MOODY'S
INVESTORS SERVICE

RATING METHODOLOGY

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Rating Methodology

Oilfield Services

This methodology is no longer in effect. For more information on rating methodologies used by Moody's Investor Services, visit https://ratings.moodys.com/rating-methodologies.

This rating methodology replaces the *Global Oilfield Services Industry Rating Methodology* published in May 2017. We have reordered and have made editorial updates to various sections of the methodology, and we have changed the presentation of the scorecard. These updates do not change our methodological approach.

Scope

This methodology applies to companies globally that are primarily* engaged in providing oilfield services. Oilfield services companies are a diverse group of companies that provide products and services used in the exploration and production of oil and natural gas, including companies involved in the manufacturing of equipment used by oilfield services companies. We segment this highly volatile and cyclical industry into three groups: service companies, contract drilling companies and offshore support companies.

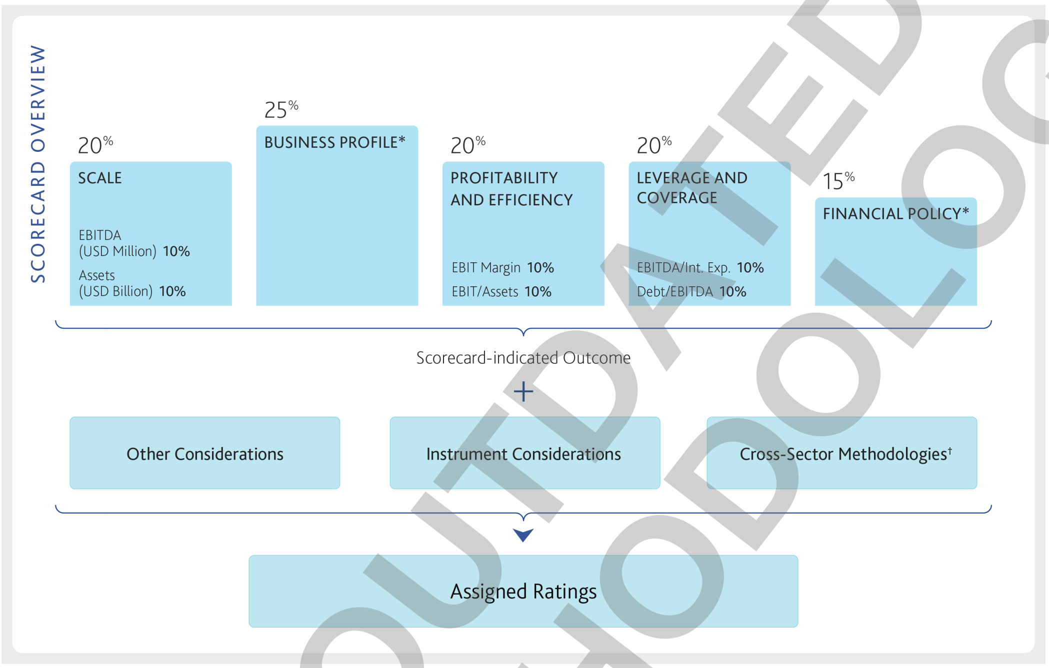
*The determination of a company's primary business is generally based on the preponderance of the company's business risks, which are usually proportionate to the company's revenues, earnings and cash flows.

Rating approach

In this rating methodology, we explain our general approach to assessing credit risk of issuers in the oilfield services industry globally, including qualitative and quantitative factors that are likely to affect rating outcomes in this sector. We seek to incorporate all material credit considerations in ratings and to take the most forward-looking perspective that visibility into these risks and mitigants permits.

The following schematic illustrates our general framework for the analysis of oilfield services companies, which includes the use of a scorecard.[1] The scorecard-indicated outcome is not expected to match the actual rating for each company. For more information, see the "Other considerations" and "Limitations" sections.

Exhibit 1
Illustration of the oilfield services methodology framework



* This factor has no sub-factors.
† Some of the methodological considerations described in one or more cross-sector rating methodologies may be relevant to ratings in this sector. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.
Source: Moody's Investors Service

Oilfield services scorecard

For general information about how we use the scorecard and for a discussion of scorecard mechanics, please see the "Using the scorecard to arrive at a scorecard-indicated outcome" section. The scorecard does not include or address every factor that a rating committee may consider in assigning ratings in this sector. Please see the "Other considerations" and "Limitations" sections.

