

# 标普信评

## S&P Global

### China Ratings

# S&P Global (China) Ratings--Corporate Methodology

December 22, 2023

## SCOPE AND OVERVIEW

This methodology represents S&P Global (China) Ratings' methodology and assumptions for rating corporate entities. This methodology may also apply to other sectors where we deem appropriate for its use, given the characteristics of the sector, or where we believe an individual issuer or issue is best suited to be analyzed using this methodology.

This methodology describes how we determine the stand-alone credit profile (SACP) and issuer credit rating (ICR) for corporate entities. Our analysis reflects these entities' business risk profiles, their financial risk profiles, and other factors that may affect the SACP outcome. The methodology also provides guidance on how we use these factors as part of determining an issuer's ICR.

The business risk profile comprises the risk and return potential for an entity in the markets in which it participates, the competitive climate within those markets (its industry risk) and the competitive advantages and disadvantages the entity has within those markets (its competitive position). The business risk profile affects the amount of financial risk that an entity has at a given SACP level and constitutes the foundation for an entity's expected economic success. We combine our analysis of industry risk and competitive position to determine our view of an entity's business risk profile.

The financial risk profile is the outcome of decisions that management makes in the context of its business risk profile and its financial risk tolerances. This includes decisions about the manner in which management seeks funding for the entity and how it constructs its balance sheet. It also reflects the relationship of the cash flows the entity can achieve, given its business risk profile, to the entity's financial obligations. The methodology typically uses leverage analysis to inform our view of an entity's financial risk profile.

We combine an entity's business risk profile and its financial risk profile to determine its anchor. Additional rating considerations can adjust the anchor. These may include factors such as diversification, capital structure, financial policy, liquidity, and management and governance, amongst other things. Holistic adjustment is the last analytical factor under the methodology to determine the final SACP on an entity, and this considers the overall credit quality of the entity and its position against peers.

The ICR results from the combination of the SACP and any support framework, which determines the extent of the difference between the SACP and the ICR, if any, for group or government influence.

## METHODOLOGY

### 1. Corporate Ratings Framework

This methodology presents the analytical framework, and fundamental factors that we typically consider. In our analysis, we analyze an entity's business risk profile, then evaluate its financial risk profile, then combine those to determine an entity's anchor. We then may analyze additional factors that could potentially affect our anchor conclusion.

To determine the analysis for an entity's business risk profile, the methodology combines our analysis of industry risk and competitive position. Cash flow and leverage are typically considered to determine an entity's financial risk profile. The analysis then combines the corporate issuer's business risk profile and its financial risk profile to determine its anchor.

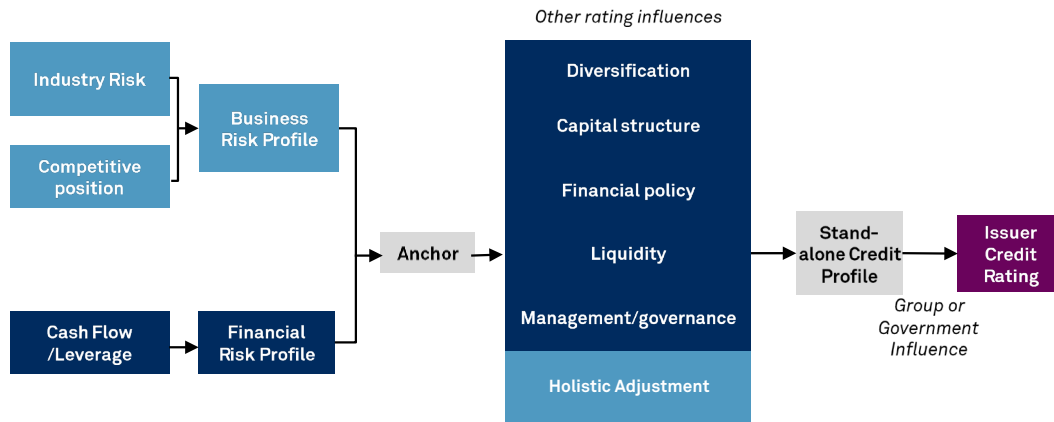
The analytic factors within the business risk profile generally are a blend of qualitative considerations and quantitative information. In analyzing cash flow and leverage to determine the financial risk profile, the analysis typically focuses predominantly on quantitative measures.

After we determine the anchor, we may consider additional factors to adjust the anchor. These factors may include considerations such as: diversification, capital structure, financial policy, liquidity, and management and governance. The analysis of these factors can raise or lower the anchor, or have no effect.

Holistic adjustment is the last analytical factor to determine the final SACP on an entity, which may lead to additional adjustment to the anchor, based on an overall view of the entity's credit characteristics and comparable ratings analysis.

The ICR results from the combination of the SACP and the support framework, which determines the extent of the difference between the SACP and the ICR, if any, for group or government influence. Ongoing support or negative influence for example from a government (for government-related entities), or from a group, may be factored into the SACP.

Chart 1



## 2. Determining the Business Risk Profile

### (1) Industry Risk

The analysis of industry risk addresses the major factors that we believe entities face in their respective industries. Industry risks tend to reflect the specific nuances of a respective industry and may include consideration of factors such as industry trends, technological considerations, barriers to entry and considerations about industry cyclicality, amongst other factors.

