

## RATING METHODOLOGY

# Nonprofit Organizations (Other Than Healthcare and Higher Education)

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This rating methodology, which applies globally, replaces *Not-for-Profit Organizations (other than Healthcare and Education)* dated June 29, 2017. The methodology titled "US Independent Schools," which was consolidated into this methodology, has been withdrawn. While reflecting the same core principles as the prior methodologies, this updated document incorporates refinements to the scorecard, including some changes in weights and thresholds, and expands the scoring scale to the C category. This update also provides more details about the rating considerations that are usually most important for issuers in this sector.

### Introduction

In this rating methodology, we explain our general approach to assessing credit risk for nonprofit organizations globally, excluding the healthcare and higher education sectors. We discuss the qualitative and quantitative factors that are likely to affect rating outcomes in this sector.

We discuss the scorecard used for this sector. The scorecard<sup>1</sup> is a relatively simple reference tool that can be used in most cases to approximate credit profiles in this sector and to explain, in summary form, many of the factors that are generally most important in assigning ratings to issuers in this sector. The scorecard factors may be evaluated using historical or forward-looking data or both.

We also discuss other rating considerations, which are factors that are assessed outside the scorecard, usually because the factors' 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. In addition, some of the methodological considerations described in one or more cross-sector rating methodologies may be relevant to ratings in this sector.<sup>2</sup> Furthermore, since ratings are forward-looking, we often incorporate directional views of risks and mitigants in a qualitative way.

As a result, the scorecard-indicated outcome is not expected to match the actual rating for each issuer.

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

<sup>2</sup> A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

Our presentation of this rating methodology proceeds with (i) the scope of this methodology; (ii) the scorecard framework; (iii) a discussion of the scorecard factors; (iv) other rating considerations not reflected in the scorecard; (v) the assignment of instrument-level ratings; (vi) methodology assumptions; and (vii) limitations. In Appendix A, we describe how we use the scorecard to arrive at a scorecard-indicated outcome. Appendix B shows the full view of the scorecard factors, sub-factors, weights and thresholds.

## Scope of This Methodology

This methodology applies globally to nonprofit organizations that are not covered by other, more specific methodologies. Nonprofits are typically non-governmental organizations that perform a service that is usually recognized by the government in their country of domicile as being in the public good (e.g. a charity) or as a membership organization. This recognition may include a special tax-exempt status that helps the organization solicit philanthropic gifts (a key characteristic of US charitable nonprofits). Nonprofits may receive public funding, but their staffing, management and decision-making are largely independent of the government.

The global rated universe covers a wide range of sub-sectors and business models. Nonprofit organizations covered under this methodology include cultural institutions, philanthropic organizations, research organizations, and service and advocacy organizations.

This methodology also applies to independent schools. Nonprofit independent schools covered under this methodology typically charge tuition fees but also depend on charitable giving and endowments to support their operations. While some nonprofit independent schools receive public funding, their principal funding sources are typically private or charitable.

This methodology also applies to a select group of US governmental enterprises, such as special districts or commissions that provide busing, special education, or administrative or other support services on an enterprise basis to other governmental entities such as public school districts.

The universe of nonprofit organizations rated under this methodology excludes issuers in the following sectors, which are rated under separate methodologies:<sup>3</sup>

- » Not-for-Profit Healthcare
- » Higher Education
- » Charter Schools
- » Multilateral Development Banks and Other Supranational Entities
- » European Social Housing

Some nonprofit organizations may be classified as government-related issuers (GRIs), in which case this methodology may be used to assign a Baseline Credit Assessment.<sup>4</sup>

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on [www.moodys.com](http://www.moodys.com) for the most updated credit rating action information and rating history.

<sup>3</sup> A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

<sup>4</sup> Please refer to our cross-sector methodology that discusses our approach for rating government-related issuers. For an explanation of Baseline Credit Assessment, please refer to *Rating Symbols and Definitions*.

## EXHIBIT 1

## Overview of the Major Nonprofit Organization Sub-sectors

| Cultural   | Philanthropic  | Research   | Service/Advocacy   | Independent Schools   |
|--|--|--|--|---|
| Organizations committed to cultural enrichment, including museums, aquariums, zoos, performing arts, and public radio. | Organizations with a charitable mission whose primary purpose is to distribute funds to other entities for various uses. | Non-degree granting organizations whose primary purpose is research. | Diverse group of issue-oriented organizations, often with a mission to provide services to a body of constituents, including membership organizations, religious organizations, social service agencies and professional associations. | Private K-12 schools that are independently managed and financed, accredited by the state and funded through tuition and charitable donations; includes day schools, boarding schools and schools that serve boarding and day students. |

## Scorecard Framework

The scorecard in this rating methodology is composed of four factors. Each of the four factors comprises sub-factors.

The scorecard has somewhat different weights and thresholds for standard nonprofits and balance-sheet-heavy nonprofits. Where the total cash and investments of the nonprofit exceeds five times annual operating expenses, we typically use the balance-sheet-heavy weighting, because these nonprofits typically face less market and operational risk and depend more on their financial resources.

For other nonprofits we typically use the standard weighting.

