

# MOODY'S

## INVESTORS SERVICE

### RATING METHODOLOGY

23 June 2022

#### TABLE OF CONTENTS

Scope	1
Rating approach	2
Consumer packaged goods scorecard	3
Discussion of the scorecard factors	5
Other considerations	8
Using the scorecard to arrive at a scorecard-indicated outcome	11
Assigning issuer-level and instrument-level ratings	13
Key rating assumptions	13
Limitations	13
Moody's related publications	15

#### Analyst Contacts

Linda Montag +1.212.553.1336  
Senior Vice President  
linda.montag@moodys.com

Maria Iarriccio +1.212.553.1354  
VP-Sr Credit Officer  
maria.iarriccio@moodys.com

Paolo Leschiutta +39.02.9148.1140  
Senior Vice President  
paolo.leschiutta@moodys.com

Lorenzo Re +39.02.9148.1123  
VP-Senior Analyst  
lorenzo.re@moodys.com

#### CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

## Rating Methodology Consumer Packaged Goods

This rating methodology replaces the *Consumer Packaged Goods Methodology* published in February 2020. 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 the production and sale of consumer packaged goods under their own brands. Consumer packaged goods companies rated under this methodology source or manufacture products for distribution to consumers through third parties, such as retail stores and online websites. Consumer packaged goods comprise a wide range of products, including packaged food, pet-care products, toys, tobacco, cosmetics, hair care, paper products and cleaning products.

Companies that are primarily engaged in the production and sale of durable goods, alcoholic beverages, and soft beverages are rated under our methodologies for durable goods, alcoholic beverages, and soft beverages, respectively.<sup>1</sup> Companies that are primarily engaged in producing and processing animal protein and agricultural products are rated under our protein and agriculture methodology.<sup>2</sup>

\*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.