We may consider the following factors:

#### ***Cyclicality***

Cyclicality reflects the level of volatility that is caused by both macroeconomic factors and sector-specific dynamics. We typically include the cyclicality of revenue and profit into our cyclicality consideration. Where available, we may consider historical quantitative measures such as revenues and profitability over the course of broad economic stress and industry-specific downturns, with the view that the more cyclical an industry is, the more this contributes to credit risk. Cyclicality can be mitigated or exacerbated by the competitive environment.

In our view, compared to the cyclicality of revenue, the cyclicality of profit is a more critical factor to look at for identifying the current stage of an industrial cycle. This is because having sufficient profit is key to meeting cash flow demand from business operation and debt repayment.

An industry featuring strong cyclicality and overcapacity could lead to more intense competition and profit pressure, especially when the demand enters a downward cycle. Companies in industries showing strong cyclicality need to reduce their cost level when their revenue declines. As such, certain cyclical industries with higher fixed cost will face greater industry risk.

#### ***Competitive Environment***

Cyclicality can be mitigated or intensified by the competitive environment. We may consider factors such as barriers to entry, level and trend of profit margins, risk of secular change and substitutions, and risk in growth trends.

##### (a) Barriers to entry

Compared with industries with low barriers or without barriers to entry, industries with significant barriers to entry generally have lower competitive risk. Barriers to entry include:

- Regulatory factors, such as policies and regulations, licensing, permits, tariff barriers, and government ownership or control of specific industries. These factors will reduce competition risk and make EBITDA and cash flow more stable.

- Trademarks, R&D capabilities, and technology. These strengths can bring huge competitive advantages to the companies in the industry for a certain period of time, and form a barrier against potential entrants.
- Capital requirement. Certain industries that require large capital expenditures, especially those with a long payback period, create a huge obstacle to new entrants, because new entrants are usually in a weaker position than market incumbents in terms of financing capability.
- The cost advantage of market incumbents in the industry due to industrial structure.
- Industrial integration and concentration. This leads to lower competition and larger scale of companies in the industry.
- Brand influence. Existing valuable brands make it very hard and costly for new entrants to tap into the market and gain customer recognition.

(b) Level and trend of profit margins

This indicator measures the impact of competition landscape, operating conditions, cost structure and volatility on the industrial profit margin, rather than the impact of the economic cycle on the industrial profit margin. It also considers the level of profit margin and ongoing movement.

The main factors affecting the industry's profit level include:

- Intensity of industrial competition, including the basis and characteristics of competition.
- Cost and cost volatility (energy, raw materials, parts, etc.).
- Risk of asset and commodity price bubble burst.
- Labor cost.
- Customer and supplier concentration and bargaining power.
- Costs for maintaining assets such as property, plants and equipment.
- Natural disasters and man-made accidents.
- Technology breakthroughs within the industry and related costs.
- Legal risks and costs.
- Rules and regulations, and tax and property policies.

(c) Secular change and substitution risk

This indicator gauges the change in competition pattern and risk associated with industrial change. New technologies or products developed by competitors within or outside the industry may have a negative impact on revenue, profit margin, cash flow and credit profile across the industry. The substitutes generated by new technologies may disrupt the entire industry in extreme cases.

(d) Growth trend risk

A healthy growth outlook for a well-established industry can be a key positive factor in the industry's risk profile. In a few emerging industries, although the industry growth rate is fast, it is often accompanied by rapid technological iteration and frequent changes in business models, resulting in higher industry risks.

Below is the indicative industry risk ranking. These are indicative only and may change over time.

Table 1

### S&P Global (China) Ratings Industry Risk Rankings

Industry	Assessment	Industry	Assessment
Trading	High 5	Capital Goods	Intermediate 3
PV Manufacturing	High 5	Consumer Durables	Intermediate 3
Metal & Mining Downstream	Moderately High 4	Business and Consumer Services	Intermediate 3
Metal & Mining Upstream	Moderately High 4	Technology Software and Services	Intermediate 3
Commodity Chemicals	Moderately High 4	Containers and Packaging	Intermediate 3

Technology Hardware and Semiconductors	Moderately High	4	Media and Entertainment	Intermediate	3
Oil and Gas Refining and Marketing	Moderately High	4	Retail and Restaurants	Intermediate	3
Engineering and Construction	Moderately High	4	Transportation leasing	Intermediate	3
Forest and Paper Products	Moderately High	4	Railroads and Package Express	Intermediate	3
Oil and Gas Drilling and Oilfield Services	Moderately High	4	Healthcare Services	Intermediate	3
Transportation Cyclical	Moderately High	4	Healthcare Equipment	Intermediate	3
Auto Suppliers	Moderately High	4	Branded Nondurables	Intermediate	3
Homebuilders and Developers	Moderately High	4	Environmental Services	Intermediate	3
Auto OEM	Intermediate	3	Investment Holding Companies	Intermediate	3
Pharmaceuticals	Intermediate	3	Transportation Infrastructure	Low	2
Unregulated Power and Gas	Intermediate	3	Midstream Energy	Low	2
Agribusiness and commodity foods	Intermediate	3	Commercial Property and Real Estate Investment Trusts (REITs)	Low	2
Building Materials	Intermediate	3	Specialty Chemicals	Low	2
Oil and gas integrated, exploration and production	Intermediate	3	Telecommunications	Low	2
Leisure and Sports	Intermediate	3	Aerospace and Defense	Low	2
			Regulated Utilities	Very Low	1

Note: 1 represents lowest industry risk, 6 represents highest industry risk.