## EXHIBIT 2

## Nonprofit Organizations Sector Scorecard Overview

| Rating Factor                     | Standard / Balance-Sheet-Heavy Factor Weighting | Sub-factor  | Standard Sub-Factor Weighting | Balance-Sheet-Heavy Sub-Factor Weighting |
|-----------------------------------|---|---|-------------------------------|--|
| Market Profile                    | 25% / 15%                                       | Adjusted Operating Revenue                            | 10%                           | 5%                                       |
|                                   |   | Brand and Strategic Positioning                       | 15%                           | 10%                                      |
| Operating Performance             | 25% / 20%                                       | EBIDA Margin  | 10%                           | 5%                                       |
|                                   |   | Financial Strategy                                    | 15%                           | 15%                                      |
| Financial Resources and Liquidity | 30% / 40%                                       | Total Cash and Investments                            | 10%                           | 10%                                      |
|                                   |   | Spendable Cash and Investments to Operating Expenses  | 10%                           | 20%                                      |
|                                   |   | Monthly Days Cash on Hand                             | 10%                           | 10%                                      |
| Leverage                          | 20% / 25%                                       | Spendable Cash and Investments to Total Adjusted Debt | 10%                           | 25%                                      |
|                                   |   | Total Adjusted Debt to Operating Revenue              | 10%                           | 0%                                       |
| <b>Total</b>                      | <b>100%</b>                                     | <b>Total</b>  | <b>100%</b>                   | <b>100%</b>                              |

## Discussion of the Scorecard Factors

### Factor 1: Market Profile (Standard Weight: 25%) (Balance-Sheet-Heavy Weight: 15%)

#### Why It Matters

This factor provides important indications of the scale and durability of nonprofit organizations. For most nonprofits, market profile is a key driver of long-term financial stability because it enables organizations to generate revenue, either earned or donated, in support of their missions.

The factor comprises two sub-factors:

#### *Adjusted Operating Revenue*

Operating revenue is an indicator of the scale of a nonprofit's operations and the size of the earned revenue and incoming gifts that, in combination with adjusted investment income, support its mission and operations.

#### *Brand and Strategic Positioning*

A strong brand level is important because it supports a strong market position as well as consistent and sustainable operating revenue to cover expenses, including debt service, over the long term. A nonprofit's strategic positioning and ability to shape, protect and enhance how others perceive the value of its mission, programs and services provides the foundation for its credit profile. For a stable or growing organization, having a strong brand and leading market position are important credit strengths, because they greatly influence the ability to grow, attract board members, garner donor support and generate earned revenue.

#### How We Assess It for the Scorecard

##### **ADJUSTED OPERATING REVENUE:**

Operating revenue is measured or estimated in millions of US dollars, and we make certain adjustments. Rather than including actual drawdowns from the endowment or annual investment activity, which can vary among organizations, we use a normalized percentage of total cash and investments.

For this sub-factor, adjusted operating revenue is equal to unrestricted operating revenue excluding net assets released from restrictions except for current use gifts and also adjusted to normalize endowment spending to 5% of the average level of cash and investments for the prior three fiscal years.

##### **BRAND AND STRATEGIC POSITIONING:**

We assess strategic positioning primarily based on the attributes of a nonprofit's brand. We also assess the relative durability of its competitive advantages, the impact of the regulatory, policy and legal framework, including the impact on operations and fundraising, the breadth and diversity of its revenue sources, and the expected volatility of its operating results. Nonprofits that are able to identify and assess potential risks as well as minimize the likelihood or impact of those risks typically have higher scores for this sub-factor.

Because of the diversity of the nonprofit sector, common measures of brand strength to provide quantitative insight across these various types of nonprofits are limited. Within nonprofit sub-sectors, however, quantitative measures that may inform our assessment of strategic positioning include the number of paid visitors for museums; total enrollment, selectivity, yield and net tuition per student for

independent schools; average ticket price or subscription renewal rates for performing arts organizations; membership revenue for service/advocacy groups; or sponsored research awards for research institutes.

In assessing strategic positioning, we consider the organization's position in its competitive landscape and how it might evolve over time. Nonprofits facing strong or increasing competition that reduces key revenue streams typically have lower scores for this sub-factor.

We also assess revenue diversity, which can take many forms across the various sub-sectors, including by business lines, geographies, customer demographics and the degree of sensitivity to economic conditions. We typically consider the underlying strength and cyclical nature of each key revenue stream. Concentration in one or only a few revenue sources may increase credit risk, especially if the concentration is in a riskier or more volatile business.

In addition, we consider the likely volatility of financial results of a nonprofit organization. Nonprofits vary in their expense flexibility and in the degree to which expense reductions affect future revenue streams. A performing arts organization, for example, may have a limited ability to generate incremental earned revenue through ticket sales while facing increased labor costs, leading to likely compression of operating results. In contrast, some grant-making philanthropic organizations are able to quickly reduce expenditures when sources of funding including investment income decline, leading to a lower likelihood of volatility in operating results. Organizations with the ability to achieve sustainable revenue growth typically have higher scores for this sub-factor.

We consider the effects that the regulatory and legal environment has on a nonprofit. Tax codes can encourage or discourage contributions to nonprofit organizations, and regulations may affect a nonprofit's operating scope or its ability to retain sufficient financial reserves to foster a stable credit profile over the long term. At a very basic level, the legal framework can affect the ability to establish a nonprofit, and governments can encourage, tolerate, discourage or prohibit the activities of non-governmental organizations.