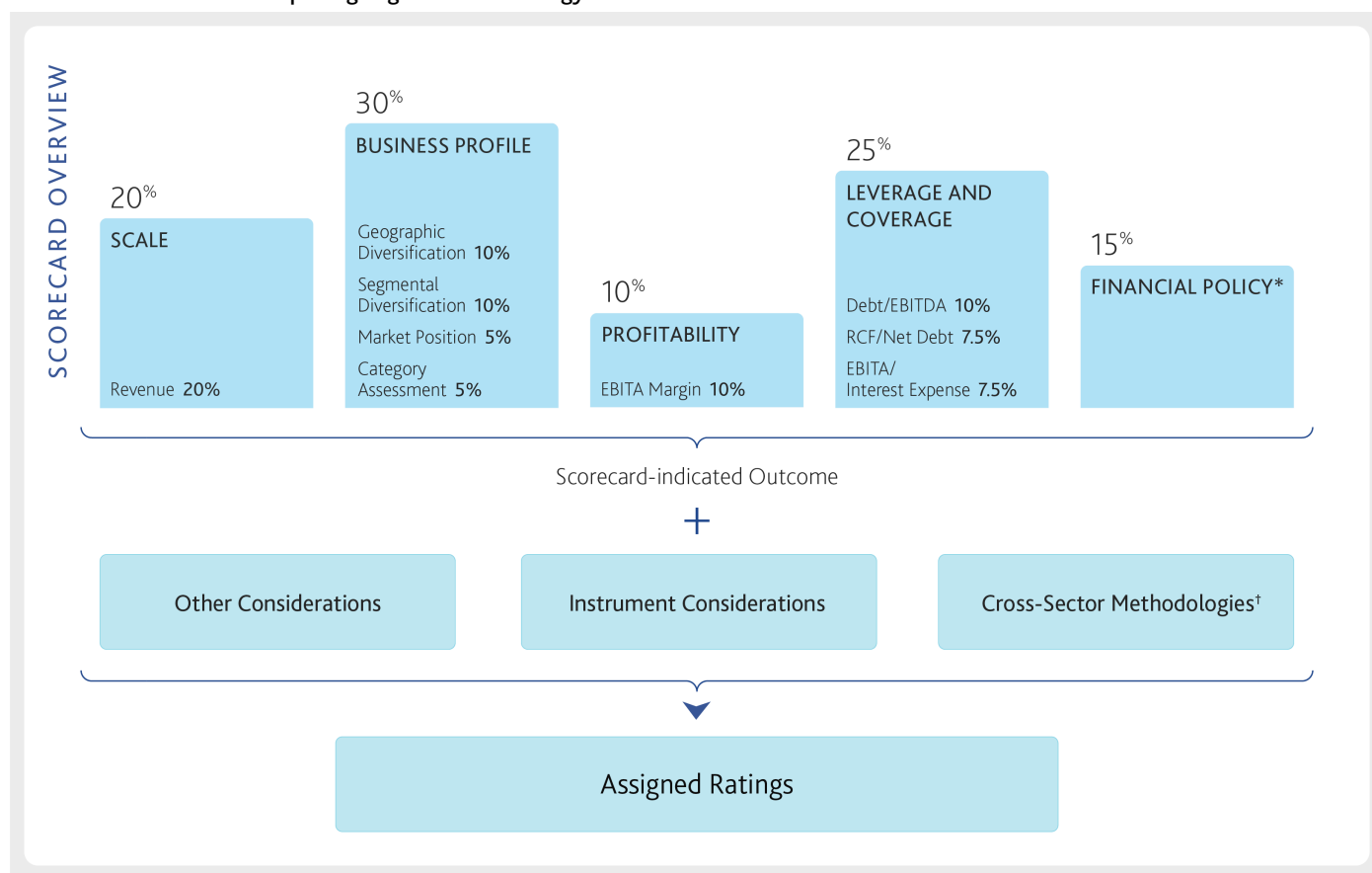
## Rating approach

In this rating methodology, we explain our general approach to assessing credit risk of issuers in the consumer packaged goods 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 consumer packaged goods companies, which includes the use of a scorecard.<sup>3</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 consumer packaged goods 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

## Consumer packaged goods 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

### Consumer packaged goods scorecard

SCALE (20%)		BUSINESS PROFILE (30%)			PROFITABILITY (10%)	LEVERAGE and COVERAGE (25%)			FINANCIAL POLICY (15%)	
Revenue (USD Billion) <sup>[1]</sup> (20%)	Geographic Diversification (10%)	Segmental Diversification (10%)	Market Position (5%)	Category Assessment (5%)	EBITA Margin <sup>[2]</sup> (10%)	Debt / EBITDA <sup>[3]</sup> (10%)	RCF / Net Debt <sup>[4]</sup> (7.5%)	EBITA / Interest Expense <sup>[5]</sup> (7.5%)	Financial Policy (15%)	
Aaa	≥ \$60	Fully diversified presence globally; any limited concentration in the largest markets reflects the global importance of those markets.	More than 8 relatively balanced market segments.	Clear global leader in multiple, broad categories.	Very strong innovation; very broad appeal; low degree of price elasticity; highly consistent demand; strong growth potential.	≥ 30%	≤ 0.75x	≥ 70%	≥ 20x	Expected to have extremely conservative financial policies (including risk and liquidity management); very stable metrics; essentially no event risk that would cause a rating transition; and public commitment to a very strong credit profile over the long term.
Aa	\$30 - \$60	Worldwide presence; well-diversified globally with no material concentration.	7 - 8 relatively balanced segments.	Clear global leader in at least one broad category.	Strong innovation; broad appeal; low degree of price elasticity; consistent demand; strong growth potential.	25% - 30%	0.75x - 1.5x	50% - 70%	12.5x - 20x	Expected to have very conservative financial policies (including risk and liquidity management); stable metrics; minimal event risk that would cause a rating transition; and public commitment to a strong credit profile over the long term.
A	\$10 - \$30	Worldwide presence; moderate degree of concentration in some regions.	5 - 6 relatively balanced segments.	Mostly No. 1 in broad categories in key markets.	Good innovation; broad appeal; low degree of price elasticity; consistent demand; solid growth potential.	20% - 25%	1.5x - 2.5x	35% - 50%	7.5x - 12.5x	Expected to have predictable financial policies (including risk and liquidity management) 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	\$4 - \$10	Worldwide presence, with increased degree of concentration in some regions.	4 relatively balanced segments.	Mostly No. 2 in broad categories in key markets.	Moderate innovation; broad appeal; moderate degree of price elasticity; consistent demand; moderate growth potential.	15% - 20%	2.5x - 3.5x	20% - 35%	5x - 7.5x	Expected to have financial policies (including risk and liquidity management) that balance the interests of creditors and shareholders; some risk that debt-funded acquisitions or shareholder distributions could lead to a weaker credit profile.
Ba	\$1.5 - \$4	Broad continental presence (Americas, Europe, Asia), with some presence in additional regions.	2 - 3 relatively balanced segments.	Top tier in broad categories or No. 1 in narrowly defined but large categories.	Scope for innovation; variable appeal; may be vulnerable to higher degree of price elasticity; potential for variable demand; limited growth potential.	12.5% - 15%	3.5x - 4.5x	15% - 20%	2.5x - 5x	Expected to have financial policies (including risk and liquidity management) that tend to favor shareholders over creditors; above-average financial risk resulting from shareholder distributions, acquisitions or other significant capital structure changes.