## (2) Competitive Position

Competitive position may encompass entity specific factors that can add to, or partly offset, industry risk.

Competitive position can take into account an entity's competitive advantage, scale, scope and diversity, operating efficiency, and profitability. An entity's strengths and weaknesses on these components may shape its competitiveness in the marketplace and the sustainability or vulnerability of its revenues and profit. A stronger than industry average set of competitive position characteristics will typically strengthen an entity's business risk profile. Conversely, a weaker than industry average set of competitive position characteristics will typically weaken an entity's business risk profile.

Competitive position is composed of:

- Competitive advantage, which may include: differentiation/uniqueness/brand power; market position, leadership, and presence; revenue, growth, and profitability prospects; barriers to entry, switching costs; asset or technological advantage; pricing power and bargaining power with suppliers; and ability to withstand negative effects from economic or industry downturns.
- Scale, scope and diversity, which may include: diversity of products, services, brands; customers, suppliers; geographic diversity; and economies of scale from a broad scope.
- Operating efficiency, which may include: cost structure, management and flexibility; manufacturing and operating efficiency; working capital management; and technology and automation.

- Profitability.

To assess a company's competitive position, we typically evaluate competitive advantage, scale, scope and diversity, operating efficiency, and profitability. We then combine them based on the preponderance of our assessment of these factors to arrive at the competitive position, considering the factors in aggregate and versus peers.

The nature of competition and key success factors are generally prescribed by industry characteristics, but vary by company. Where service, product quality, or brand equity are important competitive factors, we may give the competitive advantage component more weight in our consideration of the aggregate assessment. Conversely, if the company produces a commodity product, differentiation comes less into play, and we may more heavily weight scale, scope and diversity as well as operating efficiency.

### ***Assessing profitability***

The profitability assessment typically considers the level of profitability and the volatility of profitability, which we assess separately.

#### **(a) Level of profitability**

The level of profitability is usually assessed in the context of the entity's industry. We commonly measure profitability using return on capital (ROC) and EBITDA margins, but we may also use sector-specific ratios.

We typically calculate profitability ratios based on historical data, and our projections. There may be situations where we consider altering historical results or forecasts, depending on such factors as availability of financials, transformational events (such as mergers or acquisitions), and cyclical or other types of distortion. We may also take into account improving or deteriorating trends in profitability ratios in our assessment.

#### **(b) Volatility of profitability**

We may consider the volatility of profitability for an entity's historical EBITDA, EBITDA margins, or return on capital.

For companies that have a long history of operation without events that may distort profitability, such as large transformative acquisitions or changes to their business model, we typically analyze historical performance to inform our assessment of profitability volatility. For companies that do not have such historical profiles, we typically form a forward-looking expectation of volatility based on company- and industry-specific characteristics.

In most cases, we assess volatility as average, which does not affect our assessment of level of profitability. However, we may adjust our assessment of profitability down for companies with very volatile profitability. Conversely, we may adjust our profitability assessment up for companies with very stable profitability.

For an investment holding company (IHC), which generally seeks capital appreciation and return maximization, we typically consider the following: asset liquidity, asset diversity, asset credit quality and strategic investment capability.

- Asset liquidity. Our assessment may include whether the investments are shares of listed companies; the proportion of shares held.
- Asset credit quality. Asset credit quality assesses the creditworthiness of investee companies.
- Asset Diversity. Our asset diversity assessment typically takes into account the portfolio's industry concentration, geographic concentration, and level of asset concentration.
- Strategic investment capability, mainly used to measure other factors including investment discipline, risk identification and risk control, portfolio rotation and overall investment return.

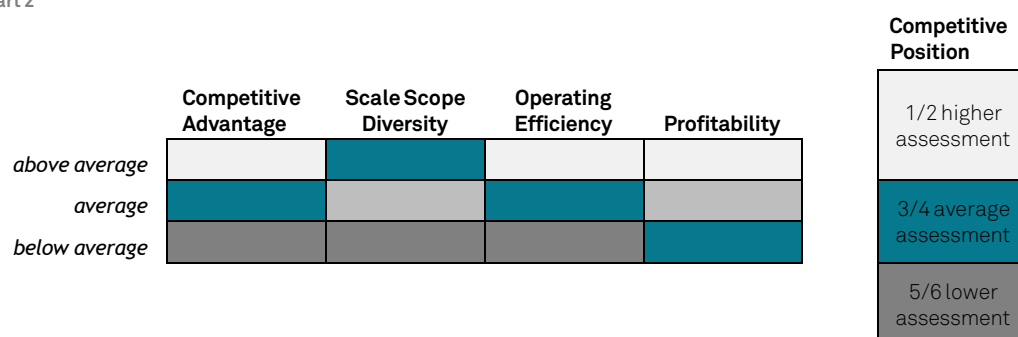
We typically evaluate the above four factors and then combine them based on the preponderance of our assessment of these factors to arrive at the competitive position, considering the factors in aggregate and versus peers.

The nature of competition and key success factors are generally prescribed by industry characteristics, but vary by company. Where service, product quality or brand equity are important competitive factors, we may give the competitive advantage component more weight in our consideration of the aggregate assessment. Conversely, if the company produces a commodity product, differentiation comes less into play, and we may more heavily weight scale, scope, and diversity as well as operating efficiency.

