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Methodology: Project Finance Companies

Updated July 2024

Executive Summary

This publication presents FiinRatings' methodology for assigning Project Finance Rating in Vietnam and is intended as a general guidance to help companies, investors and other market participants to understand how FiinRatings looks at quantitative and qualitative factors in explaining rating outcomes.

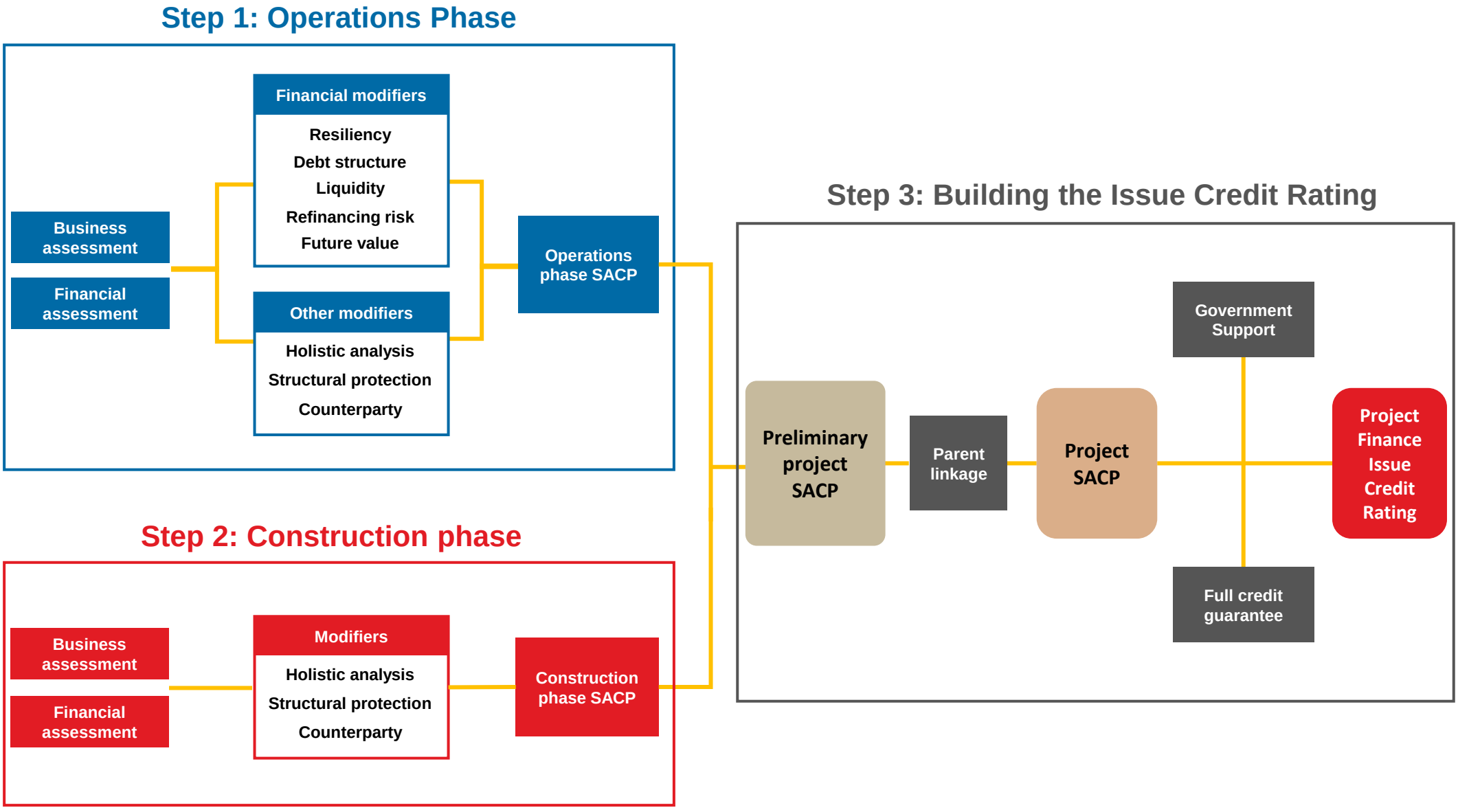
- The criteria organise the analytical process according to a common framework and articulate the steps in developing the stand-alone credit profile (SACP) and project finance rating in accordance with international standards.
- FiinRatings uses a principle-based approach for assigning and monitoring ratings nationally, which is in accordance with international standards. These broad principles apply generally to ratings of all types of projects and asset classes. However, for certain types of projects, FiinRatings complements these principles with specific methodologies and assumptions.
- FiinRatings assigns credit ratings to projects and strives to maintain comparability of ratings across sectors and over time. That is, FiinRatings intends for each rating symbol to connote the same general level of creditworthiness for issuers and issues in different sectors and at different times nationally.
- FiinRatings' approach to project finance rating involves a comprehensive assessment of several parameters. Some core parameters are considered to have a high influence on the credit quality of a project finance company, while others are considered supplementary parameters. FiinRatings takes a forward-looking view of the performance of the projects on these parameters while evaluating its rating.
- If you have any questions or concerns, please contact our Customer Support Team at https://fiingroup.vn/ContactUs, or email fiinratings@fiingroup.vn.

Attributes of Project Finance Transaction

Project Finance is a technique used to finance certain capital-intensive assets. Transactions involve one or more LPEs that collectively undertake the construction and/or operations of an asset or set of assets.