SCALE (20%)		BUSINESS PROFILE (30%)			PROFITABILITY (10%)	LEVERAGE and COVERAGE (25%)			FINANCIAL POLICY (15%)	
Revenue (USD Billion) <sup>[1]</sup> (20%)	Geographic Diversification (10%)	Segmental Diversification (10%)	Market Position (5%)	Category Assessment (5%)	EBITA Margin <sup>[2]</sup> (10%)	Debt / EBITDA <sup>[3]</sup> (10%)	RCF / Net Debt <sup>[4]</sup> (7.5%)	EBITA / Interest Expense <sup>[5]</sup> (7.5%)	Financial Policy (15%)	
B	\$0.5 - \$1.5	Broad continental presence (Americas, Europe, Asia), without significant presence in additional regions.	Multiple segments, but one segment accounts for over 60% of sales.	Second tier in broad categories or at least No. 2 in narrowly defined but large categories.	Limited innovation; narrow appeal; may be vulnerable to higher degree of price elasticity; potential for variable demand; low growth potential.	10% - 12.5%	4.5x - 6.5x	8% - 15%	1x - 2.5x	Expected to have financial policies (including risk and liquidity management) that favor shareholders over creditors; high financial risk resulting from shareholder distributions, acquisitions or other significant capital structure changes.
Caa	\$0.25 - \$0.5	Broad presence in a single major country or presence across a portion of a continent.	Multiple segments, but one segment accounts for over 90% of sales.	Weakly positioned in broad categories or second tier in narrowly defined categories.	Low innovation; narrow appeal; high degree of price elasticity; potentially negative growth prospects.	5% - 10%	6.5x - 10x	1% - 8%	0.5x - 1x	Expected to have financial policies (including risk and liquidity management) that create elevated risk of debt restructuring in varied economic environments.
Ca	< \$0.25	Regional presence within a country.	Single segment.	Weakly positioned in all categories or in a highly fragmented category.	Secular decline; highly cyclical or commodity-like; no pricing power.	< 5%	> 10x	< 1%	< 0.5x	Expected to have financial policies (including risk and liquidity management) that create elevated risk of debt restructuring even in healthy economic environments.

[1] For the linear scoring scale, the Aaa endpoint value is \$100 billion. A value of \$100 billion or better equates to a numeric score of 0.5. The Ca endpoint value is zero. A value of zero equates to a numeric score of 20.5.

[2] For the linear scoring scale, the Aaa endpoint value is 50%. A value of 50% or better equates to a numeric score of 0.5. The Ca endpoint value is zero. A value of 0% equates to a numeric score of 20.5.

[3] For the linear scoring scale, the Aaa endpoint value is 0x. A value of 0x or better equates to a numeric score of 0.5. The Ca endpoint value is 15x. A value of 15x or worse equates to a numeric score of 20.5, as does a negative Debt/EBITDA value.

[4] For the linear scoring scale, when net debt is positive, the Aaa end point value is 100%. A value of 100% or better equates to a numeric score of 0.5. The Ca endpoint value is 0%. A value of 0% or worse equates to a numeric score of 20.5. When net debt is negative and RCF is positive, the numeric score is 0.5. When net debt is negative and RCF is negative or zero, the numeric score is 20.5.

[5] For the linear scoring scale, the Aaa endpoint value is 40x. A value of 40x or better equates to a numeric score of 0.5. The Ca endpoint value is zero. A value of zero or worse equates to a numeric score of 20.5.

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. Large-scale companies generally have more flexibility to allocate capacity and absorb expenses under different demand and cost scenarios than small-scale companies. Larger companies are also typically in stronger positions to negotiate with distributors and retailers.

#### How we assess it for the scorecard

##### REVENUE:

Scale is measured (or estimated in the case of forward-looking expectations) using total reported revenue in billions of US dollars.

### Factor: Business Profile (30% weight)

#### Why it matters

The business profile of a consumer packaged goods company is important because it greatly influences its ability to generate sustainable earnings and operating cash flows. Core aspects of a consumer packaged goods company's business profile are its geographic and segmental diversification, its market position and its category and product portfolio.

