses cash during different economic and industry cycles and responds to key events such as changes in financial markets, legal actions, competitive challenges or regulatory pressure may indicate risk exposure. For some entities, management's M&A strategy, including the frequency and materiality of acquisitions, how they are financed, or the objective of the transactions (e.g., maintaining core competency or shifting to new business) may be relevant. The issuer's record for enterprise risk management, including operational and commodity risks, may also be relevant, particularly for entities with significant exposure to commodity risk (e.g., energy and mining companies).

MANAGEMENT CREDIBILITY AND TRACK RECORD

The credibility and track record of management[11] helps inform our opinion of its ability to achieve its target credit profile and operational goals and may provide insight into likely future performance, including in stressed situations.

Relevant considerations include management's track record for meeting, surpassing or missing public and private guidance, including during periods of market fluctuations, and variability of operating results. An organization that consistently provides and meets its guidance, maintains its target credit profile during downturns, and anticipates and adapts to evolving business or market conditions generally has a track record that that supports greater management credibility than one that does not provide any guidance or frequently misses its guidance. Guidance may include financial forecasts as well as key performance indicators related to the enterprise's industry (e.g., subscriber trends, units sold).

[9] Please see Appendix 3 for more information about how we arrive at indicative scores to inform our qualitative assessment for Board Structure, Policies and Procedures and for Compliance and Reporting. The indicative scores are based on a defined set of questions using data sourced from public filings.

[10] As a starting point to inform our qualitative analysis, where available we map Financial Policy factor scores of Aaa to A to 1; Baa to 2; Ba to 3; B to 4; and Caa, Ca and C to 5.

[11] For private-equity-owned enterprises, the track record and credibility of the sponsor, who, for example, may change the enterprise's management or its goals in a way that is deleterious to creditors or may provide effective oversight, operational expertise or an ability to cut costs, may be a relevant consideration. For project financings, we typically consider the experience and credit quality of the operator and the commitment of both sponsor and operator to the project.

Significant shifts in strategy, for example entering a new business line or geographic region where management has limited experience, can increase risk. Contractual limitations on an issuer's permitted businesses can help to mitigate this risk.

Consistent achievement of synergies from business integration and a successful strategy for and execution on M&A may indicate the ability to manage risk effectively or gain benefits from future transactions, whereas a weak track record of achieving synergies, poor execution on M&A and an aggressive risk appetite may suggest higher risk exposure. Management's ability to pivot in response to industry and market conditions, or its failure to do so, may be a relevant consideration. High executive turnover or, in some cases, failure to remove top management despite weak performance, may point to governance risk. Dependence on one individual or a group of executives can pose risk to management credibility, because that loss of key people could adversely impact operations, especially in the absence of a succession plan.

For some enterprises, success in managing regulatory relationships may be a relevant consideration, particularly where a sector or issuer may be a target of scrutiny from politicians or requires permits for successful operations. Where entities outsource operations or rely on support from partners or governments, the internal process for choosing partners and management's track record of and strategy for stepping in to support an initiative may be a relevant consideration.

ORGANIZATIONAL STRUCTURE

Organizational structure is unlikely to materially improve the credit profile of an enterprise, but may create risk if, for example, financial engineering or significant cross-shareholdings or frequent changes in organizational structure obscure performance or create conflicts of interest. Complexity by itself does not necessarily create credit risk, but a complex structure with, for example, multiple holding companies and joint ventures may allow for the transfer of funds at the expense of creditors or may indicate overly aggressive tax strategies. For example, an ownership structure that blurs the financial separation of entities within the organization can lead to relationships between parents and subsidiaries, or governments and their associated enterprises, that lack protection from restricted payments covenants, which may expose creditors to cash leakage. Parent or holding companies with multiple subsidiaries that also hold voting rights in the parent or other subsidiaries or that can directly or indirectly transfer financial obligations to other subsidiaries may create risk. Reliance on minority holdings or joint ventures to support earnings can limit earnings predictability. Legal ownership structures such as master limited partnerships or real estate investment trusts may incentivize the distribution of profits to equity holders rather than for debt reduction.

Relationships between parents and subsidiaries, related party transactions, agreements (e.g., bond indentures, credit agreements) governing the flow of funds between entities within an organization, and the presence, structure and purpose of joint ventures and special purpose vehicles may be relevant considerations for some enterprises. Clear contractual allocation of risks between lenders, owners and contractors is often an important strength of project finance structures.