We assess the competitive position based on the scoring scale from “1” to “6”, where “1” represents the strongest competitive position and “6” represents the weakest.

The following example (chart 2) illustrates how our assessment of competitive position is conducted: a combination of one ‘above average’, two ‘average’, and one ‘below average’ factor assessments may arrive at a competitive position of average assessment at ‘3’ or ‘4’. We may utilize industry analysis and peer comparison to determine the most relevant factors, and then arrive at a more specific assessment of competitive position at ‘4’.

Chart 2



Note: The blue section represents our assessment for the example.

Source: S&P Global (China) Ratings.

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### (3) Combining Industry Risk with Competitive Position

We combine the industry risk and competitive position to arrive at a company's business risk profile. The table below is intended to be a guideline. Where appropriate, we may adjust the business risk profile assessment to better reflect the aggregate strengths and weaknesses of a company.

Table 2

#### Determining the Business Risk Profile

Competitive Position	Industry Risk					
	1	2	3	4	5	6
1	1	1	1	2	3	5
2	1	2	2	3	4	5
3	2	3	3	3	4	6
4	3	4	4	4	5	6
5	4	5	5	5	5	6
6	5	6	6	6	6	6

Note: 1 represents lowest risk and 6 being the highest.

For a conglomerate operating in multiple industries, we may assess each business segment's business risk profile. They are then blended using a weighted average of assets, revenue or earnings to form the conglomerate's business risk profile assessment.

### 3. Determining the Financial Risk Profile

A company's financial statements are the starting point of our financial analysis. However, to allow for consistent and comparable financial analyses, our rating analysis may include quantitative adjustments to companies' reported results. These adjustments also enable better alignment of a company's reported figures with our view of underlying economic conditions. Moreover, they allow a more accurate portrayal of a company's ongoing business, for example following acquisitions or disposals, through pro forma adjustments.

Our use of analytical adjustments depends on whether events and items a company reports could have a material impact on our view of the company's creditworthiness. Therefore, we may not make certain adjustments if the related amounts are too small to be material to our analysis. Where financial information required for our analytical adjustments is not provided, we may request it from management or otherwise determine a best estimate.

#### Cash Flow/Leverage

The pattern of cash flow generation, current and future, in relation to cash obligations is often a good indicator of an entity's financial risk. We may assess a variety of credit ratios.

## 1. Corporate

We may assess a variety of credit ratios, predominately cash flow-based, which focus on the different levels of an entity's cash flow in relation to its obligations (e.g. before and after working capital investment, before and after capital expenditures, before and after dividend payouts), to develop a thorough perspective. Moreover, we may use ratios that we think are most relevant to measuring an entity's credit risk based on its individual characteristics and its business cycle.

We generally evaluate the historical, current and forecasted credit ratios of an entity and take into account the impact of availability of financials, transformational events and other relevant factors.

### Core and supplemental ratios

#### (1) Core ratios

For each entity, we typically calculate two core credit ratios—adjusted total debt to EBITDA and EBITDA interest coverage. These ratios are also useful in determining the relative ranking of the financial risk of entities.

Adjusted total debt to EBITDA is typically intended to measure the extent of the entity's reliance on leverage. EBITDA interest coverage is intended to measure the entity's ability to cover interest expenses using the cash flow it generates. If the financial risk profile scores indicated by the two core ratios differ, we will choose the ratio that can better reflect the entity's financial risk profile as the basis for our assessment.

The application of ratios may vary by industry or over time as financial conditions change.

We may consider EBITDA interest coverage as the core ratio in our assessment for SOEs in certain industries given their good access to funding. In order to better reflect the characteristics of the entity, we may also apply other supplementary financial ratios.

#### (2) Supplemental ratios

We may also consider one or more supplemental ratios (in addition to the core ratios) to help develop a fuller understanding of an entity's financial risk profile and fine-tune our cash flow/leverage analysis. Supplemental ratios could either confirm or adjust the preliminary cash flow/leverage analysis. The confirmation or adjustment of the preliminary cash flow/leverage analysis may depend on the importance of the supplemental ratios as well as any difference in indicative cash flow/leverage.

Below is an example of benchmark financial ratios. These are indicative only and may vary by issuer or industry and may change over time. For example, for an IHC, we apply a different set of financial ratios that can better capture the characteristics of the industry. We may also develop new financial indicators for a new industry that may emerge in the future.

In a few cases, we may choose a different financial risk profile from that indicated by the table, if we believe a different financial risk profile score from that indicated can better reflect an entity's financial risk profile. For industries that exhibit strong cyclicity in terms of earnings and cash flow, we may consider making cash flow volatility adjustment accordingly in our final financial risk assessment. The volatility adjustment is not static and is company specific. If during periods of stressed business conditions, an issuer's credit metrics would deteriorate materially, we may make volatility adjustment to its financial risk profile. For example, if a cyclical industry is at the peak of its earnings or cash flow cycle, we may assess the entity's financial risk profile as weaker than that indicated by its financial indicators. Such volatility adjustment may be removed if that industry is at the mid-cycle or the trough of a cycle.