Companies in the consumer packaged goods industry typically have experienced low revenue growth, and they rely on strong market positions and brand strength to increase profits through higher pricing, lower costs and favorable margins.

This factor comprises four qualitative sub-factors:

#### *Geographic Diversification*

A consumer packaged goods company's geographic diversification is important because it can mitigate adverse economic trends or changes in consumer habits that affect specific regions. Geographic diversification may also mitigate the adverse effects of changes in relationships with third-party customers (e.g., retailers), which are typically regional, as well as the impact of regional regulatory changes, product liability or safety issues.

#### *Segmental Diversification*

Segmental diversification is important because it allows a consumer packaged goods company to sell more products to a wider variety of customers and meet demand patterns that may vary over time. A consumer packaged goods company with a variety of products and brands is better positioned to manage product obsolescence, change in consumer habits and the weakening of an individual brand.

#### *Market Position*

Consumer packaged goods companies with strong market positions tend to be more profitable. Because of their larger scale, companies with better market positions typically gain bargaining power with suppliers and have greater ability to raise prices, including passing on higher input costs to customers. Profitability can vary from one market to another, but it tends to be higher over time in markets where a company has a leading market position.

#### *Category Assessment*

The sustained appeal of a consumer packaged goods company's product portfolio and its ability to generate awareness and demand for its brands are key to maintaining market position in the face of changing consumer behavior.

#### How we assess it for the scorecard

Scoring for this factor is based on four sub-factors: Geographic Diversification; Segmental Diversification; Market Position; and Category Assessment.

In assessing each sub-factor, we generally do not expect a given company's business profile to exactly match each of the attributes listed for a given scoring category. We typically assign each sub-factor score based on the alpha category for which the issuer has the greatest number of characteristics. However, there may be cases in which one characteristic is sufficiently important to a particular issuer's credit profile that it has a large influence on the sub-factor score.

#### **GEOGRAPHIC DIVERSIFICATION:**

Scoring for this sub-factor is primarily based on sales diversification globally or by continent, country or local region. Many consumer packaged goods companies have a global presence, but their sales may be focused on a particular country or region. Companies with operations that are diversified globally typically receive higher scores for this sub-factor than companies whose sales are largely concentrated in one continent or country. However, we may assign higher scores to companies that have modest concentration when that concentration is in markets that are among the largest globally. For example, a packaged goods company may be better positioned if its activities are more highly concentrated in the US than in other countries in North America or South America.

#### **SEGMENTAL DIVERSIFICATION:**

We assess segment diversification based on the number of market segments in which a consumer packaged goods company produces and sells products. We typically assign higher scores for this sub-factor to companies selling products in a higher number of distinct segments. We typically consider any group of products that generates around 10% of a company's revenue to be a distinct segment; one that generates less than 10% would not be considered in the segment count. We also consider whether a company's sales are relatively balanced between segments and the level of concentration within an individual segment. For example, if a company has products in several segments, but 60% of its sales are concentrated in one segment, the company typically is scored lower for this sub-factor than a company with products in the same number of segments but with a concentration of less than 60% in one segment. Typically, we consider each of the following to be a distinct market segment: biscuits, including cookies and crackers; cereals; culinary items, including cookware and kitchenware; confectionery, including candy, gum and mints; cosmetics; dairy products; dressings; fragrances; frozen food; frozen desserts; hair care; home care, including cleaning products; laundry; personal care products, such as dental care and shaving products; over-the-counter products, including vitamins and non-prescription medication; paper home products, including paper plates, toilet paper, paper towels and napkins; pet care; soup; skin care; and tobacco products.

#### **MARKET POSITION:**

Scoring for this sub-factor is primarily based on an assessment of a consumer packaged goods company's market position in its various product categories. We consider a company's market position and the number of categories in which it has a strong market position, as well as the breadth of the categories in which it has a competitive position. For example, a company that is a global leader in a broad category is likely to score higher for this sub-factor than a company that is the global leader in a more narrow category. We also typically consider whether demand for the company's products are in the top tier (typically the top three in terms of sales) or second tier (typically between the top four and seven in terms of sales) within a region.

In assessing the strength of a consumer packaged goods company's brand, we typically consider customer awareness of the brand in the regions where it is primarily sold. We may review third-party data on brand awareness and market share. We also typically consider the price point of a company's products relative to comparable products. A brand whose products are consistently less expensive than comparable products generally reflects a more commoditized brand with less customer loyalty than one that is sold at a premium to other products. We typically consider the number of categories associated with the brand and the strength of the brand across those categories. We may also assess revenue trends by brand when data is available. We also typically consider whether a company can sustain or build its market position over time.