Attributes	Description
Limited Purpose Entity (LPE)	Bankruptcy-remote entity to build and/or operate the project. Purpose is limited to activities necessary for the project. The LPE is separated from its parents to limit its exposure to the parent's creditworthiness.
Security	A security package that gives lenders a right to the project's cash flows and assets. Project assets include physical assets, permits, agreements, accounts, and equity.
Economic Life	A single asset or a portfolio that has a determinable economic life. Portfolios are typically closed; an open portfolio that may change over time would have to be subject to specific conditions, including eligibility, covenants, or confirmation that project creditworthiness is not impaired.
Covenants	A covenant package that ensures creditors will not be disadvantaged by the future actions of third parties.
Waterfall	A cash management structure that includes a waterfall that prioritizes the payment of senior debt service after maintaining ongoing operations, as well as liquidity mechanisms that preserve cash in support of the senior debt service ahead of other project obligations and distributions.
Controlling Stake	A controlling stake in the assets via the debt-issuing LPE's majority ownership or shareholder agreement (or, if the issuer does not have a controlling stake, its affirmative vote is required to approve major decisions).
Revenue Risk	Exposure to revenue risk as well as either construction or operating risk because the ability to service debt depends on future cash flows generated by the project assets.

Project Finance Criteria Framework



Step 1:

Operations Phase

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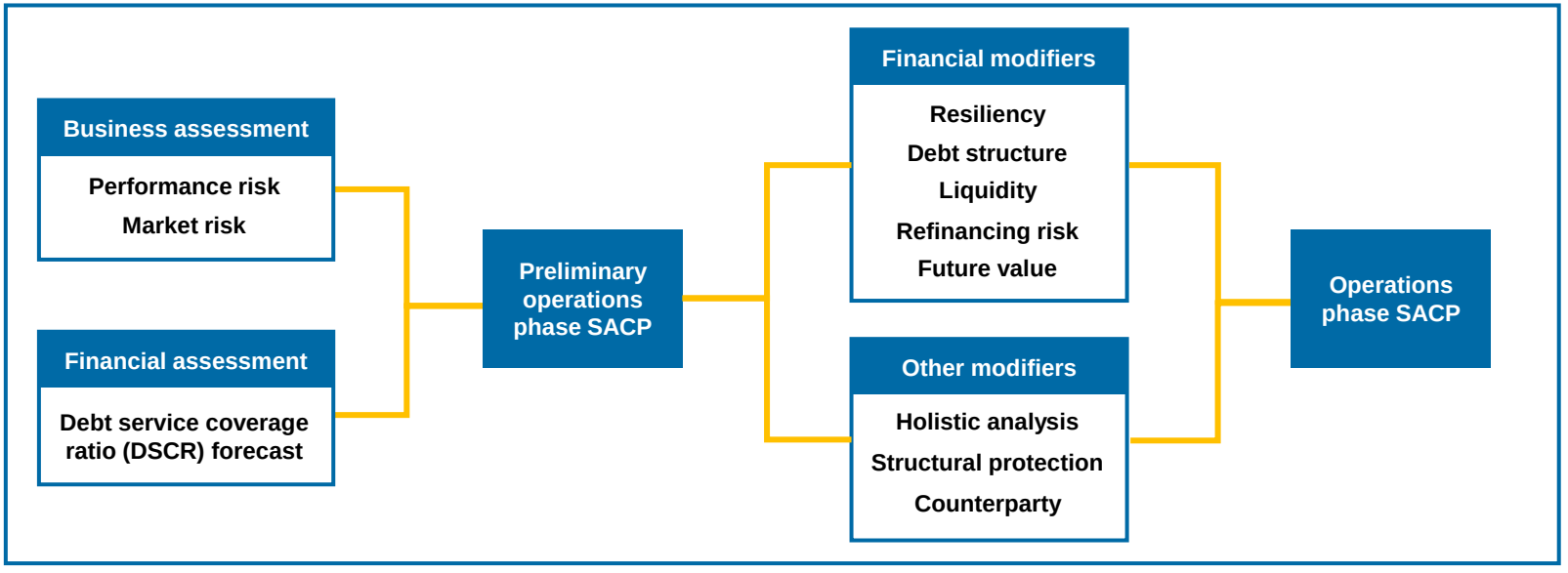
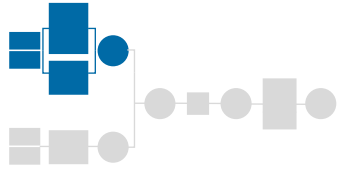
Step 1: Operations Phase: Operations Phase Stand-Alone Credit Profile

We combine the project's **business** and **financial risk** to derive the **preliminary operations phase SACP**, which will then be modified by **8 modifiers** to identify the **operations phase SACP**.