Table 3

### Benchmark Financial Ratios

Tier	Adjusted Total Debt/EBITDA (x)	EBITDA Interest Coverage (x)
1	<2.5	>7
2	2.5-4	3.25-7
3	4-6	1.75-3.25
4	6-8	1.15-1.75
5	8-15	0.7-1.15
6	>15	<0.7

Note: The lower the tier number, the lower the financial risk, and vice versa.

## 2. IHC

Unlike conglomerates, IHCs primarily rely on dividends received from investee companies and fee income to service their interest payments, operating expenses, and dividends. Therefore, we typically use loan-to-value (LTV) and cash flow adequacy ratio to

assess an IHC's financial risk profile. Considering the characteristics of IHCs, we primarily focus on the matching between an entity's interest-bearing debt and the value of its investments, and its funding and capital structure in our financial risk assessment.

### Core and supplemental ratios

#### (1) Core ratios

The analysis scope of LTV is generally confined to an IHC's parent company and subsidiaries acting as financing vehicles. An IHC's debt includes all parent company and related financing vehicles' debt instruments. We typically use the book value, fair market value or comparable transaction value to calculate an IHC's portfolio value. In our analysis, to arrive at the IHC's LTV ratio we take a combined view of factors such as the company's own financial control mechanisms, investment value volatility, book value transparency and the feasibility of the book value matching the fair market value should the asset be sold. We generally view IHCs with lower LTV ratios as having better refinancing capability and more refinancing headroom, therefore leading to lower financial risk.

#### (2) Supplemental ratios

##### Cash flow adequacy ratio

We analyze cash flow adequacy by comparing recurring cash inflows to nondiscretionary cash outflows, which for IHCs involves comparing inflow indicators such as dividends received, management fees and interest income with outflows like operating costs, interest expense and tax expenditure. In some cases, we may also include the company's dividend distribution as a nondiscretionary cash outflow, depending on the IHC's dividend distribution policy.

##### Funding and Capital Structure

We also consider F&CS as an important factor which may impact an IHC's financial risk profile. We generally look at factors including the degree of diversity of the IHC's funding sources, currency and interest risk of debt, exposure to and structural complexity of the financing of investee companies, the tenor of the debt maturity profile, etc. We may adjust the financial risk profile in cases where we view the F&CS as having a negative impact.

## 4. The Anchor

The combination of our assessments of an issuer's business risk profile and financial risk profile results in the anchor rating. The table below is intended to be a guideline. We may arrive at an alternate anchor rating for a given BRP and FRP if we believe it better reflects the issuer's strengths or weaknesses. If we view an issuer's capital structure as unsustainable or if its obligations are currently vulnerable to nonpayment, and if the obligor is dependent upon favorable business, financial, and economic conditions to meet its commitments on its obligations, then we may assign a lower anchor.

Table 4

### The Anchor

Business risk profile	Financial risk profile					
	1	2	3	4	5	6
1	aaa	aaa/aa+	aa+	aa/aa-	a+/a	bbb+
2	aaa/aa+	aa+	aa/aa-	a+/a	a-/bbb+	bbb
3	aa	aa/aa-	a+/a	a/a-	bbb+/bbb	bbb-/bb+
4	a+	a	a/a-	bbb+/bbb	bbb-/bb+	bb/bb-
5	a-/bbb+	bbb/bbb-	bbb-	bb+/bb	bb/bb-	b+/b
6	bbb	bbb-/bb+	bb/bb-	b+	b	b-

The above table is not applicable to the following circumstances where the assessment of business risk profile and financial risk profile does not generate meaningful results:

- Where an entity's ability to repay debt relies extremely on fair economic environment and the default risk is extremely high, we assign an issuer credit rating of "CCC<sub>spc</sub>".
- Where an entity receives lower protection in situation of bankruptcy or reorganization and the repayment of debt may not be generally guaranteed, we assign an issuer credit rating of "CC<sub>spc</sub>".
- Where an entity is unable to repay the debt, we assign an issuer credit rating of "C<sub>spc</sub>".



## 5. Other Rating Influences

### Diversification

The analysis of diversification/portfolio effect may raise, lower, or have a neutral effect on an entity's anchor. The impact of this factor on an entity's anchor is typically based on the entity's business risk profile. Multiple earnings streams (which are typically evaluated within a firm's business risk profile) that are diverse and not overly correlated can reduce the risk of default of an entity.

When cross-industry or geographic diversification is likely to provide lower volatility through an economic cycle than an entity without such diversification, we may assess diversification as positive and raise the anchor rating. Typically, diversification is neutral and has no impact on the anchor.

For an IHC, this adjustment is not applicable because the evaluation of asset diversity has been included in the assessment of business risk profile.

### Capital Structure

We may examine the capital structure elements of an entity to assess risks in an entity's capital structure that may not show up in our standard analysis of cash flow/leverage. These risks may exist as a result of maturity date or other mismatches between an entity's sources of financing and its assets or cash flows.

We consider the following factors that may not be adequately captured in our leverage analysis:

- Debt maturity profile: we consider refinance risks or benefits beyond the horizon we typically consider in our liquidity analysis.
- Debt interest rate risk: we could view this risk as negative if interest rate movements could lead to material weakening of leverage due to an entity's mix of fixed versus floating rate debt.
- Investments: we view material, nonstrategic investments that could be readily monetized as flexibility that could enhance an issuer's credit quality.
- Debt currency risk: we could view this risk as negative when exchange rate movements could lead to weakening leverage metrics due to unhedged foreign exchange risk.