#### **CATEGORY ASSESSMENT:**

In scoring this sub-factor, we consider several characteristics that contribute to the quality of a consumer packaged goods company's brand and product portfolio. These include the company's capacity to innovate; the appeal of its products; price inelasticity, which allows a company to raise prices without a commensurate decrease in volumes sold; the stability and predictability of demand for its products and the growth potential of its products. In our assessment, we typically consider the performance of the product category as well as performance of the brand. For example, our assessment of a company's fragrance line would include an evaluation

of performance of the fragrance category (e.g., its potential relative to other packaged goods) as well as how the particular brand performs relative to other companies' fragrance lines.

In assessing this sub-factor, we consider the range and quality of products the company has introduced recently (typically in the past five years), advertising spending relative to sales, the volatility of sales and earnings, absolute sales growth and growth relative to peers in the same segments.

### Factor: Profitability (10% weight)

#### Why it matters

Profits matter because they are needed to generate sustainable cash flow and maintain a competitive position. Profit margins are an important indicator of a consumer packaged goods company's overall brand strength, its efficiency in marketing products through distribution channels, and in particular its ability to control costs.

A consumer packaged goods company with a strong competitive position and high relevance to consumers, based on its brands or the types of products it sells, often has high consumer loyalty, generally leading to more recurring sales and stronger profit margins than a company with a weaker competitive position and less relevance to consumers.

#### How we assess it for the scorecard

##### EBITA MARGIN:

We use the ratio of earnings before interest, taxes and amortization to revenue (EBITA Margin).

### Factor: Leverage and Coverage (25% weight)

#### Why it matters

Leverage and cash flow coverage measures provide important indications of a consumer packaged goods company's financial flexibility and long-term viability.

This factor comprises three quantitative sub-factors:

##### *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.

##### *RCF / Net Debt*

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

##### *EBITA / Interest Expense*

The ratio of earnings before interest, taxes and amortization to interest expense (EBITA/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: Debt/EBITDA; RCF/Net Debt; and EBITA/Interest Expense.

##### DEBT/ EBITDA:

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

##### RCF / NET DEBT:

The numerator is retained cash flow, and the denominator is net debt (total debt minus cash and cash equivalents).

**EBITA / INTEREST EXPENSE:**

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

**Factor: Financial Policy (15% weight)****Why it matters**

Financial policy encompasses management and board tolerance for financial risk and commitment to a strong credit profile. It is an important rating determinant, because it directly affects debt levels, credit quality, the future direction for the company and the risk of adverse changes in financing and capital structure.

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 the ratings of 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. Liquidity management<sup>4</sup> is an important aspect of overall risk management and can provide insight into risk tolerance.

Many consumer packaged goods companies have historically used acquisitions to spur revenue growth, expand business lines, consolidate market positions, advance cost synergies or seek access to new technology.

**How we assess it for the scorecard**

We assess the issuer's desired capital structure or targeted credit profile, its history of prior actions, including its track record of risk and liquidity management, and its adherence to its commitments. Attention is paid to management's operating performance and use of cash flow through different phases of economic and industry 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 or regulatory pressures. 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.

When considering event risks in the context of scoring financial policy, we assess the likelihood and potential negative impact of M&A or other types of balance-sheet-transforming events. 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 generally result in a lower score for this factor. We may also consider negative repercussions caused by shareholders' willingness to sell the company.

We also consider a company's 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.

**Regulatory Considerations**

Companies in the packaged goods sector are subject to varying degrees of regulatory oversight. Effects of these regulations may entail limitations on operations, higher costs, and higher potential for technology disruptions and demand substitution. Regional differences in regulation, implementation or enforcement may advantage or disadvantage particular issuers.



Our view of future regulations plays an important role in our expectations of future financial metrics as well as our confidence level in the ability of an issuer to generate sufficient cash flows relative to its debt burden over the medium and longer term. In some circumstances, regulatory considerations may also be a rating factor outside the scorecard, for instance when regulatory change is swift.