Criteria framework map

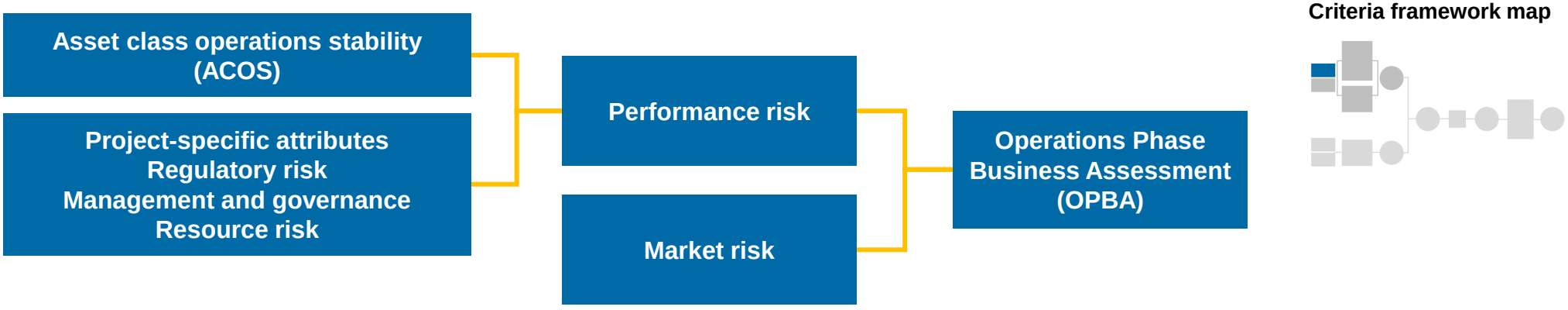


Determining the preliminary operations phase SACP

		Financial Assessment (minimum DCSR range)				
		AA	A	BBB	BB	B
Operations Phase Business Assessment (OPBA)	1	≥ 1.75	1.75-1.20	1.20-1.10	1.10-1.05	<1.05
	2	N/A	≥ 1.40	1.40-1.175	1.175- 1.10	<1.10
	3	N/A	≥ 1.75	1.75-1.30	1.30-1.15	<1.15
	4	N/A	≥ 2.50	2.50-1.60	1.60-1.35	<1.35
	5	N/A	≥ 5.00	5.00-2.50	2.50-1.50	<1.50
	6	N/A	N/A	N/A	≥3.00	<3.00

Step 1: Operations Phase: Operations Phase Business Assessment (OPBA)

The **operations phase business assessment (OPBA)** is derived from our assessment of the risks that typically affect the variability and size of a project's cash flows, including **Performance risk** and **Market risk**.

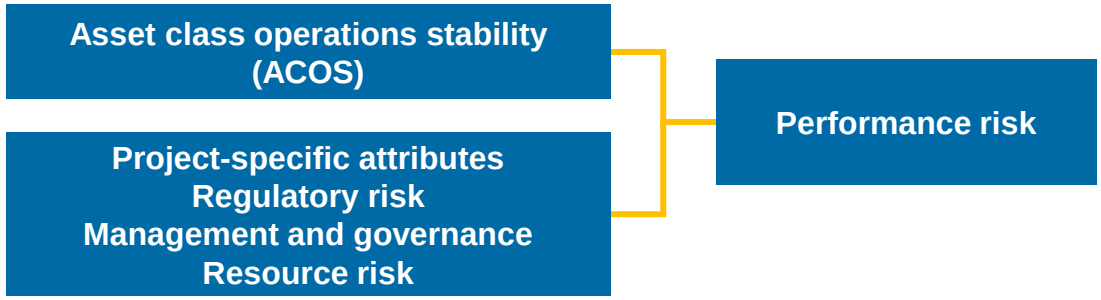


Determining the operations phase business assessment (OPBA)

PERFORMANCE RISK	MARKET RISK					
	1	2	3	4	5	6
1	Very low risk	Low risk	Intermediate risk	Moderately high risk	High risk	Very high risk
2	Low risk	Low risk	Intermediate risk	Moderately high risk	High risk	Very high risk
3	Low risk	Intermediate risk	Intermediate risk	Moderately high risk	High risk	Very high risk
4	Intermediate risk	Intermediate risk	Moderately high risk	Moderately high risk	High risk	Very high risk
5	Moderately high risk	Moderately high risk	High risk	High risk	Very high risk	Very high risk
6	High risk	High risk	High risk	Very high risk	Very high risk	Very high risk

Step 1: Operations Phase: Performance Risk Assessment

Our performance risk assessment is based on the project's ability to deliver products and services reliably, and to meet performance standards consistently, as required under the transaction agreements.



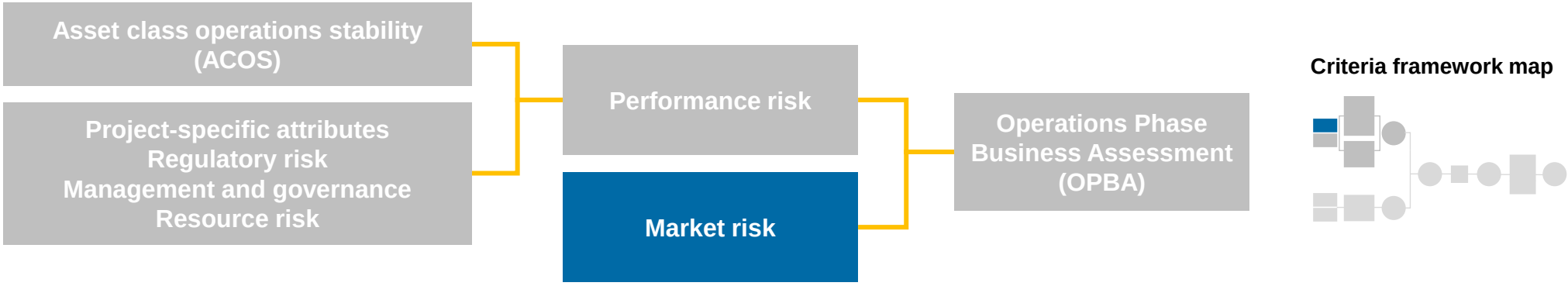
The performance risk is assessed by first assigning the project's **asset class operations stability (ACOS)**. The ACOS reflects the risk that a project's cash flows will differ from expectations because it is unable to provide services or products, based on the complexity of the activities in which it engages. We then analyze how the ACOS may be influenced, positively or negatively, by factors such as **project-specific contractual terms**, **regulatory risk**, **management and governance**, and **resource risk**.