Exhibit 2

Oilfield services scorecard

	SCALE (20%)		BUSINESS PROFILE (25%)		PROFITABILITY and EFFICIENCY (20%)		LEVERAGE and COVERAGE (20%)		FINANCIAL POLICY (15%)
	EBITDA (USD Million) (10%)	Assets (USD Billion) (10%)	Business Profile - Service Companies (25%)	Business Profile - Drilling Contractors and Offshore Support Companies (25%)	EBIT Margin (10%)	EBIT / Assets (10%)	EBITDA / Interest Expense (10%)	Debt / EBITDA[1] (10%)	Financial Policy (15%)
Aaa	≥ $20,000	≥ $100	Industry is not compatible with a Aaa business profile	Industry is not compatible with a Aaa business profile	≥ 65%	≥ 35%	≥ 30x	< 0.25x	Expected to have extremely conservative financial policies; very stable metrics; public commitment to very strong credit profile over the long term
Aa	$10,000 - $20,000	$50 - $100	Recognized global industry leader; multiple product lines incorporating superior technology and innovation; no EBITDA volatility throughout the industry cycle	Recognized global industry leader; diverse fleet of latest generation equipment; long track record of superior operational performance; no EBITDA volatility throughout the industry cycle	50% - 65%	24% - 35%	20x - 30x	0.25x - 1x	Expected to have very stable and conservative financial policies; stable metrics; minimal event risk that would cause a rating transition; public commitment to strong credit profile over the long term
A	$2,500 - $10,000	$20 - $50	Leading global competitor; multiple product lines incorporating leading-edge technology; little EBITDA volatility driven by industry cycles	Leading global competitor; diverse fleet of mostly latest generation equipment; long track record of above average operational expertise; little EBITDA volatility driven by industry cycles	35% - 50%	15% - 24%	10x - 20x	1x - 2x	Expected to have predictable financial policies that preserve creditor interests. Although modest event risk exists, the effect on leverage is likely to be small and temporary; strong commitment to a solid credit profile
Baa	$1,000 - $2,500	$8 - $20	Global competitor; diversified product offering; operating new and old equipment with above-average technology or benefiting from high barriers to entry; modest EBITDA volatility driven by industry cycles	Global competitor; diversified fleet of old and new generation assets; fleet has little EBITDA concentration risk; long track record of operational expertise; modest EBITDA volatility driven by industry cycles	20% - 35%	8% - 15%	7x - 10x	2x - 3x	Expected to have financial policies that balance the interest of creditors and shareholders; some risk that debt funded acquisitions or shareholder distributions could lead to a weaker credit profile
Ba	$400 - $1,000	$4 - $8	Geographically diversified competitor; multiple product offerings; average technology; competes based on price and operating track record; high EBITDA volatility driven by industry cycles	Geographically diversified competitor; fleet has modest EBITDA concentration risk; limited operating track record; high EBITDA volatility driven by industry cycles	10% - 20%	4.5% - 8%	4x - 7x	3x - 4x	Expected to have financial policies that tend to favor shareholders over creditors; above average financial risk resulting from shareholder distributions, acquisitions or other significant capital structure changes.
B	$100 - $400	$2 - $4	Competitor in more than one geographic market; one or two major product lines; weaker than average technology; competes based on price; newer company or short operating track record; very high EBITDA volatility driven by industry cycles	Competitor in more than one geographic market; fleet has high EBITDA concentration risk; older than average fleet; newer company or short operating track record; very high EBITDA volatility driven by industry cycles	5% - 10%	2% - 4.5%	2x - 4x	4x - 5.5x	Expected to have financial policies that favor shareholders over creditors; high financial risk resulting from shareholder distributions, acquisitions or other significant capital structure changes