#### **Environmental, Social and Governance Considerations**

Environmental, social and governance (ESG) considerations may affect the ratings of issuers in the packaged goods sector. For information about our approach to assessing ESG issues, please see our methodology that describes our general principles for assessing these risks.<sup>5</sup>

In the packaged goods sector, carbon taxes could increase transportation costs. Also, water shortages may lead to higher costs for water-sensitive food products. Over time, a company's ability to adapt by passing along higher costs to consumers or developing innovative production methods may affect its Category Assessment sub-factor score.

Social considerations may also affect a packaged goods company's Category Assessment score. Brand perceptions and customers' purchase decisions may be affected by headline risks from a packaged goods company's supply-chain practices, such as human rights controversies and violations, environmental impact or political activism. Items such as tobacco and tobacco-like products could be impacted by safety concerns, public perception and buying habits. Also, changing demographics, such as aging populations and generational shifts in values or views on nutrition, and concerns over fair pricing and access to essential goods and services may affect customers' buying patterns.

#### **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.

#### **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.

#### **Excess Cash Balances**

Some companies in this sector may maintain cash balances (meaning liquid short-term investments as well as cash) that are far in excess of their operating needs. This excess cash can be an important credit consideration; however, the underlying policy and motivations of the issuer in holding high cash balances are often as or more important in our analysis than the level of cash held. We have observed significant variation in company behavior based on differences in financial philosophy, investment opportunities, availability of committed revolving credit facilities and shareholder pressures.

Most issuers need to retain some level of cash in their business for operational purposes. The level of cash required to run a business can vary based on the region(s) of operation and the specific sub-sectors in which the issuer operates. Some issuers have very predictable cash needs and others have much broader intra-period swings, for instance related to mark-to-market collateral requirements under hedging instruments. Some companies may hold large levels of cash at times because they operate without committed, long-term bank borrowing facilities. Some companies may hold cash on the balance sheet to meet long-term contractual liabilities, whereas other companies with the same types of liabilities have deposited cash into trust accounts that are off balance sheet. The level of cash that issuers are willing to hold can also vary over time based on the cost of borrowing and macroeconomic conditions. The same issuer may place a high value on cash holdings in a major recession or financial crisis but seek to pare cash when inflation is high. As a result, cash on the balance sheet is most often considered qualitatively, by assessing the issuer's track record and financial and liquidity policies rather than by measuring how a point-in-time cash balance would affect a specific metric.

Across all corporate sectors, an important shareholder-focused motivation for cash holdings, sometimes over very long periods, is cash for acquisitions. In these cases, we do not typically consider that netting cash against the issuer's current level of debt is analytically

meaningful; however, the cash may be a material mitigant in our scenario analyses of potential acquisitions, share buybacks or special dividends. Tax minimization strategies have at times been another primary motivation for holding large cash balances. Given shareholder pressures to return excess cash holdings, when these motivations for holding excess cash are eliminated, we generally expect that a large portion of excess cash will be used for dividends and share repurchases.

By contrast, some companies maintain large cash holdings for long periods of time in excess of their operating and liquidity needs solely due to conservative financial policies, which provides a stronger indication of an enduring approach that will benefit creditors. For instance, some companies have a policy to routinely pre-fund upcoming required debt payments well in advance of the stated maturity. Such companies may also have clearly stated financial targets based on net debt metrics and a track record of maintaining their financial profile within those targets.

While the scorecard in this methodology uses certain leverage and coverage ratios with total (or gross) debt, we do consider excess cash holdings in our rating analysis, including in our assessment of the financial and liquidity policy. For issuers where we have clarity into the extent to which cash will remain on the balance sheet and/or be used for creditor-friendly purposes, excess cash may be considered in a more quantitative manner. While we consider excess cash in our credit assessment for ratings, we do not typically adjust the balance sheet debt for any specific amount because this implies greater precision than we think is appropriate for the uncertain future uses of cash. However, when cash holdings are unusually large relative to debt, we may refer to debt net of cash, or net of a portion of cash, in our credit analysis and press releases in order to provide additional insight into our qualitative assessment of the credit benefit. Alternatively, creditor-friendly use of cash may be factored into our forward view of metrics, for instance when the cash is expected to be used for debt-repayment. We may also cite rating threshold levels for certain issuers based on net debt ratios, particularly when these issuers have publicly stated financial targets based on net debt metrics. In cases where we believe that cash on the balance sheet does not confer meaningful credit support, we are more likely to cite gross debt ratios in our credit analysis, press releases and rating threshold levels.

