

# MOODY'S

## INVESTORS SERVICE

### RATING METHODOLOGY

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## Rating Methodology Restaurants

This rating methodology replaces the *Restaurant Industry* methodology published in January 2018. We have reordered and have made editorial updates to various sections of the methodology, and we have changed the presentation of the scorecard. We have removed outdated information. These updates do not change our methodological approach.

### Scope

This methodology applies to companies globally that are primarily\* engaged in owning, operating or franchising restaurants. Restaurant companies rated using this methodology include: (i) companies that predominantly own and operate restaurants; (ii) companies that predominantly franchise restaurants; and (iii) companies that both own and franchise restaurants.

\*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.

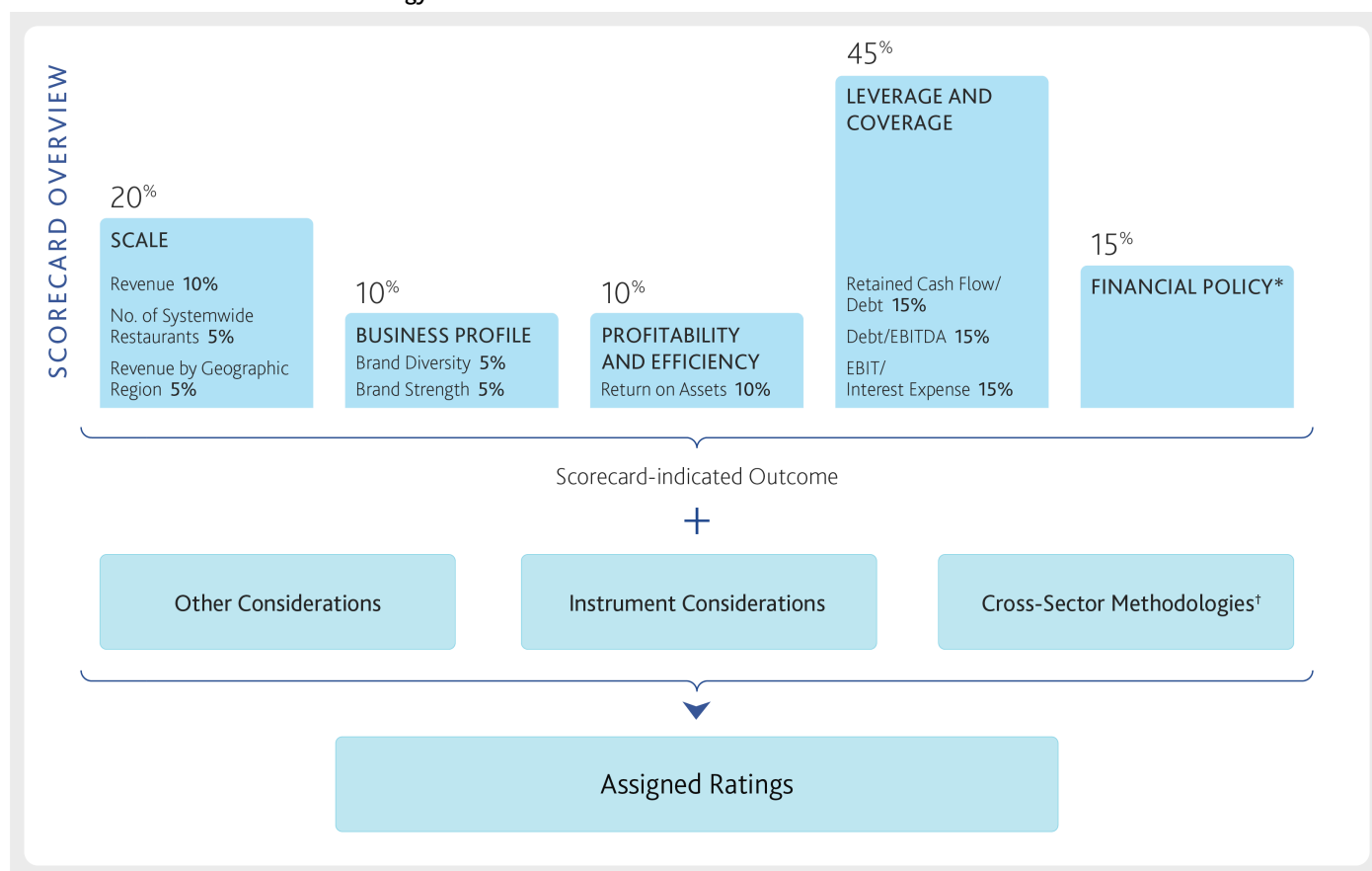
## Rating approach

In this rating methodology, we explain our general approach to assessing credit risk of issuers in the restaurant industry globally, including the 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 restaurant companies, which includes the use of a scorecard.<sup>1</sup> 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 restaurant 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