	SCALE (20%)		BUSINESS PROFILE (25%)		PROFITABILITY and EFFICIENCY (20%)		LEVERAGE and COVERAGE (20%)		FINANCIAL POLICY (15%)
	EBITDA (USD Million) (10%)	Assets (USD Billion) (10%)	Business Profile - Service Companies (25%)	Business Profile - Drilling Contractors and Offshore Support Companies (25%)	EBIT Margin (10%)	EBIT / Assets (10%)	EBITDA / Interest Expense (10%)	Debt / EBITDA[1] (10%)	Financial Policy (15%)
Caa	\$25 - \$100	\$0.5 - \$2	Competitor in a single geographic market; high reliance on a single product offering; dated or unproven technology; EBITDA volatility throughout the industry cycle	Competitor in a single geographic market; fleet has very high EBITDA concentration risk; most of the fleet is nearing the end of its useful life or a start up with new equipment; weak operating history or very short operating track record; EBITDA volatility throughout the industry cycle	2% - 5%	0% - 2%	1x - 2x	5.5x - 7x	Expected to have financial policies that create elevated risk of debt restructuring in varied economic environments
Ca	< \$25	< \$0.5	Competitor in a single geographic market; high reliance on a single niche product; high product obsolescence risk; high EBITDA volatility throughout the industry cycle	Competitor in a single geographic market; fleet has extremely high EBITDA concentration risk; most of the fleet in imminent need of replacement and significant inventory of stacked equipment; high EBITDA volatility throughout the industry cycle	< 2%	< 0%	< 1x	≥ 7x	Expected to have financial policies that create elevated risk of debt restructuring even in healthy economic environments

[1] When debt is zero, the score is Aaa. When debt is positive and EBITDA is negative, the score is Ca.
Source: Moody's Investors Service

Discussion of the scorecard factors

In this section, we explain our general approach for scoring each scorecard factor or sub-factor, and we describe why they are meaningful as credit indicators.

Factor: Scale (20% weight)

Why it matters

Scale is an important indicator of the overall depth of a company's business and its success in attracting a variety of customers, as well as its resilience to shocks, such as sudden shifts in demand or rapid cost increases. Companies with larger scale generally have more flexibility to manage industry cycles and competitive forces. They also tend to have greater access to capital markets, providing the ability to undertake major capital projects.

How we assess it for the scorecard

Scale is measured (or estimated in the case of forward-looking expectations) using earnings before interest, taxes, depreciation and amortization (EBITDA) and total assets. For companies with significant working capital assets, we may adjust total assets to take into account expected changes in working capital resulting from seasonal or fluctuating industry conditions. Also, for companies with significant intangible assets such as goodwill, we consider the relative materiality of those values and their susceptibility to impairment and may adjust total assets.

Factor: Business Profile (25% weight)

Why it matters

The business profile of an oilfield services company is important because it greatly influences its ability to generate sustainable earnings and cash flows. A more stable business profile is one that can meet multiple customer needs and is less vulnerable to fluctuating industry conditions.

Companies with market leadership positions or protected niches often have pricing power to maintain cash flow in global or regional industry downturns. Conversely, companies that provide commonly provided services may face a high degree of competition and cash flow volatility. Some service contracts (i.e., backlog) can provide a degree of protection, but typically such contracts in the oilfield services industry extend for three years or less.

How we assess it for the scorecard

Scoring is based on a qualitative assessment of the degree of strength and defensibility of a company's market position and technical capabilities. Companies with stronger market positions, product line diversity, a diversified fleet of equipment, or greater geographic diversity, operating capabilities and technical expertise as well as cash flow stability throughout the industry cycle, typically receive higher scores for this factor.

Generally, companies that provide services to the production side of the oil and gas business are viewed more favorably than companies that rely on exploration and drilling spending, which can be much more volatile and the first to be cut in a falling commodity price environment. We also assess the extent of customer concentration and counterparty risk.

Factor: Profitability and Efficiency (20% weight)

Why it matters

Profits matter because they are needed to generate sustainable cash flow and maintain a competitive position. Most oilfield services companies have large investments in fixed assets that are necessary to maintain and grow market share. The fixed assets require on-going maintenance spending and need to be replaced on a regular basis to invest in new technology and to offer a competitive service. However, high fixed costs cause greater margin volatility in a cyclical industry. Companies with greater profitability and capital efficiency are better positioned to maintain investment levels throughout the industry cycle.