Even when the eventual use for excess cash is likely to be for purposes that do not benefit debtholders, large holdings provide some beneficial cushion against credit deterioration, and cash balances are often considered in our analysis of near-term liquidity sources and uses. Such downside protection is usually more important for low rated companies than for highly rated companies due to differences in credit stability and the typically shorter distance from potential default for issuers at the lower end of the ratings spectrum.

### **Liquidity**

Liquidity is an important rating consideration for all packaged goods 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 companies in highly seasonal operating environments where working capital needs must be considered, 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.<sup>6</sup>

### **Additional Metrics**

The metrics included in the scorecard are those that are generally most important in assigning ratings to companies in this industry; however, we may use additional metrics to inform our analysis of specific companies. These additional metrics may be important to our forward view of metrics that are in the scorecard or other rating factors.

For example, free cash flow is not always an important differentiator of credit profiles. Strong companies with excellent investment opportunities may demonstrate multiyear periods of negative free cash flow while retaining solid access to capital and credit, because these investments will yield stable cash flows in future years. Weaker companies with limited access to credit may have positive free cash flow for a period of time because they have curtailed the investments necessary to maintain their assets and future cash-generating prospects. However, in some cases, free cash flow can be an important driver of the future liquidity profile of an issuer, which, as noted above, can have a meaningful impact on ratings.

### **Non-wholly Owned Subsidiaries**

Some companies in the packaged goods sector choose to dilute their equity stake in certain material subsidiaries, for example through an initial public offering, which may in some cases negatively impact future financial flexibility. While improving cash holdings on a one-off basis, selling minority interests in subsidiaries may have a negative impact on cash flows available to the parent company

that may not be fully reflected in consolidated financial statements.<sup>7</sup> The parent's share of dividend flows from a non-wholly owned subsidiary is reduced, and minority stakes can increase structural subordination, since dividend flows to minority interest holders are made before the cash flows are available to service debt at the parent company. While less frequent, sale of a minority stake may be accompanied by policies protective of the subsidiary that further limit the parent's financial flexibility, for instance restrictions on cash pooling with other members of the corporate family, limitations on dividends and distributions, or arms-length business requirements. Minority stakeholders may have seats on the board of the subsidiary. In many cases, we consider the impact of non-wholly owned subsidiaries qualitatively. However, in some cases we may find that an additional view of financial results, such as analyzing cash flows on a proportional consolidation basis, may be very useful to augment our analysis based on consolidated financial statements. When equity dilution or structural subordination arising from non-wholly owned subsidiaries is material and negative, the credit impact is captured in ratings but may not be fully reflected in scorecard-indicated outcomes.

For companies that hold material minority interest stakes, consolidated funds from operations typically includes the dividends received from the minority subsidiary, while none of its debt is consolidated. When such dividends are material to the company's cash flows, these cash flows may be subject to interruption if they are required for the minority subsidiary's debt service, capital expenditures or other cash needs. When minority interest dividends are material, we may also find that proportional consolidation or another additional view of financial results is useful to augment our analysis of consolidated financials. We would generally also consider structural subordination in these cases.<sup>8</sup> When these credit considerations are material, their impact is captured in ratings but may not be fully reflected in scorecard-indicated outcomes.

#### **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 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, litigation, pandemics, significant cyber-crime events and shareholder distributions.

#### **Parental Support**

Ownership can provide ratings lift for a particular company in the packaged goods 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>9</sup> For example, price controls, onerous taxation and high distributions can have a negative effect on an issuer's underlying credit profile.

#### **Other Institutional Support**

In some countries, large corporate issuers have received government or banking support in the event of financial difficulties because of their overall importance to the functioning of the economy. In Japan, our corporate ratings consider the support that has operated there for large and systemically important organizations. Over the years, this has resulted in lower levels of default than might otherwise have occurred. Our approach considers whether the presence of group and banking relationships may provide support when systemically important companies encounter significant financial stress.

#### **Seasonality**

Seasonality is an important driver of customer demand and can cause swings in cash balances and working capital positions for issuers. Higher volatility creates less room for errors in meeting customer demand or operational execution.

## **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>10</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>11</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>12</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

Quantitative factors are scored on a linear continuum. For each metric, the scorecard shows the range by alpha category. We use the scale below and linear interpolation to convert the metric, based on its placement within the scorecard range, to a numeric score, which may be a fraction. As a purely theoretical example, if there were a ratio of revenue to interest for which the Baa range was 50x to 100x, then the numeric score for an issuer with revenue/interest of 99x, relatively strong within this range, would score closer to 7.5, and an issuer with revenue/interest of 51x, relatively weak within this range, would score closer to 10.5. In the text or table footnotes, we define the endpoints of the line (i.e., the value of the metric that constitutes the lowest possible numeric score, and the value that constitutes the highest possible numeric score).