Asset Class Operations Stability Assessment (ACOS)

Risk	Project attributes	Examples
1	Simple facilities with a low risk of underperformance: Predictable and well-defined life cycle regarding asset life and replacement cost.	Utilities Projects (Water Factory)
2	More challenging facilities with unexpected operating underperformance and greater cash flow variability: Specialized skills and staff management, complex logistics, simple mechanical or manufacturing processes.	Hotels, Buildings, solar projects, on-shore wind projects…
3	Additional sophistication of assets and interlinkages with a higher risk of operational underperformance: Advanced operating skills and moderately complex mechanical assets involving straightforward processes.	Complex Residential Projects, LNG plants, off-shore wind projects, oil refineries, coal plants.
4	Increased potential cash flow volatility: A higher level of mechanical assets requiring complex process interactions, and highly specialized maintenance.	Underground mines, moderately complex chemical plants
5	Greater potential cash flow volatility: Complexity of mechanical interactions and sophisticated logistical requirements posing outage and delay risks.	Nuclear power generation facilities, Electrical vehicle project
6	Relatively uncommon assets with high risk of unavailability compared with base-case production estimates with limited historical performance data.	Unusually complex assets, new asset types with no industry data

Step 1: Operations Phase: Market Risk Assessment

We consider the project's exposure to market conditions, arising from its exposure to price and/or volume fluctuations, and its competitive position compared with the industry average.



FiinRatings look at the following important factors when assess the market risk assessment:

Market Exposure: This measures the extent to which a project's forecast operating performance and cash flows are affected by price changes, volume fluctuations, or both.

Market Position: We look at the product quality, market trend, independent market survey, customer satisfaction measures to evaluate whether product positioning can help command higher margin and pricing power.

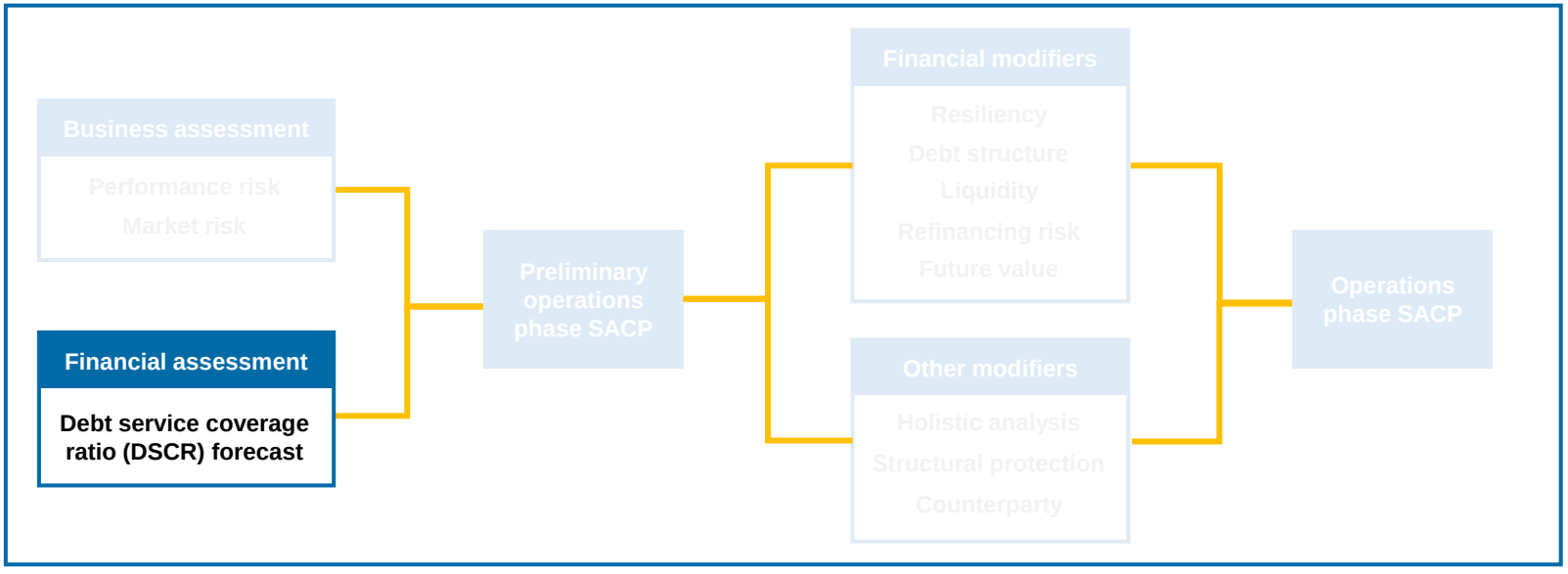
Asset Profile: Competitive advantage may be supported by the ability to reinvest and create new service.

Strategy: we focus on some parameters such as price strategy, sales and profit growth ratio, and required investment to assess the company's effective sales activities..

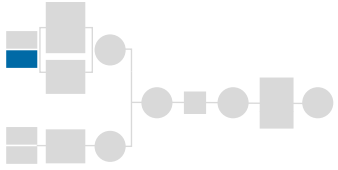
Counterparty's Creditworthiness: The Company has partnerships with firms that have Low risk creditworthiness might have advantages compared with its peers.

Step 1: Operations Phase: Financial Assessment

This assessment evaluates whether the project generates sufficient cash flows to meet its financial commitments during the operations phase.