## FACTOR 1

**Market Profile (25% / 15%)**

| Sub-factor                                  | Sub-factor Weight | Aaa   | Aa   | A   | Baa   | Ba   | B   | Caa   | Ca   | C  |
|---|-------------------|---|--|---|---|--|---|---|--|--|
| Operating Revenue in Millions <sup>*1</sup> | 10% / 5%          | ≥ \$600   | \$250 - \$600  | \$50 - \$250  | \$20 - \$50   | \$15 - \$20  | \$10 - \$15   | \$5 - \$10  | \$2.5 - \$5  | < \$2.5  |
| Brand and Strategic Positioning             | 15% / 10%         | Exceptional brand strength or deeply entrenched benefits through legal and regulatory framework; and exceptional breadth within revenues, programs and geographies; and expected volatility in results is extremely low to non-existent, supported by market strength and cost-effectiveness. | Excellent brand strength or well-entrenched benefits through legal and regulatory framework; and excellent breadth within revenues, programs and geographies; and expected volatility in results is very low, supported by market strength and cost-effectiveness. | Very good brand strength with long-lasting competitive advantages; and very good breadth within revenues, programs and geographies; and expected volatility in results is low, supported by market strength and cost-effectiveness. | Good brand strength with sustainable competitive advantages; or good breadth within revenues, programs and geographies; or expected volatility in results is moderately low, supported by market strength and cost-effectiveness. | Fairly good brand strength and competitive advantages; or moderate breadth within revenues, programs and geographies; or competitive profile or cost structure increases the likelihood of volatile results. | Poor brand strength with few competitive advantages; or poor breadth within revenues, programs and geographies; or competitive profile or cost structure increases the likelihood of highly volatile results. | Very poor brand strength and no material competitive advantages; or high concentration within revenues, programs and geographies; or modest market presence or cost structure increases the likelihood of extremely volatile results. | Extremely poor brand and competitive prospects; or very high concentration within revenues, programs and geographies; or weak market presence or cost structure increases the likelihood of extremely volatile results in the near term. | Extremely poor brand and competitive prospects, with little chance of improvement; or extremely high concentration within revenues, programs and geographies; or very weak market presence or cost structure increases the likelihood of extremely volatile results in the very near term. |

<sup>\*1</sup> For the linear scoring scale, the Aaa endpoint value is \$1.3 billion. A value of \$1.3 billion or better equates to a numeric score of 0.5. The C endpoint value is \$1 million. A value of \$1 million or worse equates to a numeric score of 21.5.

## Factor 2: Operating Performance (Standard Weight: 25%) (Balance-Sheet-Heavy Weight: 20%)

### Why It Matters

Strong operating performance is critical because it enables a nonprofit to repay debt from regular operating revenue while providing funds for strategic investment in programs and facilities. Nonprofit organizations often face the challenge of balancing spending to support mission objectives with sustaining long-term economic viability. The ability to achieve strong operating results is important for the long-run financial health of nonprofits, and typically proves especially critical for those that do not have significant financial reserves.

This factor comprises two sub-factors:

#### *EBIDA Margin<sup>5</sup>*

Earnings before interest, depreciation and amortization (EBIDA) margin is a strong indicator of a nonprofit's ability to support its operations while generating funds for debt service.

#### *Financial Strategy*

A nonprofit's financial strategy and the quality of information available to management and stakeholders provide indications of its risk appetite, risk management capabilities and ability to execute strategic plans that will foster long-term viability.

### How We Assess It for the Scorecard

#### **EBIDA MARGIN:**

The numerator is net income before interest, depreciation and other large non-cash expenses, and the denominator is adjusted operating revenue.

#### **FINANCIAL STRATEGY:**

Scoring for this sub-factor is based on a qualitative assessment of the quality of the issuer's financial reporting, its enterprise risk management as well as its ability to articulate and execute on strategic plans. We typically assess an organization's prior actions, its approach to identifying and managing risk, and its ability to adopt and manage within internal policies. A management team's prior responses to key events, including competitive challenges, economic cycles, changes in investment or debt markets, and regulatory challenges, help inform our forward-looking assessment of how an organization's financial strategy will impact its relative credit strength.

Organizations with high-quality internal and external financial reporting, thoughtfully developed policies, and demonstrated commitment to manage within and occasionally update their policies and controls typically have higher scores for this sub-factor. A clear commitment to external reporting and transparency also tends to be a credit strength. Such reporting includes not only mandatory financial disclosures but often also incorporates other information on the fundamental drivers of an organization's resources, inputs and outcomes.

We also consider an organization's appetite for risk and its broader approach to enterprise risk management. Nonprofit organizations exhibit wide differences in their approach to managing risks. The key areas of credit risk typically include an organization's reputation, revenue streams, workforce, investment management, debt and other liabilities. Nonprofits that have a demonstrated history of

<sup>5</sup> We may also refer to EBIDA margin as the operating cash flow margin.

analyzing their risk exposures, developing mitigation strategies, and conducting regular updates and reviews typically have higher scores for this sub-factor. Proactive planning that considers a range of potential outcomes and responses is usually credit positive.

In addition, we assess an organization's ability to develop and execute strategic plans. Issuers with a superior ability to develop and execute clear strategic plans-with measurable goals and defined institutional priorities typically score higher for this sub-factor. Strategic plans may vary in terms of inherent risk, with plans calling for material expansion sometimes introducing additional risks. Organizations with strong planning discipline typically have clear strategies for dealing with a range of events, including adverse events that may impact the ability to execute on a strategic plan.



