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ESG Risk Considerations in Project Finance Credit Risk

This document provides considerations regarding the credit implications of environmental, social and governance (ESG) factors in the application of Scope's methodology for the rating of all types of infrastructure and project finance vehicles and instruments, referred to generally throughout this document as *project finance credit exposures*. This document consequently requires reference to the General Project Finance Rating Methodology, available at www.scoperatings.com.

ESG factors applied to project finance credit exposures

We consider ESG factors when relevant for our project finance credit rating analysis. Investors seeking to use ESG guidelines in their strategies are generally aware that the inclusion of ESG in the credit analysis would not replace the use of ESG ratings as part of such strategies.

Our credit analysis under the General Project Finance Rating Methodology is based on fundamental credit risk analysis. In particular, our methodology focuses on estimating the expected loss for the investor in a debt instrument secured by infrastructure or other business operations linked to a real asset.

This document highlights the diverse ways in which ESG factors may influence the different analytical elements defined under our methodology: the 23 risk factors, the four recovery-risk factors, and the estimation of recovery rates. Therefore, ESG factors may have a positive or negative influence in the expected credit performance of the instrument under analysis.

Environmental and sustainability (E)

Our credit analysis includes the following major environmental (E) constituents: environmental pollution and sustainability. Environmental pollution is analysed by determining the risk that the project's main activity causes environmental damage via chemical, noise or light pollution and whether the project itself entails economic costs that may impair credit performance. For example, an outdated technology that may lead to oil leaks into the ocean would be credit-negative as the environmental damage is more likely to result in indemnity payments, fines, litigation or reputational risks. Vice versa, innovative and environmentally friendly technologies may positively impact the credit risk profile. We do not consider carbon dioxide to be a major environmental pollutant, but consider emission certificates trading and the risk of fines and carbon taxes among the economic risks of the project.

Social (S)

Major social (S) elements (e.g. human rights, employee rights, customer rights or management of key contractors) are possible sources of impairment risk that we consider in the analysis. The social-elements aspect relates to indirect credit-related effects on the project's economic performance, typically on the demand component. The human-rights constituent takes into account the project's impacts on local communities. For example, a toll road built through a historic site of an existing indigenous population could inflict permanent damage on the local community and/or lead to social protests. This would be credit-negative due to its potential to undermine the project's economic performance. Notably, modifying such a project by increasing capital expenditure would also be credit-negative due to its potential adverse impacts on the project's economic costs and credit performance.

Project Finance



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Related Methodologies

General Project Finance Rating Methodology November 2019

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The employee-rights constituent considers how the project company (SPV) treats its employees, whether the SPV conforms to local employment legislation, and how well the local legislation conforms to standards defined in developed countries. The customerrights constituent considers whether customer rights are observed in accordance with local legislation, the quality of product or service offered by the SPV, non-discrimination of customers, and pricing. For example, we consider it credit-negative when an SPV builds fibre-optic infrastructure to offer data access to customers at prices that exceed those on the local market, because the project is likely to face opposition, eventually reducing tariffs. Vice versa, if the SPV manages its investment and operational costs effectively and can offer the product at a lower price than competitors, it is credit-positive. Management of key contractors is related to the EPC, O&M, off-taker, supplier and other key contracts of the project. An SPV that transacts at arm's length and appoints companies with good ESG practices is considered credit-positive.

Governance (G)

We view the governance (G) constituent as follows: good governance and management practices, transparency, and legal practices. The analysis of management practices includes aspects such as conflicts of interest, especially regarding remuneration of SPV board members, SPV shareholder voting rights, employee incentives, and interaction with local authorities. For example, credit-negative would be an SPV that appoints to the board a relative who works in local government and assigns this person an unusually high salary. Vice versa, a board member who is a professional found on the open labour market would be positive for the credit. The transparency constituent includes transparent accounting and reporting methods that enable investors and authorities to monitor and control the SPV. The legal-practices constituent examines whether the SPV acts according to best legal practice and aims to prevent illegal activity. For example, antimafia provisions in key project agreements is credit-positive, whereas an absence of this is credit-negative if the project operates in a region where mafia interference is common.

It is important to highlight that credit ratings do not address the risk of criminal activity but rather the ability and willingness to fulfil contractual financial obligations. The absence of illegality is an assumption generally supported by the legal opinions available for the benefit of investors.

ESG factors' influence on project finance credit exposures

ESG factors are relevant for 18 out of the 23 risk factors defined in the General Project Finance Rating methodology (see Figure 1) and thus may be a factor that drives a credit rating change. We do not have a prescriptive rule for changing a rating based on ESG factors alone; instead our analysis of the individual risk factors will drive the final rating.