We consider the above factors in totality when arriving at an assessment of capital structure as positive or negative, which may adjust the anchor up or down, respectively. A neutral capital structure has no effect on the anchor.

For an IHC, this adjustment is not applicable because the evaluation of capital structure has been included in the assessment of financial risk profile.

### Financial Policy

Financial policy may refine our view of an entity's risks beyond the conclusions arising from the standard assumptions in the leverage analysis. Those assumptions may not always reflect or entirely capture the short-to-medium term event risks or the longer-term risks stemming from an entity's financial policy. To the extent movements in one of these factors are difficult to predict within our forward-looking evaluation, we may capture that risk within our evaluation of financial policy.

The cash flow/leverage analysis will typically factor in operating and cash flow metrics we have observed and the trends we expect to see in the future, based on operating assumptions and predictable financial policy elements, such as ordinary dividend payments or recurring acquisition spending. An entity's financial policies can change its financial risk profile based on management or, if applicable, the entity's controlling shareholder.

We may assess an entity's financial policy as positive and arrive at an SACP higher than the anchor when management is committed and able to sustainably reduce leverage beyond our base-case forecast. On the other hand, if we believe that a company's financial risk tolerance materially exceeds our base-case assumption because, for example, the company has a track record of higher leverage or significantly more aggressive financial policies, we may assess financial policy as negative and arrive at an SACP lower than the anchor. A neutral financial policy has no effect on the anchor.

For an IHC, this adjustment is not applicable because the consideration of its financial policy has been included in the assessment of business risk profile.

### Liquidity

Our assessment of liquidity typically focuses on monetary flows (the sources and uses of cash) that are often indicators of an entity's liquidity position. The analysis typically considers the potential for an entity to breach any covenant tests, as well as its ability to absorb high-impact, low-probability events, the nature of the entity's bank relationships, its standing in credit markets, and how prudent (or not) we believe its financial risk management to be.

Liquidity does not usually provide uplift to a rating, but in some cases may be the driving factor of relatively low ratings. We consider quantitative and qualitative factors when analyzing liquidity and may assess liquidity as sufficient or insufficient.

The most important reflection of liquidity is generally in the quantitative measure of sources to uses. Generally, liquidity sources over a given time period include:

- Cash and liquid investments less any taxes or expected discounts on realization.
- Forecasted cash from operations if positive.
- Expected working capital inflow if any.
- Proceeds from contracted asset sales.
- Undrawn and available portion of available and reliable credit lines.
- Explicit quantifiable support from a parent, government, or related affiliate support.

Uses of liquidity typically include:

- Forecasted cash from operating activities if negative.
- Expected working capital outflow if any.
- Expected capital expenditures.
- All debt maturities either recourse to the company or which it is expected to support, including commercial paper.
- Contracted acquisitions and expected shareholder distributions; and any cash calls that are likely to be triggered due to a covenant breach or other trigger.

In periods of increasing stress, where an entity has flexibility to reduce planned cash outflows (for instance, growth in capital expenditures), we may account for such a reduction when we believe management will behave accordingly.

## Management And Governance

The analysis of management and governance typically addresses how management's strategic competence, organizational effectiveness, risk management, and governance practices shape the entity's competitiveness in the marketplace, the strength of its financial risk management, and the robustness of its governance. Stronger management of important strategic and financial risks may enhance creditworthiness.

Management factors we typically consider:

- Strategic and organizational capabilities.
- Execution of strategy.
- Risk management.
- Operational performance.
- Operational effectiveness.
- Management's expertise and experience.
- Management's depth and breadth.

Governance factors we typically consider:

- Board effectiveness.
- Ownership structure.
- Management culture.
- Regulatory, tax, or legal considerations.
- Internal controls.
- Financial reporting and transparency.

The impact a low assessment has on the anchor is generally a function of the severity of the weakness(es). If management and governance is assessed as positive or negative, we may adjust the anchor up or down, respectively. A neutral management and governance has no effect on the anchor.

## Holistic Adjustment

The holistic adjustment is the final step in determining an SACP on an entity. This analysis can lead us to raise or lower our anchor, based on our overall analysis of its credit characteristics for the factors we have considered in arriving at the SACP. This involves taking a holistic review of an entity's SACP, in which we evaluate an entity's credit characteristics in aggregate and consider any factors not already captured. A positive assessment may lead to raising our assessment and alternatively a weaker assessment may lead to lowering our assessment, relative to the anchor.

## SACP of Conglomerates

For a conglomerate with multiple-industry operations, we typically assess the business risk profile for each of its segments based on our assessment of industry risk and competitive position for the specific industry, they are then blended using the weighted average of revenue, assets, or earnings. For instance, if a conglomerate's operations comprise real estate development and transportation infrastructure, we first assess the business risk profiles of the two business segments as "4/Fair" and "2/Strong", respectively. Where we consider both segments to have equal influence on the overall creditworthiness of the conglomerate, we would average their business risk profiles resulting in a business risk profile of "3/Satisfactory" for the conglomerate. If the two segments do not equally influence the overall creditworthiness of the conglomerate, but their influence comprises, e.g. 75% and 25%, respectively, this indicates an overall business risk profile of "3/Satisfactory" or "4/Fair" for the conglomerate. Ultimately, we incorporate the financial risk profile of the conglomerate and other factors to arrive at its SACP.