## FACTOR 2

## Operating Performance (25% / 20%)

| Sub-factor                 | Sub-factor Weight | Aaa   | Aa   | A  | Baa   | Ba  | B  | Caa  | Ca  | C  |
|----------------------------|-------------------|---|--|--|---|---|--|--|---|--|
| EBIDA Margin <sup>*2</sup> | (10% / 5%)        | ≥ 20%   | 15% - 20%  | 10% - 15%  | 5% - 10%  | 3% - 5%   | 0%-3%  | -4% - 0%   | -5% - -4%   | < -5%  |
| Financial Strategy         | (15% / 15%)       | Exceptionally high quality of internal and external financial reporting and alignment of policies, procedures and practices; <i>and</i> risk appetite is minimal or risk or risks are extremely well-managed (with regard to operating assumptions, asset management and broader enterprise); <i>and</i> exceptional ability to execute strategic plan that incorporates a broad range of potential responses to adversity. | Excellent quality of internal and external financial reporting and alignment of policies, procedures and practices; <i>and</i> risk appetite is limited with excellent risk management discipline (with regard to operating assumptions, asset management and broader enterprise); <i>and</i> excellent ability to execute strategic plan that incorporates a broad range of potential responses to adversity. | Very good quality of internal and external financial reporting and alignment of policies, procedures and practices; <i>and</i> risk appetite is modest with strong risk management discipline (with regard to operating assumptions, asset management and broader enterprise); <i>and</i> very good ability to execute strategic plan that incorporates a range of potential responses to adversity. | Good quality of internal and external financial reporting and alignment of policies, procedures and practices; <i>or</i> risk appetite is moderate with effective risk management discipline (with regard to operating assumptions, asset management and broader enterprise); <i>or</i> good ability to execute strategic plan that incorporates a range of potential responses to adversity. | Fairly good quality of internal and external financial reporting and alignment of policies, procedures and practices; <i>or</i> risk appetite is fairly considerable or increasing (with regard to operating assumptions, asset management and broader enterprise); <i>or</i> fairly good ability to execute strategic plan that incorporates potential responses to adversity. | Poor quality of internal and external financial reporting and alignment of policies, procedures and practices; <i>or</i> risk appetite is considerable and introduces challenges that are difficult to manage; <i>or</i> risk management not well matched to enterprise (with regard to operating assumptions, asset management and broader enterprise); <i>or</i> limited ability to execute strategic plan that incorporates potential responses to adversity. | Very poor quality of internal and external financial reporting and alignment of policies, procedures and practices; <i>or</i> risk appetite is very considerable or risk management is ineffective (with regard to operating assumptions, asset management and broader enterprise); <i>or</i> very poor ability to execute strategic plan or limited potential responses to adversity. | Extremely poor quality of internal and external financial reporting and alignment of policies, procedures and practices; <i>or</i> large appetite for risk or risk management likely to create credit difficulty (with regard to operating assumptions, asset management and broader enterprise); <i>or</i> extremely poor ability to execute strategic plan or respond to adversity. | Extremely poor quality of internal and external financial reporting combined with no likelihood of improvement; <i>or</i> ineffective risk management (with regard to operating assumptions, asset management and broader enterprise); <i>or</i> extremely poor ability to execute strategic plan with essentially no ability to respond to adversity. |

\*2 For the linear scoring scale, the Aaa endpoint value is 30%. A value of 30% or better equates to a numeric score of 0.5. The C endpoint value is -6%. A value of -6% or worse equates to a numeric score of 21.5.

### Factor 3: Financial Resources and Liquidity (Standard Weight: 30%) (Balance-Sheet-Heavy Weight: 40%)

#### Why It Matters

A nonprofit's financial resources provide an important indication of its ability to withstand periods of volatility in its operating environment. Some nonprofits have significant endowment funds that are restricted to supporting certain elements of their missions in perpetuity, while others have accumulated wealth with few if any spending restrictions, for example from retained operating surpluses. The degree of external restrictions limiting the purpose or timing of spending, including investment strategies, is a critical component of our analysis.

More affluent nonprofits are usually better positioned to weather prolonged periods of economic and market volatility, helping to ensure that they can service their debt obligations on a timely basis.

This factor comprises three sub-factors:

#### *Total Cash and Investments*

A nonprofit organization's total cash and investments is an indication of its financial flexibility and ability to generate investment income.

#### *Spendable Cash and Investments to Operating Expenses*

Operating reserves are an important indicator of liquidity because a nonprofit may not have full, immediate access to its total financial resources. The ratio of spendable cash and investments to operating expenses indicates the extent to which a nonprofit could use financial reserves to meet expenses over time, without earning any additional revenue. Because some funds are restricted, it is important to consider only those that are currently available, plus those that can be accessed over a period of time (e.g. temporarily restricted or designated for a specific purpose, but available to the nonprofit). This sub-factor is of particular importance during periods of financial stress when revenue may be subject to volatility or declines.

#### *Monthly Days Cash on Hand*

Monthly days cash on hand is an important indication of how many days a nonprofit could continue to pay operating expenses with existing unrestricted cash and investments in the absence of additional revenue. It provides meaningful insights into a nonprofit organization's liquidity profile.

#### How We Assess It for the Scorecard

##### **TOTAL CASH AND INVESTMENTS:**

Financial resources are measured or estimated by total cash and investments in millions of US dollars.

##### **SPENDABLE CASH AND INVESTMENTS TO OPERATING EXPENSES:**

The numerator is spendable cash and investments, which excludes the permanently restricted portion of total cash and investments. The denominator is operating expenses.

##### **MONTHLY DAYS CASH ON HAND:**

Monthly days cash on hand is the number of days a nonprofit could continue to pay cash operating expenses from existing unrestricted cash and investments in the absence of additional revenue, in a scenario of equal daily expenditures. The numerator is total available cash and investments that can be accessed within 30 days and are free from external restriction. The denominator is total annual expenses (less depreciation and other material non-cash expenses) divided by 365 days.

## FACTOR 3

**Financial Resources and Liquidity (30% / 40%)**

| Sub-factor   | Sub-factor Weight | Aaa        | Aa              | A              | Baa           | Ba           | B            | Caa          | Ca           | C         |
|--|-------------------|------------|-----------------|----------------|---------------|--------------|--------------|--------------|--------------|-----------|
| Total Cash and Investments in Millions <sup>*3</sup>               | 10% / 10%         | ≥ \$1,000  | \$250 - \$1,000 | \$100 - \$250  | \$20 - \$100  | \$15 - \$20  | \$10 - \$15  | \$5 - \$10   | \$3 - \$5    | < \$3     |
| Spendable Cash and Investments to Operating Expenses <sup>*4</sup> | 10% / 20%         | ≥ 4x       | 2x - 4x         | 1x - 2x        | 0.3x - 1x     | 0.2x - 0.3x  | 0.15x - 0.2x | 0.1x - 0.15x | 0.05x - 0.1x | < 0.05x   |
| Monthly Days Cash on Hand <sup>*5</sup>                            | 10% / 10%         | ≥ 600 days | 400 - 600 days  | 200 - 400 days | 90 - 200 days | 50 - 90 days | 25 - 50 days | 15 - 25 days | 10 - 15 days | < 10 days |

\*3 For the linear scoring scale, the Aaa endpoint value is \$2 billion. A value of \$2 billion or better equates to a numeric score of 0.5. The C endpoint value is \$1 million. A value of \$1 million or worse equates to a numeric score of 21.5.