Exhibit 4

Aaa	Aa	A	Baa	Ba	B	Caa	Ca
0.5-1.5	1.5-4.5	4.5-7.5	7.5-10.5	10.5-13.5	13.5-16.5	16.5-19.5	19.5-20.5

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 5

**Scorecard-indicated outcome**

Scorecard-indicated outcome	Aggregate numeric score
Aaa	$x \leq 1.5$
Aa1	$1.5 < x \leq 2.5$
Aa2	$2.5 < x \leq 3.5$
Aa3	$3.5 < x \leq 4.5$
A1	$4.5 < x \leq 5.5$
A2	$5.5 < x \leq 6.5$
A3	$6.5 < x \leq 7.5$
Baa1	$7.5 < x \leq 8.5$
Baa2	$8.5 < x \leq 9.5$
Baa3	$9.5 < x \leq 10.5$
Ba1	$10.5 < x \leq 11.5$
Ba2	$11.5 < x \leq 12.5$
Ba3	$12.5 < x \leq 13.5$
B1	$13.5 < x \leq 14.5$
B2	$14.5 < x \leq 15.5$
B3	$15.5 < x \leq 16.5$
Caa1	$16.5 < x \leq 17.5$
Caa2	$17.5 < x \leq 18.5$
Caa3	$18.5 < x \leq 19.5$
Ca	$19.5 < x \leq 20.5$
C	$x > 20.5$

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 to 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>13</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>14</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>15</sup>

## Key rating assumptions

For information about key rating assumptions that apply to methodologies generally, please see *Rating Symbols and Definitions*.<sup>16</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 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>17</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 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](#).

**Author:**

Geordie Thompson



## Endnotes

- [1](#) A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.
- [2](#) A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.
- [3](#) In our methodologies and research, the terms "scorecard" and "grid" are used interchangeably.
- [4](#) Liquidity management is distinct from the level of liquidity, which is discussed in the "Other considerations" section.
- [5](#) A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.
- [6](#) A link to a list of our cross-sector methodologies can be found in the "Moody's related publications" section.
- [7](#) For example, in the case of an equity stake reduction in a subsidiary down to 75%, in the parent's financial statements, all revenue and EBITDA of the subsidiary would typically still be consolidated at the group level.
- [8](#) Proportional consolidation brings a portion of the minority subsidiary's debt onto the balance sheet, but this debt is structurally senior to debt at the parent company, because it is closer to the assets and cash flows of the minority subsidiary.
- [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.
- [10](#) 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.
- [11](#) 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.
- [12](#) 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.
- [13](#) 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.
- [14](#) 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.
- [15](#) A link to a list of our sector and cross-sector rating methodologies can be found in the "Moody's related publications" section.
- [16](#) A link to *Rating Symbols and Definitions* can be found in the "Moody's related publications" section.
- [17](#) A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

© 2022 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S CREDIT RATINGS AFFILIATES ARE THEIR CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MATERIALS, PRODUCTS, SERVICES AND INFORMATION PUBLISHED BY MOODY'S (COLLECTIVELY, "PUBLICATIONS") MAY INCLUDE SUCH CURRENT OPINIONS. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE APPLICABLE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S CREDIT RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS, NON-CREDIT ASSESSMENTS ("ASSESSMENTS"), AND OTHER OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. AND/OR ITS AFFILIATES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS, ASSESSMENTS AND OTHER OPINIONS AND PUBLISHES ITS PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS, AND PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS OR PUBLICATIONS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER.

ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the rating process or in preparing its Publications.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY CREDIT RATING, ASSESSMENT, OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any credit rating, agreed to pay to Moody's Investors Service, Inc. for credit ratings opinions and services rendered by it fees ranging from \$1,000 to approximately \$5,000,000. MCO and Moody's Investors Service also maintain policies and procedures to address the independence of Moody's Investors Service credit ratings and credit rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold credit ratings from Moody's Investors Service and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at [www.moody.com](http://www.moody.com) under the heading "Investor Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657 AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any credit rating, agreed to pay to MJKK or MSFJ (as applicable) for credit ratings opinions and services rendered by it fees ranging from JPY100,000 to approximately JPY550,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the issuer/deal page on <https://ratings.moody.com> for the most updated credit rating action information and rating history.

REPORT NUMBER

1287895