This factor comprises two sub-factors:

EBIT Margin

The ratio of earnings before interest and taxes to revenue (EBIT Margin) is an important indicator of profitability.

EBIT / Assets

The ratio of EBIT to assets (EBIT/Assets) is an indicator of capital efficiency and return on investment. A higher efficiency ratio indicates a greater ability to maintain investment levels in an oilfield services company's fleet and equipment, which often is an important differentiating factor for customers.

How we assess it for the scorecard
Scoring for this factor is based on two sub-factors: EBIT Margin and EBIT/Assets.

EBIT MARGIN:

The numerator is EBIT, and the denominator is revenue.

EBIT / ASSETS:

The numerator is EBIT, and the denominator is assets.

Factor: Leverage and Coverage (20% weight)

Why it matters
Financial leverage and coverage measures are indicators of a company's financial flexibility and long-term viability. Financial flexibility is critical to oilfield services companies to maintain their fleets and service equipment and to have access to the capital markets for large capital investments that are needed from time to time.

The factor comprises two sub-factors:

EBITDA / Interest Expense

The ratio of earnings before interest, taxes, depreciation and amortization to interest expense (EBITDA/Interest Expense) is an indicator of a company's ability to meet its interest obligations.

Debt / EBITDA

The ratio of total debt to EBITDA (Debt/EBITDA) is an indicator of debt serviceability and financial leverage. The ratio is commonly used in this sector as a proxy for comparative financial strength.

How we assess it for the scorecard
Scoring for this factor is based on two sub-factors: EBITDA/Interest and Debt/EBITDA.

EBITDA / INTEREST EXPENSE:

The numerator is EBITDA, and the denominator is interest expense.

DEBT / EBITDA:

The numerator is total debt, and the denominator is EBITDA. For seismic services companies that have a multi-client seismic data library, we use EBITDA minus multi-client capital expenditures.

Factor: Financial Policy (15% weight)

Why it matters
Management and board tolerance for financial risk is a rating determinant because it directly affects debt levels, credit quality, and the risk of adverse changes in financing and capital structure.

Our assessment of financial policies includes the perceived tolerance of a company's governing board and management for financial risk and the future direction for the company's capital structure. Considerations include a company's public commitments in this area, its track record for adhering to commitments, and our views on the ability of the company to achieve its targets.

Financial risk tolerance serves as a guidepost to investment and capital allocation. An expectation that management will be committed to sustaining an improved credit profile is often necessary to support an upgrade. For example, we may not upgrade a company that has built flexibility within its rating category if we believe the company will use that flexibility to fund a strategic acquisition, cash distribution to shareholders, spin-off, or other leveraging transaction. Conversely, a company's credit rating may be better able to withstand a moderate leveraging event if management places a high priority on returning credit metrics to pre-transaction levels and has consistently demonstrated such behavior through prior actions.

Oilfield services companies have historically used acquisitions to spur revenue growth, expand capabilities and product offerings, consolidate market positions, and replace and upgrade equipment. The impact of an acquisition on a rating i depends on the company's existing capital structure and the degree to which it is changed by the acquisition.

In the past, oilfield services companies had aggressively replaced equipment in certain markets including offshore drilling rigs and pressure pumping equipment. Shareholder activists took notice of top-of-the-cycle profitability and demanded increased shareholder payouts. The way oilfield services companies responded to these events provides insight into their financial policies. We consider this information in our rating analysis as an indication of each company's willingness to enhance shareholder returns by increasing risk to the debt holders.

How we assess it for the scorecard

We assess the company's desired capital structure or targeted credit profile, history of prior actions and adherence to its commitments. Attention is paid to management's operating performance and use of cash flow through different phases of industry and economic cycles. Also of interest is the way in which management responds to key events, such as changes in the credit markets and liquidity environment, legal actions, competitive challenges, and regulatory pressures.

Management's appetite for M&A activity is assessed with a focus on the type of transactions (i.e., core competency or new business) and funding decisions. Frequency and materiality of acquisitions and previous financing choices are evaluated. A history of debt-financed or creditor-unfriendly acquisitions will generally result in a lower score for this factor.