\*4 For the linear scoring scale, the Aaa endpoint value is 8x. A value of 8x or better equates to a numeric score of 0.5. The C endpoint value is 0.01x. A value of 0.01x or worse equates to a numeric score of 21.5.

\*5 For the linear scoring scale, the Aaa endpoint value is 850 days. A value of 850 days or better equates to a numeric score of 0.5. The C endpoint value is 5 days. A value of 5 days or worse equates to a numeric score of 21.5.

### Factor 4: Leverage (Standard Weight: 20%) (Balance-Sheet-Heavy Weight: 25%)

#### Why It Matters

Leverage is an important indicator of a nonprofit's financial flexibility and long-term viability, including its ability to adapt to changes in the economic and business environments in the segments in which it operates. Debt affordability is highly related to leverage and incorporates the ability of an entity to meet its debt service obligations.

Leverage results from a nonprofit's financing decisions, and it may also provide insight into the strength and diversity of the organization's funding sources as well as its risk appetite. Broad capital funding strategies contribute to credit strength by reducing reliance on any single source and ensuring ongoing renewal and replacement.

A higher amount of financial reserves relative to debt and debt-like obligations reduces the risk that either short- or medium-term operating weakness will result in default. The importance of a nonprofit's financial resource cushion relative to its debt depends, in part, on its debt structure, its intended source of repayment, and the strength and consistency of its operations.

The factor comprises two sub-factors:

#### *Spendable Cash and Investments to Total Adjusted Debt*

A nonprofit organization's ratio of spendable cash and investments to total adjusted debt is an important indicator of its ability to repay bondholders with financial resources that can be accessed over time. This measure is of particular importance for nonprofit organizations with non-amortizing debt structures that do not intend to pay down debt from annual cash flow.

### Total Adjusted Debt to Operating Revenue

The ratio of total debt to operating revenue provides an indication of the scope of the nonprofit's operations (as opposed to financial reserves) relative to the debt burden.

### How We Assess It for the Scorecard

#### SPENDABLE CASH AND INVESTMENTS TO TOTAL ADJUSTED DEBT:

The numerator is spendable cash and investments, which excludes the permanently restricted portion of total cash and investments, and the denominator is total adjusted debt.<sup>6</sup>

#### TOTAL ADJUSTED DEBT TO OPERATING REVENUE:

The numerator is total adjusted debt, and the denominator is operating revenue.

#### FACTOR 4

#### Leverage (20% / 25%)

| Sub-factor   | Sub-factor Weight | Aaa    | Aa           | A            | Baa           | Ba            | B            | Caa          | Ca            | C       |
|--|-------------------|--------|--------------|--------------|---------------|---------------|--------------|--------------|---------------|---------|
| Spendable Cash and Investments to Total Adjusted Debt <sup>6</sup> | 10% / 25%         | ≥ 5x   | 2x - 5x      | 0.75x - 2x   | 0.25x - 0.75x | 0.15x - 0.25x | 0.1x - 0.15x | 0.05x - 0.1x | 0.03x - 0.05x | < 0.03x |
| Total Adjusted Debt to Operating Revenue <sup>7</sup>              | 10% / 0%          | ≤ 0.1x | 0.1x - 0.25x | 0.25x - 0.5x | 0.5x - 1x     | 1x - 2x       | 2x - 3x      | 3x - 4x      | 4x - 6.25x    | > 6.25x |

<sup>6</sup> For the linear scoring scale, the Aaa endpoint value is 8x. A value of 8x or better equates to a numeric score of 0.5. The C endpoint value is 0.01x. A value of 0.01x or worse equates to a numeric score of 21.5.

<sup>7</sup> For the linear scoring scale, the Aaa endpoint value is 0x and equates to a numeric score of 0.5. The C endpoint value is 7x. A value of 7x or worse equates to a numeric score of 21.5, as does negative operating revenue.

## Other Rating Considerations

Ratings may include 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; legal structure; the quality and experience of management; assessments of 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 may cause ratings to be different from scorecard-indicated outcomes.

### Multi-Year Trends

The momentum and direction of credit trends are integral to our forward-looking analysis. Prospects for gifts and other revenues, operating expenses and capital spending are important to nonprofit's credit profiles. Trend analysis helps inform our evaluation of the budgets and forecasts provided by nonprofits, and sometimes reveals underlying credit issues not evident in a point-in-time analysis. The pace at which a trend develops can influence the magnitude of the credit impact. Deterioration of

<sup>6</sup> Debt is adjusted for unfunded pension liabilities, operating leases and guaranteed debt obligations. Please see Appendix A for more details.

credit quality can occur quickly, particularly if management is slow or fails to address a fundamental fiscal imbalance.

### Other Liabilities

Examples of other liabilities we may consider include other post-employment benefits and multi-employer pension plans. These long-term liabilities can have immediate expense implications. We may assess the level of these obligations relative to the financial reserves and operations of the nonprofit. We typically review whether the nonprofit or another entity is responsible for making benefit payments and the potential for change through reform. We typically assess the credit impact of partnerships and joint ventures with other organizations or governments, when applicable and material, and may include the partnerships' debt and other aspects as contingent liabilities, depending on structural, strategic and legal considerations.

### Marketable Real Estate

While our spendable cash and investments calculations exclude real estate value of mission-related property, we may consider the potential value of excess real estate or unused land qualitatively. Nonprofits vary widely in their capital intensity and real estate needs, and these needs can change over time. In some cases, a nonprofit owns real estate it does not need that has a clear alternative use, that could be separated from core real estate without affecting ongoing operations, and that has demonstrated market value. For instance, nonprofits that own headquarter facilities in central business districts or other desirable commercial real estate environments have been able to lease a portion of their unused space to other tenants. In some cases, nonprofit organizations own other marketable assets not directly related to their missions, such as fine art objects, that may have some impact on credit quality.