## Restaurant 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

### Restaurant scorecard

		SCALE (20%)		BUSINESS PROFILE (10%)		PROFITABILITY and EFFICIENCY (10%)	LEVERAGE and COVERAGE (45%)		FINANCIAL POLICY (15%)	
	Revenue (USD Billion) (10%)	# of Systemwide Restaurants (5%)	Revenue by Geographic Region (5%)	Brand Diversity (5%)	Brand Strength (5%)	ROA (NPATBUI / Avg. Assets) (10%)	RCF / Debt (15%)	Debt / EBITDA <sup>(1)</sup> (15%)	EBIT / Interest Expense (15%)	Financial Policy (15%)
Aaa	≥ \$40	≥ 55,000	Highly international with no single continent representing a majority of revenues.	Multiple brands (> 3) each with significant scale, equal in weight, differentiated product offering; day-part divisions that are equally weighted through all periods; and varied menu offering.	Expected to have solid same store sales ("SSS") performance at all concepts, driven equally by regular increases in average check and steadily increasing traffic, along with a consistently strong product pipeline that have always resulted in successful new product offerings.	≥ 15%	≥ 55%	< 1x	≥ 12x	Expected to have extremely conservative financial policies; very stable metrics; public commitment to very strong credit profile over the long term.
Aa	\$23 - \$40	30,000 - 55,000	No single country represents a majority of revenues.	Multiple concepts (at least 3) each with significant scale, equal weight, and differentiated product offerings as well as day-part divisions that are more weighted towards two periods and menu offering that is varied; or a single brand with a leading market position within the industry, well diversified day-part throughout all periods and a varied menu offering.	Expected to have positive SSS at all concepts, driven by both average check and traffic, along with a strong product pipeline that have consistently resulted in successful new product offerings. Expected to have modest volatility across economic cycles.	11% - 15%	45% - 55%	1x - 2x	8x - 12x	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	\$11 - \$23	15,000 - 30,000	A single country represents the majority of revenues while international operations are substantial.	Multiple concepts (at least 3) each with sizeable scale, differentiated product offering, and relatively equal weight; or a single brand with a leading market position within the industry, day-part division that covers most day parts but is more weighted towards three periods but not equally weighted, and a menu offering that is varied.	Expected to have positive SSS at the majority of concepts, driven by both average check and traffic, along with a strong product pipeline that have resulted in successful new product offerings. Expected to have modest volatility across economic cycles.	7.5% - 11%	35% - 45%	2x - 3x	5x - 8x	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.