We also consider a company and its owners' past record of balancing shareholder returns and debtholders' interests. A track record of favoring shareholder returns at the expense of debtholders is likely to be viewed negatively in scoring this factor.

Other considerations

Ratings may reflect consideration of additional factors that are not in the scorecard, usually because the factor's credit importance varies widely among the issuers in the sector or because the factor may be important only under certain circumstances or for a subset of issuers. Such factors include financial controls and the quality of financial reporting; corporate legal structure; the quality and experience of management; assessments of corporate governance as well as environmental and social considerations; exposure to uncertain licensing regimes; and possible government interference in some countries. Regulatory, litigation, liquidity, technology and reputational risk as well as changes to consumer and business spending patterns, competitor strategies and macroeconomic trends also affect ratings. Following are some examples of additional considerations that may be reflected in our ratings and that may cause ratings to be different from scorecard-indicated outcomes.

Management Strategy

The quality of management is an important factor supporting a company's credit strength. Assessing the execution of business plans over time can be helpful in assessing management's business strategies, policies and philosophies as well as in evaluating management performance relative to performance of competitors and our projections. Management's track record of adhering to stated plans, commitments and guidelines provides insight into management's likely future performance, including in stressed situations.

Environmental, Social and Governance Considerations

Environmental, social and governance (ESG) considerations may affect the ratings of issuers in the oilfield services industry. For information about our approach to assessing ESG issues, please see our methodology that describes our general principles for assessing these risks.[2]

Among the areas of focus in corporate governance, for example, are audit committee financial expertise, the incentives created by executive compensation packages, related party transactions, interactions with outside auditors, and ownership structure.

Financial Controls

We rely on the accuracy of audited financial statements to assign and monitor ratings in this sector. The quality of financial statements may be influenced by internal controls, including the proper tone at the top, centralized operations and consistency in accounting policies and procedures. Auditor's reports on the effectiveness of internal controls, auditor's comments in financial reports and unusual restatements of financial statements or delays in regulatory filings may indicate weaknesses in internal controls.

Liquidity

Liquidity is an important rating consideration for all oilfield services companies, although it may not have a substantial impact in discriminating between two issuers with a similar credit profile. Liquidity can be particularly important for non-investment grade issuers where companies typically have less operating and financial flexibility, and ratings can be heavily affected by extremely weak liquidity. We form an opinion on likely near-term liquidity requirements from the perspective of both sources and uses of cash. For more details on our approach, please see our liquidity cross-sector methodology.[3]

Event Risk

We also recognize the possibility that an unexpected event could cause a sudden and sharp decline in a company's fundamental creditworthiness, which may cause actual ratings to be lower than the scorecard-indicated outcome. Event risks — which are varied and can range from leveraged recapitalizations to sudden regulatory changes or liabilities from an accident — can overwhelm even a stable, well-capitalized firm. Some other types of event risks include M&A, asset sales, spin-offs, capital restructuring programs, litigation, pandemics, significant cyber-crime events and shareholder distributions.

Parental Support

Ownership can provide ratings lift for a particular company in the oilfield services sector if it is owned by a highly rated owner(s) and is viewed to be of strategic importance to those owners. In our analysis of parental support, we consider whether the parent has the financial capacity and strategic incentives to provide support to the issuer in times of stress or financial need (e.g., a major capital investment or advantaged operating agreement), or has already done so in the past. Conversely, if the parent puts a high dividend burden on the issuer, which in turn reduces its flexibility, the ratings would reflect this risk.

Government-related issuers may receive ratings uplift due to expected government support. However, for certain issuers, government ownership can have a negative impact on the underlying Baseline Credit Assessment.[4] For example, price controls, onerous taxation and high distributions can have a negative effect on an issuer's underlying credit profile.

Using the scorecard to arrive at a scorecard-indicated outcome

1. Measurement or estimation of factors in the scorecard

In the "Discussion of the scorecard factors" section, we explain our analytical approach for scoring each scorecard factor or sub-factor,[5] and we describe why they are meaningful as credit indicators.

The information used in assessing the sub-factors is generally found in or calculated from information in the company's financial statements or regulatory filings, derived from other observations or estimated by Moody's analysts. We may also incorporate non-public information.