### Regulatory Considerations

Nonprofit organizations 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. Regulatory considerations also play a role in our assessment of an issuer's ability to increase its scope or improve its brand and strategic positioning. For example, changes in federal requirements for tax-exempt status could restrict a nonprofit's ability to increase its revenue and diversify its offerings to attract a wider customer base. 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 Issues

Environmental, social and governance (ESG) considerations may affect the ratings of issuers in this sector. For information about our approach to assessing ESG issues, please see our methodology that describes our general principles for assessing these risks.<sup>7</sup>

In terms of governance, for example, the strategy, financial health and credit position of a nonprofit organization are fundamentally driven by decisions made by its board members and leadership team. This assessment is particularly important when a nonprofit is in a period of transition or financial stress. Among the typical areas of focus are the composition of a nonprofit's board and senior management team; its ability to develop and execute short- and long-range plans; the customization of enterprise risk management and oversight based on business complexity; and the nonprofit organization's ability

<sup>7</sup> A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

and willingness to measure performance and implement change based on internal objectives or shifts in the competitive landscape. We may also consider audit committee financial expertise, the incentives created by executive compensation packages, related party transactions, interactions with outside auditors and organizational 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' comments in financial reports and unusual financial statement restatements or delays in regulatory filings may indicate weaknesses in internal controls.

### Liquidity and Investment Oversight

Liquidity is an important rating consideration for all nonprofit organizations. Liquidity can be particularly important for organizations 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 additional insight into general principles for assessing liquidity, please see our liquidity cross-sector methodology.<sup>8</sup>

The source and predictability of liquidity can affect a nonprofit organization's planning and ability to meet short-term needs. External sources of liquidity may not be available to an organization when needed due to covenants, counterparty risk or market disruptions. Therefore, we consider the organization's internal reserves free from external restrictions, the potential volatility of those reserves and projections of cash flow. Investment management and oversight ties directly to liquidity management and scenario planning based on potential investment market exposure, calls on capital and sensitivity to various asset classes.

While liquidity is considered in the scorecard, when it is very weak, the impact it has on ratings may be much greater than the standard scorecard weight would imply.

We typically assess an organization's broader investment strategies and the associated risks, including liquidity risks. We may consider the long-term investment returns relative to peers and industry benchmarks, and relative to planned spending from endowments.

### Debt Structure

The debt structure and its effect on a nonprofit's financial operations may be an important differentiator of credit profiles. Nonprofits may structure their debt in such a way that debt service payments consume a significant portion of their budgets. Debt structures characterized by relatively high debt service payments may also result in very low coverage of debt service by net income. Variable rate debt issuers also face interest rate risk and liquidity risks due to failed remarketings. Debt structure may be an important driver of a nonprofit's ability to manage its financial operations and to meet its debt obligations.

### 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 are varied and can include natural disasters, legal judgments, security incidents, and sudden regulatory changes or liabilities. Some other types of event risks include M&A, asset sales, spin-offs, litigation, or significant cyber-crime events. Event risk analysis for

<sup>8</sup> A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

nonprofits typically focuses on the nature of the disruption or damage, the cost of remediation, lost revenue, potential insurance coverage for property damage or business disruption, and plans to pay for the costs of recovery and to respond to changes to the operating model.

### Government and Institutional Support

Government support affects many aspects of nonprofit organizations. Government policies and regulations can add to a nonprofit organization's credit strength if they enhance oversight or financial stability, or detract if they limit a nonprofit's ability to adjust to changes in its operating environment. While the regulatory and legal environment are considered in the Strategic Positioning sub-factor, important strengths or weaknesses related to government interactions may increase the importance of this sub-factor in our credit analysis, or they may be considered outside the scorecard. For example, a material negative change in tax-exemption status could cause assigned ratings to be lower than scorecard-indicated outcomes for affected nonprofit organizations.

Some nonprofits obtain large, consistent support from corporations. The credit profile of nonprofit organizations can be affected when corporate donors change their philanthropic strategy, are acquired, or relocate. Nonprofit organizations may also have meaningful relationships with external trusts or foundations that can affect their credit profiles.

Some nonprofits are government-related issuers. Please also see our cross-sector methodology that describes how we incorporate support in these cases.<sup>9</sup>

### Assigning Issuer-Level and Instrument-Level Ratings

After considering the scorecard-indicated outcome, other rating considerations and relevant cross-sector methodologies, we typically assign an instrument-level rating. For issuers that benefit from rating uplift from government ownership, we may assign a Baseline Credit Assessment. We may also assign an issuer rating.

Occasionally, a nonprofit may issue a debt series with different liens on revenue, which may be notched down from the senior instrument-level rating. Senior debt has a first lien on revenue and subordinate debt has a junior lien; sometimes, a nonprofit will issue an additional series of debt with a third lien or lower. We assess the effect of subordination based on analysis of the revenue coverage for all debt classes as well as the coverage of senior and subordinate debt classes by revenue net of debt service on each prior lien. We may notch subordinate debt down by one notch or more per debt class if our analysis shows material increased risk of default and loss to debt with subordinate liens.

### Assumptions

Key rating assumptions that apply in this sector include our view that sovereign credit risk is strongly correlated with that of other domestic issuers, that legal priority of claim affects average recovery on different classes of debt sufficiently to generally warrant differences in ratings for different debt classes of the same issuer, and the assumption that access to liquidity is a strong driver of credit risk.

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.

<sup>9</sup> A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

## Limitations

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

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### 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 tool focused on indicators for relative credit strength. 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 sub-factor and 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 issuer's circumstances.