SCALE (20%)			BUSINESS PROFILE (10%)			PROFITABILITY and EFFICIENCY (10%)	LEVERAGE and COVERAGE (45%)		FINANCIAL POLICY (15%)	
Revenue (USD Billion) (10%)	# of Systemwide Restaurants (5%)	Revenue by Geographic Region (5%)	Brand Diversity (5%)	Brand Strength (5%)	ROA (NPATBUI / Avg. Assets) (10%)	RCF / Debt (15%)	Debt / EBITDA <sup>[1]</sup> (15%)	EBIT / Interest Expense (15%)	Financial Policy (15%)	
Baa	\$5 - \$11	5,000 - 15,000	A single country represents the substantial majority of revenues although international operations are material. Should have full national coverage.	Multiple concepts (at least 2) each with sizeable scale, differentiated product offerings, but relatively un-equal weight; or a single brand with a leading market position within the industry, multiple day-parts equally weighted towards at least two periods, and menu offering that is varied.	Positive SSS at the majority of concepts with average check being the primary driver, although traffic remains consistently positive. A competitive product pipeline that yields good success with new offerings. Expected to have modest volatility across economic cycles.	5% - 7.5%	25% - 35%	3x - 4x	3x - 5x	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	\$2.25 - \$5	1,500 - 5,000	A single country represents the substantial majority of revenues although international operations are meaningful.	Multiple concepts (at least 2) each with adequate scale and differentiated product offerings, although un-equal weight; or a single brand with a leading market position in its respective category, with multiple day-parts more weighted towards two periods, and menu offering that is varied.	Positive SSS although traffic patterns are more volatile and can migrate into negative territory for periods of time. Competitive new product pipeline that yields relatively good success with new product offerings.	2.5% - 5%	15% - 25%	4x - 5x	2x - 3x	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	\$0.5 - \$2.25	400 - 1,500	The majority of restaurants reside within multiple regions in a single country.	Could have multiple concepts although a single brand with a competitive position within its respective category is the dominant driver of the business with multiple but un-equal day-parts focused more towards two periods with a menu offering that is varied.	SSS are more volatile with weak traffic patterns that mitigate pricing power and result in relatively weak market metrics overall. The product pipeline is adequate but success of new product offerings is mixed.	1% - 2.5%	5% - 15%	5x - 6.5x	1x - 2x	Expected to have financial policies that favor shareholders over creditors; high financial risk resulting from shareholder distributions, acquisitions or other significant capital structure changes.
Caa	\$0.25 - \$0.5	100 - 400	The majority of restaurants are widely located within a single region.	Single concept with a limited product offering and concentrated day-part.	SSS are weak with negative traffic patterns for extended periods eliminating pricing power. Weak product pipeline and limited success with new offerings.	0% - 1%	0% - 5%	6.5x - 8x	0.5x - 1x	Expected to have financial policies that create elevated risk of debt restructuring in varied economic environments.
Ca	< \$0.25	< 100	The majority of restaurants are narrowly located within a portion of a single region.	Single concept with narrow product offering and single day part.	Extended period of negative SSS with no expected recovery in the near term. There has been a significant decline in the number of systemwide restaurants.	< 0%	< 0%	≥ 8x	< 0.5x	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

## Sector overview

Restaurant companies pursue different business models, which influences credit quality because the level of earnings volatility, capital and investment intensity, margins and asset coverage vary in each model. In this section, we describe the main business models for illustrative purposes.

### Many companies in the restaurant sector fit within one of three business models

#### Pure Franchise-based Model

- » Low absolute level of revenue and operating profit – With franchisee fees and royalty rates in the low-to-mid-single-digit percentage range, the absolute level of revenues is significantly smaller than systemwide operations would indicate.
- » High operating margins – With minimal, if any, costs associated with the royalty or franchise fee the operating margins are exceptionally high.
- » Low capital expenditure requirements – The absence of any ownership interest in the actual restaurants eliminates the need for any capital expenditures for maintenance, refurbishment, or new unit expansion, which is all borne by the franchisee or affiliate base.
- » Revenue stream is less volatile – Since the revenue stream is based on a percentage of a franchisee's gross revenues and not its earnings, operating performance associated with a franchised based model tends to be less volatile.
- » Low tangible asset value – The non-owner / operator model does not require any investment in restaurants or equipment and as a result there is no significant tangible asset value associated with the pure franchise model nor is there the opportunity to generate alternate liquidity from re-franchising units.

#### Restaurant Owner / Operator Model

- » Revenue generation and operating profit is reflective of all systemwide sales and as a result is considerably larger versus a franchisee based model which only represents a small percentage.
- » Lower margins – Despite the higher level of absolute operating income the company incurs all costs associated with operating the individual restaurants and as a result margins are more reflective of this higher cost structure.
- » Capital intensive – The owner/operator bears the burden of all capex required to support a base of restaurants including ongoing unit maintenance, refurbishment, re-builds, and new unit expansion.
- » Asset value – Owner / operator models tend to have a mixture of owned and leased property and equipment which provide a level of tangible asset coverage. They also usually have some alternate sources of liquidity through the re-franchising of owned units.
- » Higher level of volatility – This model is fully exposed to the gyrations of consumer habits and the impact of commodity cycles.

#### Combination Model

- » In most cases, companies in the quick service restaurant (QSR) sector and fast casual sector use a combination of both models with a heavier focus on franchised restaurants.
- » Most of the large QSRs have adopted a business model in which they are targeting ownership of total system-wide restaurants at under 25% and some much lower than this.
- » In the case of casual dining companies, the majority of units are owned although a number of companies have recently changed this practice and have begun re-franchising programs albeit the percentage is much smaller than QSRs.