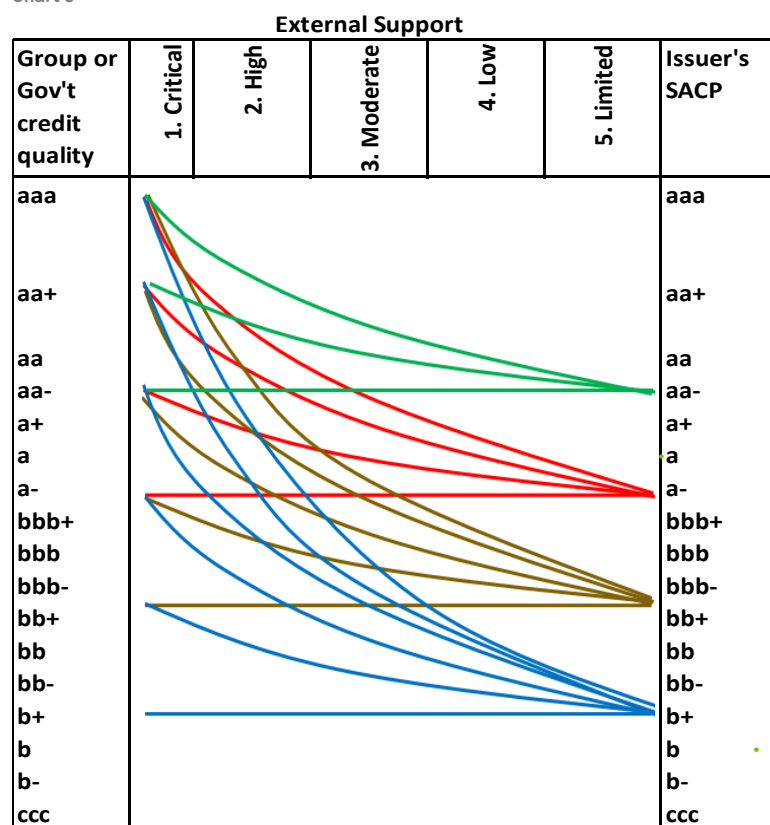
For a conglomerate operating both corporate and financial institution businesses, we would assess the respective SACP for both segments, they are then blended using the weighted average of revenue, assets, or earnings to arrive at a preliminary SACP of the conglomerate. We may adjust up or down the preliminary SACP to arrive at the final SACP, after our consideration of diversification and other positive or negative credit factors. For instance, suppose a conglomerate comprises both corporate operation and insurance business, we assign individual SACP of "bb" and "a", respectively, using specific sector rating methodologies for the two segments. Where we consider both to have equal influence on the overall creditworthiness of the group, we may assess a preliminary group SACP at "bbb". If the influences of the two entities on the overall creditworthiness of the group are not equal and comprise 75% and 25%, respectively, this would lead to a preliminary group SACP of "bb+" or "bbb-". We may further adjust our result based on other analytic factors to determine the final group SACP.

## 6. Issuer Credit Rating

The ICR results from the combination of the SACP and the support framework. The support framework, details of which can be found in our relevant commentaries, determines the extent of the difference between the SACP and the ICR, if any, for group or government influence. Such influence may be in the form of support or intervention, and may therefore support or detract from the issuer's ability to fulfill its financial commitments.

We assess the external support to affiliated entity as critical, high, moderate, low, or limited. As the level of support increases, so does the potential for an uplift to the issuer rating. Each level of support has a range of outcomes. Our starting point is usually the mid-point of the corresponding section on the curve (it may be higher when the support level is assessed as critical), with the flexibility to adjust up or down within that range after a thorough consideration of the company's functional positioning, revenue and profit contribution, and strategic position. The ultimate ICR is then determined. When the group's credit quality is lower than that of its subsidiary, the subsidiary's ICR may be constrained by the group's creditworthiness (unless the subsidiary is insulated). We may determine an outcome which does not fall on the curve when we deem it appropriate.

Chart 3



The tables below are indicative external support assessments. These are indicative only and may change over time as market conditions change.

Table 5

### Indicative Government Support Assessment

External Support	One or more typical features below may be included
1-Critical	<ul style="list-style-type: none"> <li>The entity engages in activities that are irreplaceable and demonstrate natural monopoly.</li> <li>The entity is responsible for ensuring national energy security or national security.</li> <li>The entity is not for-profit and shows strong public welfare attributes.</li> <li>The entity plays a functional role on behalf of the government.</li> <li>The entity can help maintain financial stability.</li> <li>The entity is the absolute leader or consolidator in a core industry.</li> <li>The entity's default may make a material impact on local economic and financing conditions or even result in regional systemic risk.</li> </ul>
2-High	<ul style="list-style-type: none"> <li>The core department of the government directly holds stake in the entity.</li> <li>The entity is responsible for implementing the government's industrial policy.</li> <li>The entity's default may lead to relatively large impact on local economic and financing conditions.</li> <li>The majority of the entity's revenue is generated locally.</li> </ul>
3- Moderate	<ul style="list-style-type: none"> <li>The entity plays a positive role in supporting local economy, but not necessarily have presence in pillar/core industries in the region.</li> <li>The government has a large stake in the entity.</li> <li>The entity's default may make some impact on local financing conditions.</li> </ul>