Criteria framework map



To determine the financial assessment, we run a base-case forecast of the project's cash flows and debt service requirements, and calculate the **minimum Debt Service Coverage Ratio (DSCR)** until the debt is fully repaid.

A. Cash Flow Available For Debt Service (CFADS)= Operating Revenue – Operating & Maintenance Expenses.

B. Debt Service = Cash Interest Expense + Scheduled Principal due in that period

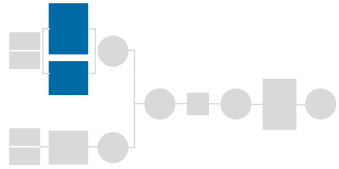
The minimum DSCR = Cash Flow Avaiable For Debt Service / Debt Service

We typically calculate the DSCR on a rolling-12-months basis at each payment date, as long as our base-case forecasts. However, we might utilize specific CFADS and DSCR formulas corresponding to the unique cash flow and debt structures involved.

Step 1: Operations Phase: Operations Phase Modifiers

After getting the **preliminary operations phase SACP**, we assess the project's **resiliency under stress**, **debt structure**, **liquidity position**, **refinancing risk** (when applicable), and **future value**. The final step in determining the operations phase SACP is to incorporate **holistic analysis**, **structural analysis**, and **counterparty constraints**.

Criteria framework map



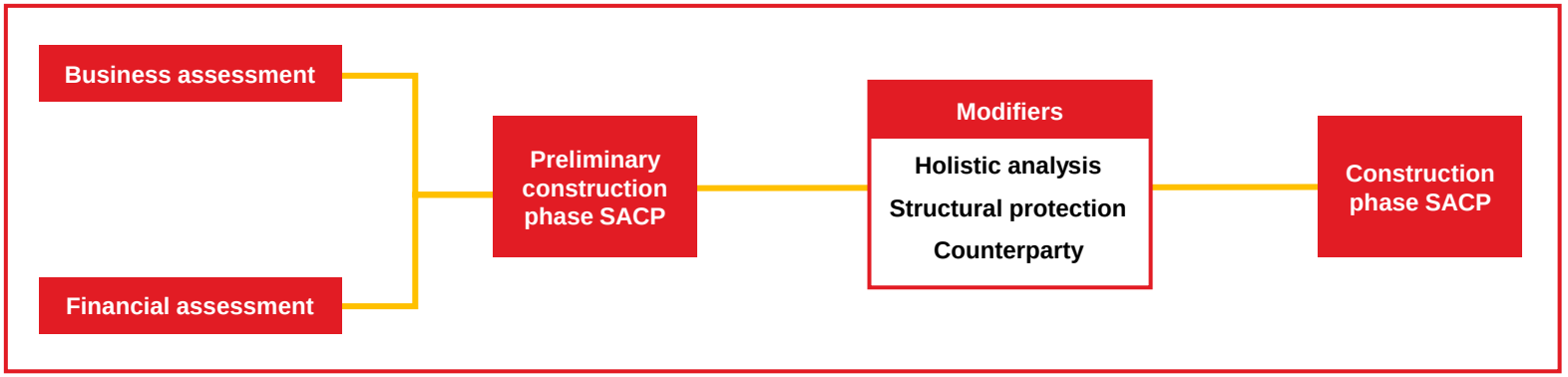
Modifiers	Description
Resiliency under stress	Greater resiliency may prompt us to revise up the preliminary operations phase SACP; conversely, weak performance under stress may cause us to apply a cap. We measure this by testing how projects performs in our downside scenario, and the robustness of its median DSCR.
Weaknesses in the debt structure	This may cause us to revise down the preliminary operations SACP. Weaknesses include a material dependency on cash flow sweeps to pay down debt, excessive debt leverage, unusually high mandatory amortization payments in later years, or high exposure to inflation rate changes.
Liquidity position	Liquidity can support or impair a project's risk profile and flexibility to respond to unpredictable events.
Refinancing risk	The preliminary operations phase SACP may be capped if we forecast that CFADS and unrestricted cash on hand would be insufficient to fully pay down debt by the end of the asset's life, including headroom.
Future value	If the project has the flexibility to react to unforeseen stresses arising from a longer tail, we may revise up the preliminary operations phase SACP by one notch.
Holistic Analysis	This analysis incorporates additional credit factors that the criteria may not separately identify or fully capture, as well as our assessment of a project's underperformance or overperformance relative to its peers.
Structural Protection	We may further negatively modify the preliminary operations phase SACP because of our assessment of the strength of the security package and the covenants in place.
Counterparty Constraints	The preliminary operations phase SACP may be weak linked to the CDA of material counterparties relating to operations phase contracts.

Step 2:

Construction Phase

Step 2: Construction Phase: Construction Phase Stand-Alone Credit Profile

We combine the project's **business** and **financial assessment** to derive the **preliminary construction phase SACP**, which will then be modified by **3 modifiers** to identify the **construction phase SACP**.