COMPLIANCE AND REPORTING

The timeliness and accuracy of required disclosures are important because, for example, a qualified audit opinion may indicate higher exposure to governance risk that could result in a potential default under debt agreements. Regulatory or legal actions or investigations may result in fines and management distraction, as well as reputational risk.

Considerations relevant to our assessment may include the timeliness, transparency and comprehensiveness of financial statements, restatements of financial data, whether audit opinions are qualified or non-qualified, frequent changes in auditors, and any auditor comments regarding the quality of internal controls. In assessing the materiality of legal actions we may consider whether a judgment or penalty is likely to affect

an issuer's access to capital markets, its competitive position or reputation, and the magnitude and level of management involvement. For all compliance and reporting risks, we may also assess the likely efficacy of corrective measures and the likely timeline to resolution. Dismissal of top management for cause (related to compliance and reporting issues) may point to weak governance.

BOARD STRUCTURE, POLICIES AND PROCEDURES

Board oversight and effectiveness are important because boards generally perform a critical role in the oversight of risk management, including setting and monitoring a firm's risk appetite and the risk management framework of the enterprise.

Ownership by hedge funds or activist investors may in some cases be detrimental to an enterprise's credit profile if it leads to a strategic change that favors equity holders over creditors. Ownership by private equity typically indicates a shareholder-friendly, rather than creditor-friendly, structure, which typically increases risk tolerance. Government-owned and affiliated enterprises may face a different set of priorities. Competing priorities could increase risk, for example by encouraging the enterprise to fund or subsidize other public policy goals that are not aligned with creditor interests. On the other hand, enterprises that fulfill a government policy mandate or provide vital services (e.g., healthcare, education) may benefit from additional governance oversight, early intervention and ongoing support.

The design, disclosure and oversight of management compensation (which is typically set by the board) may also affect the enterprise's credit profile, depending on the incentives (e.g., short-term or long-term incentives). For example, pay and compensation structures not aligned with sustainable operating performance or excessive compensation plans that incentivize short-term outcomes, such as aggressive growth, over a stable credit profile may encourage excessive risk-taking that negatively impacts creditors. Director independence, levels of relevant experience, succession planning, board turnover and diversity may be relevant considerations when assessing overall board oversight.

Arriving at the G IPS

Risk categories of the G component may be additive, as is the case for the E and S components. However, given the nature of good governance as a potential material strength, some related risk categories (e.g., financial strategy and risk management or management credibility and track record) could offset other governance categories of risks. As a result, we may assign a better G IPS than suggested by the worst category score.

Assessing the Credit Impact Score

As discussed in Appendix B, the CIS explains the impact of ESG considerations in the context of the other credit drivers that are material to the enterprise's rating. The CIS score indicates the extent, if any, to which the rating of an issuer would likely be different if exposure to ESG risks did not exist.

Credit factors that may help to offset ESG exposure for enterprises include, for example, strong liquidity and good access to capital, or external support (e.g., from affiliates or governments) that we believe will allow the issuer to manage E, S and G risks. Examples of non-ESG-related credit weaknesses that may be relatively more prominent, resulting in a high IPS and a low CIS, include constraints related to the country of primary operations, as reflected in the sovereign rating and country ceiling, or a liquidity shortfall not directly related to its E, S or G exposure.

Proposed Appendix 2 – Enterprise Compendium: General Considerations and Indicators

Please click here to access a compendium document that provides a description of the types of considerations and indicators that may be generally relevant across enterprise sectors for informing our assessment of E, S and G risk categories and assigning IPSs for enterprises

Proposed Appendix 3 – Board Structure, Policies and Procedures and Compliance and Reporting Indicative Scores

Please click here to access a description of how we arrive at indicative scores to inform our qualitative assessment for Board Structure, Policies and Procedures and for Compliance and Reporting. The indicative scores are based on a defined set of questions using data sourced from public filings.

Moody's Related Publications

Cross-sector credit rating methodologies are typically applied in tandem with sector credit rating methodologies, but in certain circumstances may be the basis for assigning credit ratings. A list of sector and cross-sector credit rating methodologies can be found here.

For data summarizing the historical robustness and predictive power of credit ratings, please click here.

For further information, please refer to *Rating Symbols and Definitions*, which is available here.

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