Factors that are outside the scorecard, including those discussed above in the "Other Rating Considerations" section, may be important for ratings, and their relative importance may also vary from issuer to issuer. In addition, certain broad methodological considerations described in one or more cross-sector rating methodologies may be relevant to ratings in this sector.<sup>10</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 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.

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### 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. Issuers 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 rating considerations, typically diminishes. In any case, predicting the future is subject to substantial uncertainty.

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<sup>10</sup> A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.



## Appendix A: 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 sub-factor or factor,<sup>11</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 issuer'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 an issuer's performance as well as for peer comparisons. Financial ratios, 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.

We adjust financial statement amounts and related quantitative credit metrics for operating leases and underfunded pension obligations, as well as guarantees of third-party debt, in accordance with our cross-sector methodology that describes our financial statement adjustments in the analysis of non-financial corporations.<sup>12</sup> For clarity, we do not typically make any of the other adjustments that are described in that cross-sector methodology. We may also make other analytical adjustments that are specific to a particular issuer.

### 2. Mapping Scorecard Factors to a Numeric Score

After estimating or calculating each sub-factor, the outcomes for each of the sub-factors are mapped to a broad Moody's rating category (Aaa, Aa, A, Baa, Ba, B, Caa, Ca or C, 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.

| Aaa | Aa | A | Baa | Ba | B  | Caa | Ca | C  |
|-----|----|---|-----|----|----|-----|----|----|
| 1   | 3  | 6 | 9   | 12 | 15 | 18  | 20 | 21 |

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

<sup>11</sup> 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.

<sup>12</sup> For the select group of US governmental enterprises rated under this methodology, pension adjustments would be made in accordance with our methodology that discusses pension adjustments for state and local governments. A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

metric that constitutes the lowest possible numeric score and the value that constitutes the highest possible numeric score).

| Aaa     | Aa      | A       | Baa      | Ba        | B         | Caa       | Ca        | C         |
|---------|---------|---------|----------|-----------|-----------|-----------|-----------|-----------|
| 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 | 20.5-21.5 |

### 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 3

#### 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                           | $x > 20.5$              |

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 senior unsecured rating or, for government-related issuers, the Baseline Credit Assessment.

## Appendix B: Nonprofit Organizations (Other Than Healthcare and Higher Education) Sector Scorecard

|  | Sub-factor Weight | Aaa   | Aa   | A   | Baa   | Ba   | B   | Caa   | Ca  | C   |
|--|-------------------|---|--|---|---|--|---|---|---|---|
| <b>Factor 1: Market Profile (25% / 15%)</b>          |                   |   |  |   |   |  |   |   |   |   |
| Adjusted Operating Revenue in Millions* <sup>1</sup> | 10% / 5%          | ≥ \$600   | \$250 - \$600  | \$50 - \$250  | \$20 - \$50   | \$15 - \$20  | \$10 - \$15   | \$5 - \$10  | \$2.5 - \$5   | < \$2.5   |
| Brand and Strategic Positioning                      | 15% / 10%         | Exceptional brand strength or deeply entrenched benefits through legal and regulatory framework; and exceptional breadth within revenues, programs and geographies; and expected volatility in results is extremely low to non-existent, supported by market strength and cost-effectiveness. | Excellent brand strength or well-entrenched benefits through legal and regulatory framework; and excellent breadth within revenues, programs and geographies; and expected volatility in results is very low, supported by market strength and cost-effectiveness. | Very good brand strength with long-lasting competitive advantages; and very good breadth within revenues, programs and geographies; and expected volatility in results is low, supported by market strength and cost-effectiveness. | Good brand strength with sustainable competitive advantages; or good breadth within revenues, programs and geographies; or expected volatility in results is moderately low, supported by market strength and cost-effectiveness. | Fairly good brand strength and competitive advantages; or moderate breadth within revenues, programs and geographies; or competitive profile or cost structure increases the likelihood of volatile results. | Poor brand strength with few competitive advantages; or poor breadth within revenues, programs and geographies; or competitive profile or cost structure increases the likelihood of highly volatile results. | Very poor brand strength and no material competitive advantages; or high concentration within revenues, programs and geographies; or modest market presence or cost structure increases the likelihood of extremely volatile results. | Extremely poor brand and competitive prospects; or very high concentration within revenues, programs and geographies; or weak market structure increases the likelihood of extremely volatile results in the near term. | Extremely poor brand and competitive prospects, with little chance of improvement; or extremely high concentration within revenues, programs and geographies; or very weak market structure increases the likelihood of extremely volatile results in the very near term. |