Figure 1: Project finance risk factor guidelines and the ESG factors

Risk factor	ESG considerations
Sponsor risk	E, S and G factors are included through the sponsor's credit risk, experience, track record, and commitment to the project. Good ESG practices lead to higher sponsor credit quality and lower sponsor risk. Commitment to the project and higher share maintenance translate into better E and S compliance. Good experience and track records are associated with higher E, S and G standards.
Construction complexity, permits, design and technology	Mainly E and S factors are included through the complexity of construction works, permits and licences, title and access to the project site, regulatory and public opposition, site conditions, technology and design. E and S add complexity to construction works and technological design but are credit-positive if the construction solution mitigates E and S risks. Permits and licences, the project's site access, as well as regulatory and public opposition depend on how well the SPV integrates E and S factors in its main activities. Site conditions may improve or worsen depending on how well the SPV observes E and S best practice.
Construction contracts, budgets and schedule	E and S factors are included in construction contract pricing and timing, as well as defect liability periods and warranties. If E and S requirements are included in the contract they may influence both timing and pricing. Stronger E and S requirements may be credit-positive but may lead to higher costs and longer construction times. Properly constructed projects should pose lower E and S risks and are therefore credit-positive.
Construction funding and liquidity package	No significant relations to E, S or G.
Counterparty risk	Includes E, S and G through the contractor's credit quality, technical capabilities, experience and track record. Includes E and S mainly through economic incentives if they are incorporated in contracts and the existence of viable alternative contractors if enough ESG compliant contractors are present on the market. Counterparty risk may include E if the SPV chooses strategic contractors with higher E standards. e.g. economic incentives to be E and S compliant are credit-positive.
Equity contribution risk	Includes mainly E and S with some G through exposures to the project and the guarantor's credit quality. A higher exposure to an important project should support E and S and hence support the credit rating. Guarantors with higher ESG standards would have better credit ratings.
Operational complexity, technology and standing	Includes mainly E and S through the nature of operating activities, technology and design. Higher E and S standards may increase operational complexity, technology and design and thus have a mixed effect on the credit quality. If higher E and S standards do not lead to significantly complicated design, they are credit-positive.
Operations and maintenance (O&M) contracts, budgets and planning	May include E, S and G through the replacement of non-performance contract clauses and SPV management. Non-performance clauses may include requirements on ESG standards. SPV management may be assessed on ESG dimensions. Management complying with higher ESG standards is credit-positive. May also include S through contract pricing and length, as well as budget and schedule assumptions similar to those in construction contracts. Higher ESG standards may be credit-positive if they do not overcomplicate the project and do not involve higher costs that offset the positive effects.
Lifecycle risk	May include E and S through budget and schedule assumptions if ESG is included in O&M contracts.
Counterparty risk	Includes E, S and G through credit quality, technical capabilities, experience and track record similar to an EPC contractor's. May also include E if SPV/sponsors prefer an O&M contractor with higher E standards, which should be credit-positive.
Revenue contracts	May include E, S and G through the term, price, volume risks, contract-outs and termination, adverse regulatory and/or political changes, regulatory framework, and the probability of adverse regulatory changes. Customers of the SPV's main project may prefer ESG-compliant products, thus making ESG compliance credit-positive. Termination provisions may include ESG-related conditions, which may be credit-positive. Regulatory and political changes may impose stricter ESG requirements that may be credit-negative if the SPV does not comply with them.



ESG Risk Considerations in Project Finance Credit Risk

Economic fundamentals	Includes mainly E, S and sometimes G through competitive advantage, demand and supply balance, barriers to entry, long-term market outlook, project rationale, participants, and alignment of interests. Compliance with ESG standards may increase competitive advantage, support demand, increase barriers to entry, improve project rationale and thus be credit-positive. Participants' alignment of interests may improve when all apply higher ESG requirements and choose strategic partners based on these.
Supply or reserve risk	May include E and S through supply agreement terms, price, quality and delivery, supply interruption and force majeure, as well as contract-outs and termination. Supply may be interrupted, too expensive and/or deficient if the supplier disregards ESG requirements. Contract-outs and termination clauses that contain ESG factors may have a positive credit effect.
Counterparty risk (suppliers)	Includes E, S and G through the credit quality and track record of a supplier similar to those of EPC or O&M contractors. E and S are included through fit to contractor business models if the counterparty aligns its business model with ESG factors. It should be credit-positive for the project in such cases.
Counterparty risk (offtaker)	Includes E, S and G through the credit quality and track record of an offtaker, similar to EPC or O&M contractors. E and S are included through fit to contractor business models if the counterparty aligns its business model with ESG factors. It should be credit-positive for the project in such cases.
Debt repayment	No significant relations to E, S or G.
Cash flow stress scenarios	May include E, S and G through the resilience to cash flow stresses. If the project is fined for ESG non-compliance it may be credit-negative.
Inflation, interest rate and foreign exchange risks	No significant relations to E, S or G.
Refinancing risk	May include E, S and G through credit strength and cash flow projections at the point of refinancing, leverage at the point of refinancing, debt payback period (after refinancing), financial covenants, as well as financial markets forecasts. If the SPV is not ESG compliant it may decrease its chances of refinancing, decrease its cash flows, increase leverage at refinancing, or violate financial covenants. Financial market forecasts may be negative for companies that do not comply with ESG.
Counterparty risk (includes account banks, parties to interest rate, inflation and currency swaps, other hedging instruments	May include E, S and G through the credit quality and track record of a financial counterparty. Similar to ESG factors applied to EPC and O&M contractors.
and derivative product providers)	
	May include mainly G through cash-controlling covenants, as well as legal and regulatory compliance. Cash-controlling covenants that include ESG factors may lead to additional credit risks but at the same time mitigate the risk of ESG violation by the SPV. Legal and regulatory compliance may include ESG factors with similar effects.
and derivative product providers) Financing and legal framework,	compliance. Cash-controlling covenants that include ESG factors may lead to additional credit risks but at the same time mitigate the risk of ESG violation by the SPV. Legal and regulatory



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