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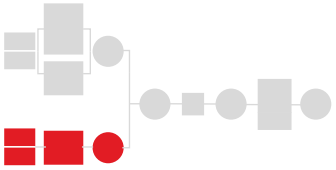
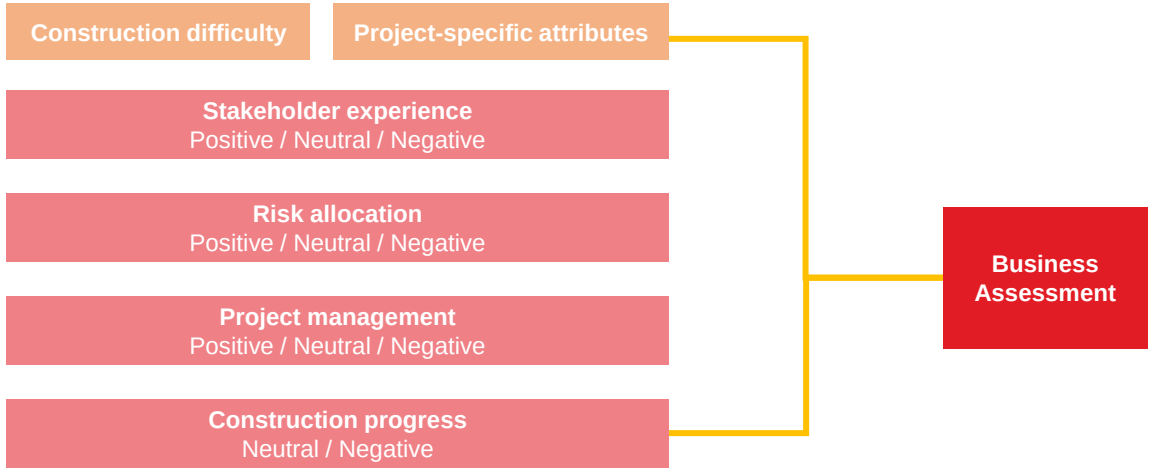


Determining the preliminary construction phase SACP

		--BUSINESS ASSESSMENT (CPBA)--					
		1	2	3	4	5	6
FINANCIAL ASSESSMENT (CPFA)	1	a+	a/a-	a-/bbb+	bbb+	bbb-	bb+
	2	a/a-	a-/bbb+	bbb+/bbb	bbb/bbb-	bb+	bb-
	3	a-/bbb+	bbb	bbb/bbb-	bbb-/bb+	bb	b+
	4	bbb/bbb-	bbb-	bbb-/bb+	bb	bb-	b
	5	bb+	bb	bb	bb-/b+	b+	b
	6	b-	b-	b-	b-	b-	b-

Step 2: Construction Phase: Construction Phase Business Assessment (CPBA)

The **Construction Phase Business Assessment (CPBA)** ranges from 1 to 6, with 1 being the strongest (lowest risk), and 6 being the weakest (highest risk). Our approach is both forward looking and informed by experience.



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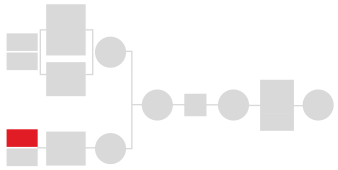


Construction difficulty: This factor captures the inherent level of construction risk considering the project's complexity, the type of asset, and the environment in which it is to be developed. More-complex assets are more exposed to technical issues, delays in completion, and cost overruns than a simple asset that uses proven construction techniques.

Project-specific attributes: If we think that project-specific features increase construction complexity or cost, the construction difficulty assessment may be raised by one to arrive at the CPBA. Attributes considered include the technology used, the complexity of the design and how advanced it is, and the extent to which event risks such as ESG risks could affect the final design.

Stakeholder experience: Successful construction depends on how well the key stakeholders perform during the construction phase. We assess the experience and expertise of key stakeholders, including contractors, subcontractors, equipment suppliers, and concessionaires/grantors, and governments, to determine their ability to meet their contractual obligations.

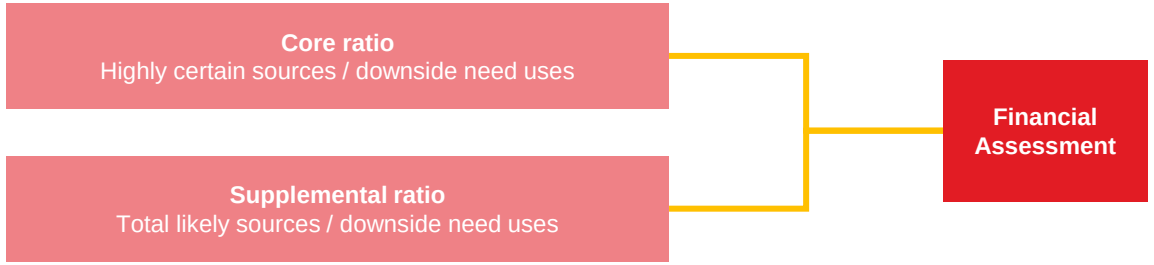
Risk allocation: We assess how well the company transfers risks associated with cost overruns, delays, and project performance to the appropriate third parties and how much risk the project retains. Our analysis considers the type of contract, risk pricing, contractors' incentives, and alignment with the project's goals.

Project management: We conduct a qualitative analysis of the project company's ability to manage the risks the project has retained and still meet construction milestones by evaluating project management risks in the following areas: Construction cash management; Management of permits, community stakeholders, and acquisition of rights-of-way; Planning and budgeting execution risk; Degree of design completion and cost variation risk; Sunset dates.

Construction progress: We aim to capture any deviation in complexity, scheduling, or nature of funding that may affect the timeliness of final completion and whether the construction meets the quality standards laid out in the contracts.

Step 2: Construction Phase: Construction Phase Financial Assessment

The **Construction Phase Financial Assessment (CPFA)** is determined using **Core Financial Ratio (**Highly certain sources / downside need uses) and **Supplemental Financial Ratio** (Total likely sources / downside need uses).