### General Characteristics Common Across the Restaurant Industry

- » There are several characteristics that apply to the majority of restaurant companies, although there are always some exceptions.

- » Minimal working capital requirements – Given the cash based nature of sales and the perishable nature of inventory, working capital requirements are minimal for most companies. With the majority of transactions between the consumer and restaurant settled with either cash or credit card, the change in a company's account receivable balance is generally modest. Inventory changes are also marginal due to the perishable nature of most inventory items.
- » The most common industry practice is to use operating leases rather than ownership of real estate, which may result in a standard adjustment to recognize the debt equivalent of leases. Please see our cross-sector methodology that discusses financial-statement adjustments for non-financial corporations.<sup>2</sup>
- » Industry measures of performance:
  - Same store sales – Calculated as the percentage change in sales of those restaurants opened for more than thirteen months and are comprised of the percentage change in average check, product mix, and traffic or transactions. This industry standard is one of the key measures of a company's operating performance although the components are more telling than the aggregate same-store sales percentage change.
  - Average unit volumes (AUV) – A standard industry measure of performance although the bands surrounding AUV and the types of units incorporated are also informative.
  - Restaurant margins – An indicator of operating performance at the restaurant level before the allocation of corporate overhead and other non-restaurant specific costs.

## 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 and diversification are important indicators of a company's restaurant distribution, brand recognition, and competitive position. These characteristics are important because together they provide insight into a company's ability to drive revenues by increasing the average check amount, adding net new restaurants to its system, and attracting strong affiliates and franchisees. Greater scale, by extension, implies higher brand recognition and ability to expand – which is important given the competitive nature of the restaurant industry. Scale enables a company to gain better control of its purchasing and distribution channels, establish a more powerful market position, and leverage fixed costs. For smaller companies in regional markets, we consider absolute scale as well as regional scale.

#### How we assess it for the scorecard

Scale is measured (or estimated in the case of forward-looking expectations) using three sub-factors: Revenue; Number of Systemwide Restaurants; and Revenue by Geographic Region.

#### REVENUE:

We use total reported revenue in billions of US dollars. We include revenues generated from company owned and operated restaurants in addition to royalty, franchise, and initial fees from affiliates and franchisees, as well as rental income.

#### NUMBER OF SYSTEMWIDE RESTAURANTS:

Systemwide restaurants include those owned and operated by the company as well as those franchised and affiliated.

#### REVENUE BY GEOGRAPHIC REGION:

The scoring for this sub-factor is based on our qualitative assessment of the concentration of operating performance within a country as well as the percentage derived from the various regions.

## Factor: Business Profile (10% weight)

### Why it matters

The business profile of a restaurant company is important because it greatly influences its ability to generate sustainable earnings and operating cash flows. In the restaurant industry, companies that are characterized as having strong brand recognition often have a higher level of profitable sales by maintaining a steady improvement in traffic and allowing for sustainable pricing power. This tends to result in higher unit volumes and attract franchisees and affiliates that are more financially secure.

Maintaining or building a strong brand in the restaurant industry requires a company to provide a better guest experience or perceived value, which is defined in part by being convenient and also by having a varied menu that offers quality products at reasonable prices in an appealing environment. Overall, companies must create in customers the belief that they provide better value versus the competition.

This factor has two sub-factors:

#### *Brand Diversity*

Diversification through multiple brands focused on different concepts, each narrower in scope but allowing for a more in-depth product offering, help mitigate revenue volatility as consumer tastes change or evolve over time. A more diverse day part distribution not only increases total revenue generation but also helps operating margins by better leveraging a restaurant's fixed cost infrastructure.

#### *Brand Strength*

Brand strength is an important indicator of a restaurant's ability to attract and retain customers. Same-store sales and its various components provide indications of how consumers perceive a brand as well as the frequency and success of new products. They are a widely used indicator of a company's operating performance and its brand strength, although the components of same-store sales are often more telling than the aggregate. A company's ability to increase its average check amount while maintaining positive traffic is one indicator of a company's pricing power and brand strength. However, positive same-store sales can also mask an underlying deterioration of brand strength in situations where, for an extended period, the percentage increase in the average check amount exceeds the percentage decline in traffic. Although this relationship of positive average check and negative traffic can last for some time, a company's ability to raise prices is limited and can exacerbate traffic declines.

