MOODY'S

RATING METHODOLOGY US Charter Schools

1

3

3

5

12

13

16

18

19

Table of Contents:

SUMMARY ABOUT THE RATED UNIVERSE ABOUT THIS RATING METHODOLOGY DISCUSSION OF THE SCORECARD FACTORS ASSUMPTIONS, LIMITATIONS AND RATING CONSIDERATIONS THAT ARE NOT COVERED IN THE SCORECARD OTHER RATING CONSIDERATIONS APPENDIX A: US CHARTER SCHOOL SCORECARD APPENDIX B: METRIC DEFINITIONS MOODY'S RELATED PUBLICATIONS

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Summary

This rating methodology, where we have amended the Analyst Contacts list, updates and replaces the US Charter Schools rating methodology published on August 15, 2016.

This rating methodology explains our approach to assessing credit risk for US charter schools. This document provides general guidance that helps issuers, investors, and other interested market participants understand how key quantitative and qualitative characteristics are likely to affect rating outcomes for US charter schools. This document does not include an exhaustive treatment of all factors that are reflected in our ratings but should enable the reader to understand the qualitative considerations financial information and ratios that are usually most important for ratings in this sector.

This report includes a scorecard which is a reference tool that can be used to approximate credit profiles within this sector in most cases. The scorecard provides guidance for the factors that are generally most important in assigning ratings to issuers in the sector. The weights shown for each factor in the scorecard represent an approximation of their relative importance for rating decisions but actual importance for an individual credit may vary substantially. In addition, ratings are based on our forward-looking expectations. As a result, the scorecard-indicated outcome is not expected to match the rating of each issuer.

THIS RATING METHODOLOGY WAS UPDATED ON SEPTEMBER 27, 2019. WE HAVE UPDATED SOME OUTDATED REFERENCES AND ALSO MADE SOME MINOR FORMATTING CHANGES.

The scorecard contains four factors that are important in our assessment for charter school ratings:

- 1. Scale & Demand
- 2. Operating Performance & Liquidity
- 3. Leverage & Coverage
- 4. Charter Renewal Risk & Government Relations

Highlights of this report include:

- » An overview of the rated universe
- » A summary of the rating methodology
- » A description of factors that drive rating quality
- » Comments on the rating methodology assumptions and limitations, including a discussion of rating considerations that are not included in the scorecard

Our analysis may also be guided by additional publications that describe our approach for analytical considerations that are not specific to any single sector. Examples of such considerations include but are not limited to: pool rating methodologies, the assignment of short-term ratings, the relative ranking of different classes of debt and hybrid securities, how sovereign credit quality affects non-sovereign issuers, and the assessment of credit support from other entities.¹

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 <u>www.moodys.com</u> for the most updated credit rating action information and rating history.

¹ A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

About the Rated Universe

This methodology is applicable to charter schools in the US. Charter schools are privately managed^{1²} public schools operating under a contract (i.e. charter) that governs their operations and is granted by the authorizing body in their state, typically a state education department, school district or university. Charter schools are publicly funded and therefore must participate in state and federal accountability programs. Charter schools cannot charge tuition and must have open enrollment given their 'public' status. Charter schools differ from traditional public schools in a variety of ways, for example in their level of autonomy from various local and state regulatory requirements, and in their staffing levels and curriculum choices.

Revenue bonds issued by charter schools include independent, stand-alone charter school issues and pooled charter school transactions. The bonds of charter schools are typically secured by a revenue pledge on the school's per-pupil funding.

The charter schools sector continues to grow, and as such its credit fundamentals are characterized by multiple speculative elements. Given highly competitive local market environments for charter schools, their typically small scale, and in many cases their nature as start-up enterprises with often unproven management and generally narrowly balanced finances, charter schools across the nation face unique credit challenges.

About This Rating Methodology

This report explains the rating methodology for issuers in the US charter school sector, summarized in the five sections below:

1. Identification of the Scorecard Factors

The scorecard in this rating methodology is comprised of four factors. Some of the four factors are comprised of sub-factors that provide further detail.

EXHIBIT 1 US Charter School Scorecard

Broad Factors	Factor Weighting	Sub-Factors	Sub-Factor Weighting
Scale & Demand	35%	Operating Revenue (\$000)	15%
		Competitive Profile	20%
Operating Performance & Liquidity	20%	Two-year Average Operating Cash Flow Margin (%)	10%
		Monthly Days Cash on Hand	10%
Leverage & Coverage	25%	Debt Service Coverage (x)	15%
		Spendable Cash and Investments to Total Debt (%)	10%
Charter Renewal Risk & Government Relations	20%	Charter Renewal Risk and Government Relations	20%
		Total Scorecard-Indicated Outcome	100%

3 SEPTEMBER 7, 2016

Charter schools' legal structure can take a variety of forms, but they are most typically organized as not-for-profit entities.

2. Measurement or Estimation of Factors in the Scorecard

We explain our general approach for scoring each scorecard factor and show the weights used in the scorecard. We also provide a rationale for why each of these scorecard components is meaningful as a credit indicator (See *Discussion of the Scorecard Factors*).

The information used in assessing the sub-factors is generally found in or calculated from information in schools' financial statements, derived from other observations, or estimated by our analysts.

Quantitative credit metrics may incorporate adjustments to income statement, cash flow statement and balance sheet amounts that Moody's makes on a sector or cross-sector basis. We may also make analytical adjustments as appropriate for comparability or transparency.