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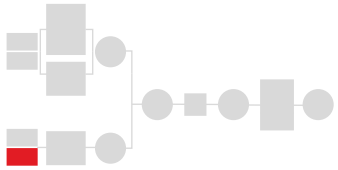


Core Financial Ratio

ASSESSMENT	CERTAIN SOURCES (X)
1	>=1.15
2	1.00-1.15
3	0.90-1.00
4	0.80-0.90
5	0.50-0.80
6	<0.50

Supplemental Financial Ratio

ASSESSMENT	TOTAL SOURCES (X)
1	>=1.30
2	1.15-1.30
3	1.05-1.15
4	1.025-1.05
5	1.00-1.025
6	<1.00

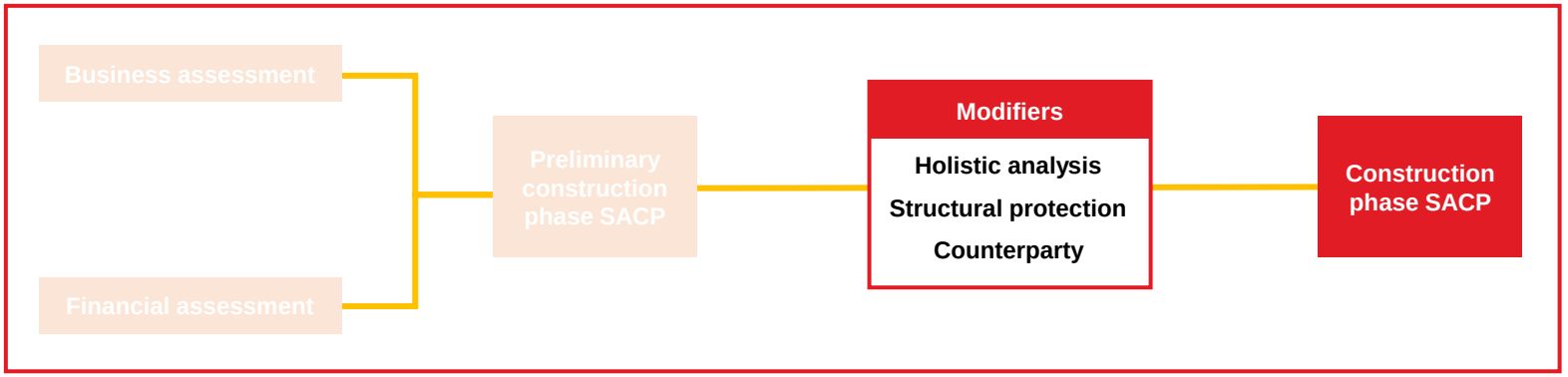
To be assessed as **certain**, the financing is expected to be:

- Contributed at or before financial close and deposited in a restricted account (usually controlled by a trustee); or
- Unconditionally and irrevocably committed, so that we expect it to be available when required, subject to the counterparty being rated at or above the project.

To be assessed as **likely**, the funding is expected to be committed to the project, but it may be available in a less timely manner or with some conditionality. Other sources that may vary in amount and time would be considered too volatile to be a reliable source of financing.

Step 2: Construction Phase: Construction Phase Modifiers

We may **modify the preliminary construction phase SACP** to incorporate our **holistic analysis**, our analysis of **structural protection**, and our assessment of **counterparty dependencies**.



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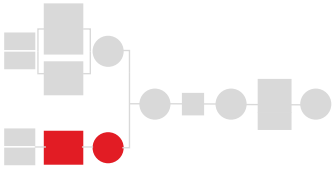


Holistic Analysis: We may revise the preliminary construction phase SACP determined up or down by one notch to capture a more holistic view of creditworthiness during construction. This analysis incorporates additional credit factors that the criteria may not separately identify or fully capture, or our assessment of a project's greater or lower risk relative to its peers'. Considerations that may lead us to adjust the preliminary construction SACP include:

- The period between expected completion and the sunset date is materially longer than peers'; or

- The project may access unusually large funding instruments that we do not consider as a likely source in our liquidity analysis, because of their conditionality, such as insurance company-provided performance bonds.

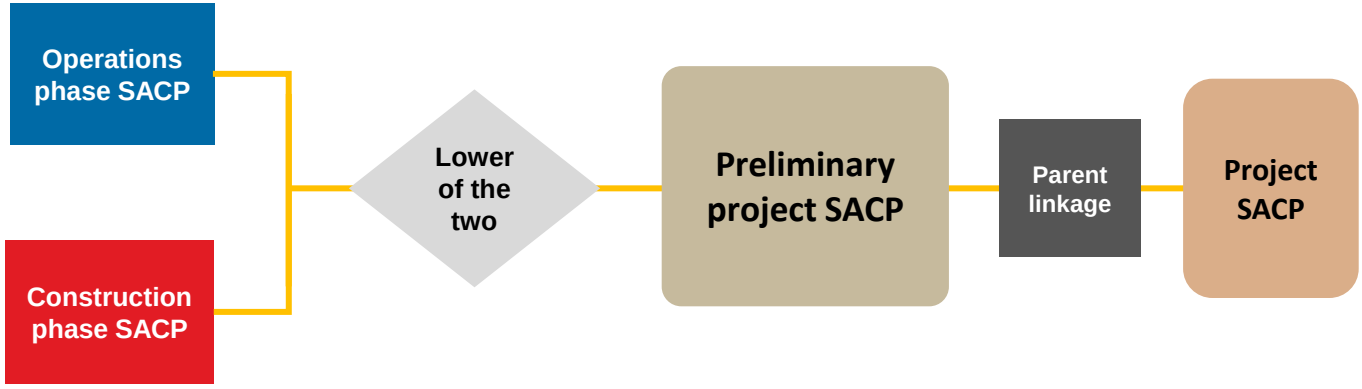
Structural Protection: Our assessment of the strength of the security package and of the covenants in place may trigger a further negative modification of the preliminary construction phase SACP. For example, if a building constructed as part of the project cannot be insured because it falls short of the minimum insurance requirements, we would revise down the preliminary construction phase SACP. The aggregate effect of the structural protection modifier could be to revise down the preliminary SACP by up to four notches.