|  | Sub-factor Weight | Aaa   | Aa   | A  | Baa   | Ba  | B  | Caa  | Ca  | C  |
|--|-------------------|---|--|--|---|---|--|--|---|--|
| <b>Factor 2: Operating Performance (25% / 20%)</b> |                   |   |  |  |   |   |  |  |   |  |
| EBIDA Margin* <sup>2</sup>                         | 10% / 5%          | ≥ 20%   | 15% - 20%  | 10% - 15%  | 5% - 10%  | 3% - 5%   | 0% - 3%  | -4% - 0%   | -5% - -4%   | <-5%   |
| Financial Strategy                                 | 15% / 15%         | Exceptionally high quality of internal and external financial reporting and alignment of policies, procedures and practices; <i>and</i> risk appetite is minimal or risk or risks are extremely well-managed (with regard to operating assumptions, asset management and broader enterprise); <i>and</i> exceptional ability to execute strategic plan that incorporates a broad range of potential responses to adversity. | Excellent quality of internal and external financial reporting and alignment of policies, procedures and practices; <i>and</i> risk appetite is limited with excellent risk management discipline (with regard to operating assumptions, asset management and broader enterprise); <i>and</i> excellent ability to execute strategic plan that incorporates a broad range of potential responses to adversity. | Very good quality of internal and external financial reporting and alignment of policies, procedures and practices; <i>and</i> risk appetite is modest with strong risk management discipline (with regard to operating assumptions, asset management and broader enterprise); <i>and</i> very good ability to execute strategic plan that incorporates a range of potential responses to adversity. | Good quality of internal and external financial reporting and alignment of policies, procedures and practices; <i>or</i> risk appetite is moderate with effective risk management discipline (with regard to operating assumptions, asset management and broader enterprise); <i>or</i> good ability to execute strategic plan that incorporates a range of potential responses to adversity. | Fairly good quality of internal and external financial reporting and alignment of policies, procedures and practices; <i>or</i> risk appetite is fairly considerable or increasing (with regard to operating assumptions, asset management and broader enterprise); <i>or</i> fairly good ability to execute strategic plan that incorporates potential responses to adversity. | Poor quality of internal and external financial reporting and alignment of policies, procedures and practices; <i>or</i> risk appetite is considerable and introduces challenges that are difficult to manage; <i>or</i> risk management not well matched to enterprise (with regard to operating assumptions, asset management and broader enterprise); <i>or</i> limited ability to execute strategic plan that incorporates potential responses to adversity. | Very poor quality of internal and external financial reporting and alignment of policies, procedures and practices; <i>or</i> risk appetite is very considerable or risk management is ineffective (with regard to operating assumptions, asset management and broader enterprise); <i>or</i> very poor ability to execute strategic plan or limited potential responses to adversity. | Extremely poor quality of internal and external financial reporting and alignment of policies, procedures and practices; <i>or</i> large appetite for risk or risk management likely to create credit difficulty (with regard to operating assumptions, asset management and broader enterprise); <i>or</i> extremely poor ability to execute strategic plan or respond to adversity. | Extremely poor quality of internal and external financial reporting combined with no likelihood of improvement; <i>or</i> ineffective risk management (with regard to operating assumptions, asset management and broader enterprise); <i>or</i> extremely poor ability to execute strategic plan with essentially no ability to respond to adversity. |

|  | Sub-factor Weight | Aaa        | Aa              | A              | Baa           | Ba            | B            | Caa          | Ca            | C         |
|--|-------------------|------------|-----------------|----------------|---------------|---------------|--------------|--------------|---------------|-----------|
| <b>Factor 3: Financial Resources and Liquidity (30% / 40%)</b>     |                   |            |                 |                |               |               |              |              |               |           |
| Total Cash and Investments in Millions <sup>*3</sup>               | 10% / 10%         | ≥ \$1,000  | \$250 - \$1,000 | \$100 - \$250  | \$20 - \$100  | \$15 - \$20   | \$10 - \$15  | \$5 - \$10   | \$3 - \$5     | < \$3     |
| Spendable Cash and Investments to Operating Expenses <sup>*4</sup> | 10% / 20%         | ≥ 4x       | 2x - 4x         | 1x - 2x        | 0.3x - 1x     | 0.2x - 0.3x   | 0.15x - 0.2x | 0.1x - 0.15x | 0.05x - 0.1x  | < 0.05x   |
| Monthly Days Cash on Hand <sup>5</sup>                             | 10% / 10%         | ≥ 600 days | 400 - 600 days  | 200 - 400 days | 90 - 200 days | 50 - 90 days  | 25 - 50 days | 15 - 25 days | 10 - 15 days  | < 10 days |
| <b>Factor 4: Leverage (20% / 25%)</b>                              |                   |            |                 |                |               |               |              |              |               |           |
| Spendable Cash and Investments to Total Adjusted Debt <sup>6</sup> | 10% / 25%         | ≥ 5x       | 2x - 5x         | 0.75x - 2x     | 0.25x - 0.75x | 0.15x - 0.25x | 0.1x - 0.15x | 0.05x - 0.1x | 0.03x - 0.05x | < 0.03x   |
| Total Adjusted Debt to Operating Revenue <sup>7</sup>              | 10% / 0%          | ≤ 0.1x     | 0.1x - 0.25x    | 0.25x - 0.5x   | 0.5x - 1x     | 1x - 2x       | 2x - 3x      | 3x - 4x      | 4x - 6.25x    | > 6.25x   |

\*1 For the linear scoring scale, the Aaa endpoint value is \$1.3 billion. A value of \$1.3 billion or better equates to a numeric score of 0.5. The C endpoint value is \$1 million. A value of \$1 million or worse equates to a numeric score of 21.5.

\*2 For the linear scoring scale, the Aaa endpoint value is 30%. A value of 30% or better equates to a numeric score of 0.5. The C endpoint value is -6%. A value of -6% or worse equates to a numeric score of 21.5.

\*3 For the linear scoring scale, the Aaa endpoint value is \$2 billion. A value of \$2 billion or better equates to a numeric score of 0.5. The C endpoint value is \$1 million. A value of \$1 million or worse equates to a numeric score of 21.5.

\*4 For the linear scoring scale, the Aaa endpoint value is 8x. A value of 8x or better equates to a numeric score of 0.5. The C endpoint value is 0.01x. A value of 0.01x or worse equates to a numeric score of 21.5.

\*5 For the linear scoring scale, the Aaa endpoint value is 850 days. A value of 850 days or better equates to a numeric score of 0.5. The C endpoint value is 5 days. A value of 5 days or worse equates to a numeric score of 21.5.

\*6 For the linear scoring scale, the Aaa endpoint value is 8x. A value of 8x or better equates to a numeric score of 0.5. The C endpoint value is 0.01x. A value of 0.01x or worse equates to a numeric score of 21.5.

\*7 For the linear scoring scale, the Aaa endpoint value is 0x and equates to a numeric score of 0.5. The C endpoint value is 7x. A value of 7x or worse equates to a numeric score of 21.5, as does negative operating revenue.

## Moody's Related Publications

Credit ratings are primarily determined by 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. An index 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](#).

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