	<ul style="list-style-type: none"> <li>The entity has an average competitive position in the industry.</li> </ul>
4-Low	<ul style="list-style-type: none"> <li>The entity plays a limited role in supporting local economy,</li> <li>The government has a small stake in the entity.</li> <li>The government may intend to sell the entity.</li> </ul>
5-Limited	<ul style="list-style-type: none"> <li>There's recent record of the government not supporting the entity; or the minor support provided by the government is unlikely to be sustainable.</li> <li>The government clearly intend to sell the entity.</li> <li>The entity has no public welfare attributes and demonstrates poor business risk and financial risk profiles, resulting in weak business sustainability.</li> </ul>

Table 6

**Indicative Group Support Assessment**

<b>External Support</b>	<b>One or more typical features below may be included</b>
1-Critical	<ul style="list-style-type: none"> <li>The entity has a very close link with the group.</li> <li>The entity conducts core businesses or strategic development businesses or plays a core functional role for the group.</li> <li>The entity contributes a very large share of assets, revenue, or profit of the group.</li> <li>The entity is closely linked to the group's reputation, name, brand, external financing or risk management.</li> <li>The group owns a very large stake in the entity.</li> </ul>
2- High	<ul style="list-style-type: none"> <li>The entity has a close link with the group.</li> <li>The entity operates in lines of business that are very closely aligned with the group's long-term growth, which shows strong sustainability.</li> <li>The entity contributes a large share of assets, revenue, or profit of the group.</li> <li>The entity is somewhat linked to the group in terms of reputation, name, brand, external financing, or risk management.</li> <li>The group owns a large stake in the entity.</li> </ul>
3-Moderate	<ul style="list-style-type: none"> <li>Despite the lack of support attributes from the above two categories, the entity still has access to extraordinary group support in certain scenarios.</li> <li>The group can exert control over the entity.</li> <li>The entity's contribution of revenue and profit to the group is modest despite operating in the group's mainstream business.</li> <li>The entity's main business is generally aligned with the group's strategic positioning but does not constitute the core business of the group.</li> <li>There's track record of liquidity support or guarantee of debt repayment from the group, although the entity contributes only a modest share of assets, revenue and profit of the group or deviates somewhat from the group's strategic positioning.</li> <li>The entity has diversified funding channels (e.g. listed on multiple exchanges), thus its access to funding is somewhat valuable to the group, and thus the group is unlikely to sell the entity.</li> </ul>
4-Low	<ul style="list-style-type: none"> <li>The group owns a small stake in the entity.</li> <li>The entity contributes a relatively small share of assets, revenue and profit of the group.</li> <li>The entity's main business deviates from the group's strategic positioning.</li> <li>The entity faces likelihood of being replaced by other entities within the group conducting similar businesses, due to its weak competitive position in the industry.</li> <li>The group may intend to sell the entity.</li> </ul>

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| 5- Limited | <ul style="list-style-type: none"> <li>• There's recent record of the group not supporting the entity.</li> <li>• The group has a clear intention to sell the entity.</li> <li>• Rescue would be meaningless as the entity's business risk profile and financial risk profile are poor, resulting in weak business sustainability.</li> </ul> |
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## Insulated Entities

Generally speaking, if the subsidiary's SACP is higher than the group's creditworthiness, the subsidiary's ICR may be higher than the group's credit quality when one or more of the following conditions are met; where the subsidiary's SACP is sufficiently high, the more conditions are met, the more notches the subsidiary's ICR is above the group's credit quality; or it could be even de-linked and not constrained by the creditworthiness of the group. Characteristics of such an insulated entity may include the following:

1. The entity's operation, financial performance and funding are highly independent from the group; there is a strong economic basis for the group to preserve the entity's credit strength; and a default of other group entities should not directly lead to a default of the insulated entity.
2. There are significant minority shareholders with an active interest; independent directors have effective influence on decision making; or there are strong legislative, regulatory or similar restrictions that would inhibit the entity from supporting the group to an extent that would unduly impair the entity's stand-alone creditworthiness.
3. The regulator or appropriate legislative body is expected to act, or has acted, to protect the credit quality of the entity by inhibiting the entity from supporting the group.
4. There are both: protective governance arrangements (such as independent directors with an effective influence on decision making); and either significant minority shareholders or joint venture partners, with an active economic interest.
5. The government or other governmental agency (i) has the authority to change ownership of the entity via existing legislation or other legal powers to separate it from a troubled group; and (ii) we expect it to act upon that right, based, for example, on a statement of intent to do so, or a track record of proactive stress management under similar circumstances.
6. We believe that the parent company doesn't exert control due to substantial creditor protections and as a result is unable to adversely impact the entity's credit quality.
7. The entity benefits from governance constraints that severely limit the influence of the parent, preventing it from determining matters such as strategy, material change of business, dividend payments and other material cash flows, and bankruptcy filings.
8. There is sufficient evidence that significant group credit stress has had minimal impact on the entity's credit profile, and that we do not expect it to have a material negative influence going forward.

## OTHER CONSIDERATIONS

This methodology is not intended to be an exhaustive list of all factors we may consider in our analysis. Where appropriate, we may apply additional and/or different, quantitative and/or qualitative, considerations in our analysis to reflect the circumstances of the analysis for a particular issuer, issue or security type. A rating committee may adjust the application of the methodology to reflect individual circumstances in our analysis.

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