Our ratings are forward-looking and reflect our expectations for future financial and operating performance. However, historical results are helpful in understanding patterns and trends of a company's performance as well as for peer comparisons. Financial ratios,[6] unless otherwise indicated, are typically calculated based on an annual or 12-month period. However, the factors in the scorecard can be assessed using various time periods. For example, rating committees may find it analytically useful to examine both historical and expected future performance for periods of several years or more.

All of the quantitative credit metrics incorporate our standard adjustments[7] to income statement, cash flow statement and balance sheet amounts for items such as underfunded pension obligations and operating leases. We may also make other analytical adjustments that are specific to a particular company.

2. Mapping scorecard factors to a numeric score

After estimating or calculating each factor or sub-factor, each outcome is mapped to a broad Moody's rating category (Aaa, Aa, A, Baa, Ba, B, Caa, or Ca, also called alpha categories) and to a numeric score.

Qualitative factors are scored based on the description by broad rating category in the scorecard. The numeric value of each alpha score is based on the scale below.

Exhibit 3

Aaa	Aa	A	Baa	Ba	B	Caa	Ca
1	3	6	9	12	15	18	20

Source: Moody's Investors Service

3. Determining the overall scorecard-indicated outcome

The numeric score for each sub-factor (or each factor, when the factor has no sub-factors) is multiplied by the weight for that sub-factor (or factor), with the results then summed to produce an aggregate numeric score. The aggregate numeric score is then mapped back to a scorecard-indicated outcome based on the ranges in the table below.

Exhibit 4

Scorecard-indicated outcome

Scorecard-indicated outcome	Aggregate numeric score
Aaa	x < 1.5
Aa1	1.5 ≤ x < 2.5
Aa2	2.5 ≤ x < 3.5
Aa3	3.5 ≤ x < 4.5
A1	4.5 ≤ x < 5.5
A2	5.5 ≤ x < 6.5
A3	6.5 ≤ x < 7.5
Baa1	7.5 ≤ x < 8.5
Baa2	8.5 ≤ x < 9.5
Baa3	9.5 ≤ x < 10.5
Ba1	10.5 ≤ x < 11.5
Ba2	11.5 ≤ x < 12.5
Ba3	12.5 ≤ x < 13.5
B1	13.5 ≤ x < 14.5
B2	14.5 ≤ x < 15.5
B3	15.5 ≤ x < 16.5
Caa1	16.5 ≤ x < 17.5
Caa2	17.5 ≤ x < 18.5
Caa3	18.5 ≤ x < 19.5
Ca	x ≥ 19.5

Source: Moody's Investors Service

For example, an issuer with an aggregate numeric score of 11.7 would have a Ba2 scorecard-indicated outcome.

In general, the scorecard-indicated outcome is oriented to the corporate family rating (CFR) for speculative-grade issuers and the senior unsecured rating for investment-grade issuers. For issuers that benefit from rating uplift from parental support, government ownership or other institutional support, we consider the underlying credit strength or Baseline Credit Assessment for comparison to the scorecard-indicated outcome. For an explanation of the Baseline Credit Assessment, please refer to *Rating Symbols and Definitions* and to our cross-sector methodology for government-related issuers.[8]

Assigning issuer-level and instrument-level ratings

After considering the scorecard-indicated outcome, other considerations and relevant cross-sector methodologies, we typically assign a CFR to speculative-grade issuers or a senior unsecured rating for investment-grade issuers. For issuers that benefit from rating uplift from government ownership, we may assign a Baseline Credit Assessment.[9]

Individual debt instrument ratings may be notched up or down from the CFR or the senior unsecured rating to reflect our assessment of differences in expected loss related to an instrument's seniority level and collateral. The documents that provide broad guidance for such notching decisions are the rating methodology on loss given default for speculative-grade non-financial companies, the methodology for notching corporate instrument ratings based on differences in security and priority of claim, and the methodology for assigning short-term ratings.[10]

Key rating assumptions

For information about key rating assumptions that apply to methodologies generally, please see *Rating Symbols and Definitions*.[11]

Limitations

In the preceding sections, we have discussed the scorecard factors and many of the other considerations that may be important in assigning ratings. In this section, we discuss limitations that pertain to the scorecard and to the overall rating methodology.