### How we assess it for the scorecard

Scoring for this factor is based on two sub-factors: Brand Diversity; and Brand Strength.

#### **BRAND DIVERSITY:**

The scoring for this sub-factor is based on our qualitative assessment of the diversification of the revenue stream. We consider the number of brands or concepts, and the diversity of a company's product offering.

#### **BRAND STRENGTH:**

The scoring for this sub-factor is based on our qualitative assessment of same-store sales.

## Factor: Profitability and Efficiency (10% weight)

### Why it matters

Profitability measures are important indicators of an issuer's ability to cover all ongoing operating, and non-operating expenses and generate cash flow to support investment and capital spending and distributions to shareholders.

### How we assess it for the scorecard

#### **RETURN ON ASSETS:**

We use return on assets, which is the ratio of net profit after tax before unusual items (NPATBUI) to average assets.

**Factor: Leverage and Coverage (45% weight)****Why it matters**

Financial leverage and coverage measures are indicators of a company's financial flexibility and long-term viability.

The factor comprises three sub-factors:

*RCF / Debt*

The ratio of retained cash flow to debt (RCF/Debt) is an indicator of a company's cash generation (before working capital movements and capital expenditures, and after dividend payments) relative to its debt burden.

*Debt / EBITDA*

The ratio of total debt to earnings before interest, taxes, depreciation and amortization (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.

*EBIT / Interest Expense*

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

**How we assess it for the scorecard**

Scoring for this factor is based on three sub-factors: RCF/Debt; Debt/EBITDA; and EBIT/Interest Expense.

**RCF / DEBT:**

The numerator is retained cash flow, and the denominator is total debt.

**DEBT / EBITDA:**

The numerator is total debt, and the denominator is EBITDA.

**EBIT / INTEREST EXPENSE:**

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

**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 for 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 the commitment to do so through prior actions.

**How we assess it for the scorecard**

We assess the issuer'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 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 credit-transforming acquisitions will typically 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 and 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 restaurant sector. For information about our approach to assessing ESG issues, please see our methodology that describes our general principles for assessing these risks.<sup>3</sup>

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. Auditors' reports on the effectiveness of internal controls, auditors' 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 restaurant 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 restaurant companies where issuers typically have less operating and financial flexibility, and ratings can be 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.<sup>4</sup>

#### Event Risk

We also recognize the possibility that an unexpected event could cause a sudden and sharp decline in an issuer'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 recapitalization to 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 restaurant 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.<sup>5</sup> 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,<sup>6</sup> 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,<sup>7</sup> 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<sup>8</sup> 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	$1.5 \leq x < 2.5$
Aa2	$2.5 \leq x < 3.5$
Aa3	$3.5 \leq x < 4.5$
A1	$4.5 \leq x < 5.5$
A2	$5.5 \leq x < 6.5$
A3	$6.5 \leq x < 7.5$
Baa1	$7.5 \leq x < 8.5$
Baa2	$8.5 \leq x < 9.5$
Baa3	$9.5 \leq x < 10.5$
Ba1	$10.5 \leq x < 11.5$
Ba2	$11.5 \leq x < 12.5$
Ba3	$12.5 \leq x < 13.5$
B1	$13.5 \leq x < 14.5$
B2	$14.5 \leq x < 15.5$
B3	$15.5 \leq x < 16.5$
Caa1	$16.5 \leq x < 17.5$
Caa2	$17.5 \leq x < 18.5$
Caa3	$18.5 \leq x < 19.5$
Ca	$x \geq 19.5$

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.<sup>9</sup>

### 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.<sup>10</sup>

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.<sup>11</sup>

### Key rating assumptions

For information about key rating assumptions that apply to methodologies generally, please see *Rating Symbols and Definitions*.<sup>12</sup>

### 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.<sup>13</sup> 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 link to 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 sector and cross-sector methodologies can be found in the "Moody's related publications" section.
- [4](#) A link to a list of our cross-sector methodologies can be found in the "Moody's related publications" section.
- [5](#) 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.
- [6](#) 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.
- [7](#) 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.
- [8](#) 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.
- [9](#) 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.
- [10](#) 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.
- [11](#) A link to a list of our sector and cross-sector rating methodologies can be found in the "Moody's related publications" section.
- [12](#) A link to *Rating Symbols and Definitions* can be found in the "Moody's related publications" section.
- [13](#) A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

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