Counterparty Constraints: The preliminary construction phase SACP may be weak linked to the Counterparty Dependency Assessment (CDA) of material counterparties involved in construction phase contracts.

Step 3: Building the Issue Credit Rating

Step 3: Building the Issue Credit Rating: Preliminary SACP & Parent Linkage

The **Preliminary Project SACP** is determined by the **lower of the Operations phase SACP** and **the Construction phase SACP.** The Preliminary Project SACP will then be modified by **Parent Linkage Assessment**.



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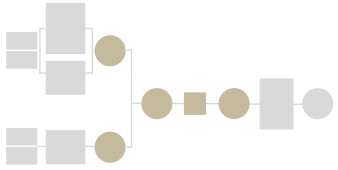


To **determine parent linkage**, we consider which of the following provisions apply to the structure:

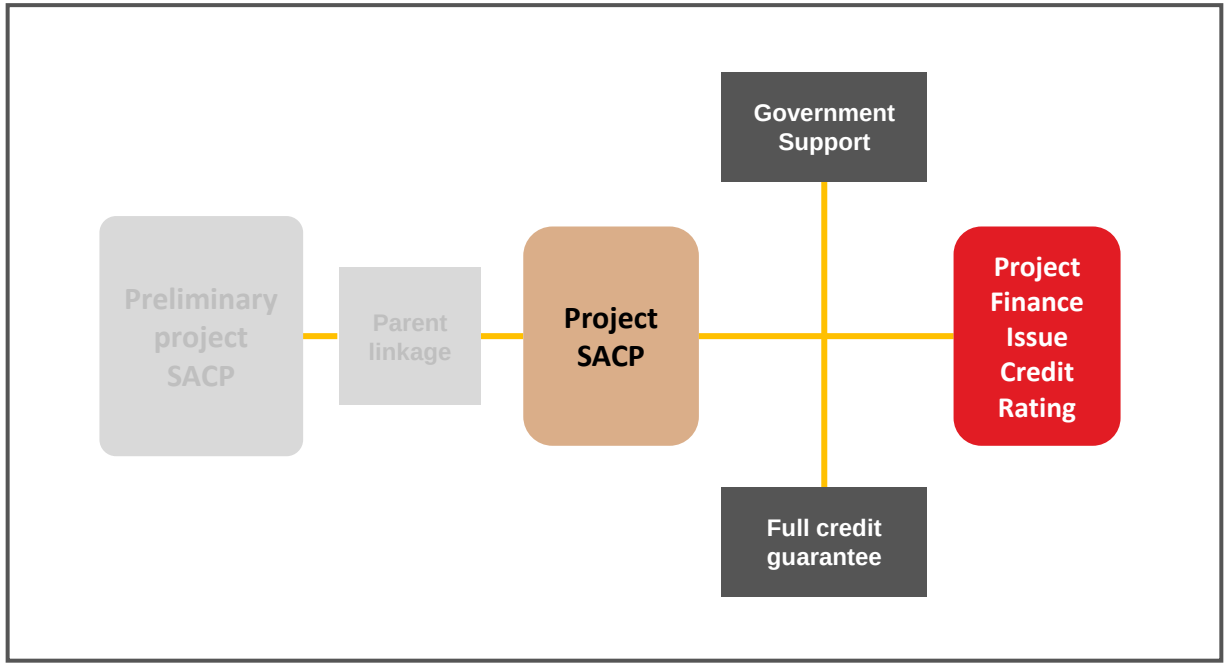
- An anti-filing mechanism that mitigates the risk that the LPE may choose to start voluntary bankruptcy proceedings for the convenience of its parent;
- No ability to merge or reorganize;
- Limitations on amendments to organizational documents;
- No parent dependencies, or any tax dependency is mitigated;
- Degree of separateness from its parents; and
- No cross-default provision or other provisions that could lead to bankruptcy of the LPE, unless they are mitigated.

Our assessment of these factors is **qualitative** and based on how the organizational or transaction documents address these elements.

- If a project is **delinked**, the creditworthiness of the **parent does not constrain** the project SACP.
- If a project is **linked**, the project SACP can be **up to three notches higher than the parent's creditworthiness**.
- If a project is **capped**, the project SACP **cannot be higher than the parent's creditworthiness**.

Step 3: Building the Issue Credit Rating: External Influences

In deriving the **final project finance issue credit rating**, we incorporate the **governmental influence and** the protection offered by **full credit guarantees**.



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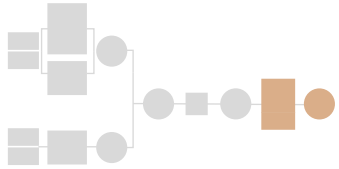

We may revise up or cap the project SACP according to our assessment of the potential for a related government to offer extraordinary support or intervene in the project.

When a project enjoys the protection of an unconditional and irrevocable guarantee for full and timely payment of interest and repayment of principal from a bond insurance provider, financial institution, or other third party, and that guarantee meets the conditions of our guarantee criteria, the project issue rating will reflect the higher of the project SACP (after considering the government influence and sovereign rating limits) and the creditworthiness of the guarantee provider.

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