Limitations of the scorecard

There are various reasons why scorecard-indicated outcomes may not map closely to actual ratings.

The scorecard in this rating methodology is a relatively simple reference tool that can be used in most cases to approximate credit profiles of companies in this sector and to explain, in summary form, many of the factors that are generally most important in assigning ratings to these companies. Credit loss and recovery considerations, which are typically more important as an issuer gets closer to default, may not be fully captured in the scorecard. The scorecard is also limited by its upper and lower bounds, causing scorecard-indicated outcomes to be less likely to align with ratings for issuers at the upper and lower ends of the rating scale.

The weights for each factor and sub-factor in the scorecard represent an approximation of their importance for rating decisions across the sector, but the actual importance of a particular factor may vary substantially based on an individual company's circumstances.

Factors that are outside the scorecard, including those discussed above in the "Other considerations" section, may be important for ratings, and their relative importance may also vary from company to company. In addition, certain broad methodological considerations described in one or more cross-sector rating methodologies may be relevant to ratings in this sector.[12] Examples of such considerations include the following: how sovereign credit quality affects non-sovereign issuers, the assessment of credit support from other entities, the relative ranking of different classes of debt and hybrid securities, and the assignment of short-term ratings.

We may use the scorecard over various historical or forward-looking time periods. Furthermore, in our ratings we often incorporate directional views of risks and mitigants in a qualitative way.

General limitations of the methodology

This methodology document does not include an exhaustive description of all factors that we may consider in assigning ratings in this sector. Companies in the sector may face new risks or new combinations of risks, and they may develop new strategies to mitigate risk. We seek to incorporate all material credit considerations in ratings and to take the most forward-looking perspective that visibility into these risks and mitigants permits.

Ratings reflect our expectations for an issuer's future performance; however, as the forward horizon lengthens, uncertainty increases and the utility of precise estimates, as scorecard inputs or in other considerations, typically diminishes. Our forward-looking opinions are based on assumptions that may prove, in hindsight, to have been incorrect. Reasons for this could include unanticipated changes in any of the following: the macroeconomic environment, general financial market conditions, industry competition, disruptive technology, or regulatory and legal actions. In any case, predicting the future is subject to substantial uncertainty.

Moody's related publications

Credit ratings are primarily determined through the application of sector credit rating methodologies. Certain broad methodological considerations (described in one or more cross-sector rating methodologies) may also be relevant to the determination of credit ratings of issuers and instruments. 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.

Moody's Basic Definitions for Credit Statistics (User's Guide) can be found here.

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Endnotes

1 In our methodologies and research, the terms "scorecard" and "grid" are used interchangeably.

2 A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

3 A link to a list of our cross-sector methodologies can be found in the "Moody's related publications" section.

4 For an explanation of the Baseline Credit Assessment, please refer to *Rating Symbols and Definitions* and to our cross-sector methodology for government-related issuers. A link to a list of our sector and cross-sector methodologies and a link to *Rating Symbols and Definitions* can be found in the "Moody's related publications" section.

5 When a factor comprises sub-factors, we score at the sub-factor level. Some factors do not have sub-factors, in which case we score at the factor level.

6 For definitions of our most common ratio terms, please see *Moody's Basic Definitions for Credit Statistics (User's Guide)*. A link can be found in the "Moody's related publications" section.

7 For an explanation of our standard adjustments, please see the cross-sector methodology that describes our financial statement adjustments in the analysis of non-financial corporations.

8 A link to a list of our sector and cross-sector methodologies and a link to *Rating Symbols and Definitions* can be found in the "Moody's related publications" section.

9 For an explanation of the Baseline Credit Assessment, please refer to *Rating Symbols and Definitions* and to our cross-sector methodology for government-related issuers. A link to a list of our sector and cross-sector methodologies and a link to *Rating Symbols and Definitions* can be found in the "Moody's related publications" section.

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11 A link to *Rating Symbols and Definitions* can be found in the "Moody's related publications" section.

12 A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

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.

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