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 school'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 historic and expected future performance for periods of several years or more.

3. Mapping Scorecard Factors to a Numerical 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 numerical 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 upon the scale below.

Aaa	Aa	Α	Baa	Ba	В	Caa	Ca
1	3	6	9	12	15	18	20

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. In the text or footnotes, we define the end points 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).

Aaa	Aa	Α	Baa	Ba	В	Caa	Ca	С
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

4. Determining the Overall Scorecard-Indicated Outcome

The numeric score for each sub-factor is multiplied by the weight for that sub-factor, with the results then summed to produce an aggregate weighted factor score. The aggregate weighted factor score is then mapped back to an alphanumeric rating based on the ranges in the table below.

Scorecard-Indicated Outcome	Aggregate Weighted Factor Score
Aaa	x ≤ 1.5
Aa1	1.5 < x ≤ 2.5
Aa2	2.5 < x ≤ 3.5
Aa3	3.5 < x ≤ 4.5
A1	4.5 < x ≤ 5.5
Α2	5.5 < x ≤ 6.5
A3	6.5 < x ≤ 7.5
Baa1	7.5 < x ≤ 8.5
Baa2	8.5 < x ≤ 9.5
Baa3	9.5< x ≤ 10.5
Ba1	10.5< x ≤ 11.5
Ba2	11.5 < x ≤12.5
Ba3	12.5 < x ≤ 13.5
B1	13.5 < x ≤ 14.5
B2	14.5 < x ≤ 15.5
B3	15.5 < x ≤ 16.5
Caa1	16.5 < x ≤ 17.5
Caa2	17.5 < x ≤ 18.5
Caa3	18.5 < x ≤ 19.5
Ca	19.5 < x ≤ 20.5
С	x > 20.5

EXHIBIT 2

For example, an issuer with an aggregate weighted factor score of 11.7 would have a Ba2 scorecard-indicated outcome.³

5. Assumptions, Limitations and Rating Considerations Not Included in the Scorecard

This section, which follows the detailed description of the scorecard factors, discusses limitations in the use of the scorecard to map against actual ratings, some of the additional factors that are not included in the scorecard but can be important in determining ratings, and limitations and assumptions that pertain to the overall rating methodology.

Discussion of the Scorecard Factors

Factor 1: Scale & Demand - 35%

Why it Matters

Scale is an important determinant of a charter school's credit profile as larger schools generally benefit from economies of scale and will typically exhibit a higher capacity to withstand enrollment volatility, economic and demographic changes and state funding adjustments more readily than schools with smaller revenue

In general, the scorecard-indicated outcome is oriented to the revenue-backed bond rating. Individual debt instrument ratings also factor in decisions on notching for seniority level and collateral. The rating of an obligation of a charter school considers the scope and strength of any revenue or asset pledge, and the nature of the pledge is among the reasons that actual ratings may vary from scorecard-indicated outcomes. See also the "Other Rating Considerations" section of this report.

bases. Size is also a proxy for a number of business profile considerations including the level, quality and diversity of programs and services the school can afford to offer to the community. Indeed, a larger size is typically indicative of a track record of academic attractiveness while also conferring a greater ability to invest in existing or new academic offerings.

Assessing the underlying demand characteristics of charter school academic offerings and their relative positioning within a market is also very important as these are core drivers of a school's capacity to generate future revenues and achieve financial stability. A strong brand name and reputation achieved through demonstrated academic outperformance enable a charter school to compete effectively for students, improve enrollment and retention and increase funding associated with those students. Charter schools that remain competitive deliver positive and measurable student outcomes to both parents and public stakeholders. A school with above-average academic performance typically has a reliable wait-list of students that ensures enrollment stability and therefore greater likelihood of financial stability. If a school does not deliver on its promise or fulfill its educational mission, enrollment (and the funding that goes with it) will inevitably decline. Unless management can quickly correct the deficiency, the school is likely to eventually close or have its charter revoked.

The creation of a suitable and appropriate learning environment, capacity for expansion, and the selection of an accessible location are important components that contribute to a school's competitive advantage.

Attractive facilities can be a competitive issue: some charter schools occupy new, purpose-built facilities, while many others use rehabilitated former public schools or modified commercial structures.

The two scorecard sub-factors related to scale and demand are:

- A. Scale
- B. Competitive Profile

How We Assess it for the Scorecard

1A. Scale – 15%

Relevant Metric: Operating Revenue

We use annual Operating Revenue as a measure for scale. To the extent that certain non-operating revenues (per accounting classification) are included in the issuer's revenue pledge, we would include them in our definition of Operating Revenues. The most typical example is unrestricted contributions.

1B. Competitive Profile – 20%

The scoring of this sub-factor is based on a qualitative assessment of the competitive environment in which a charter school operates. We consider a number of aspects within an issuer's competitive landscape with particular emphasis on academic and community reputation, application volume, waiting list, student and teacher retention rates, market share and service area demographics.

While the most prominent characteristics may vary for each issuer, it is often most critical to evaluate a school relative to its most direct competitors, whether these are public, private or other charter schools. As parents or guardians will ultimately be key decision makers about where children enroll, a school's market positioning is typically assessed in light of its academic performance relative to both local or state benchmarks but also relative to other existing competing schools. Indeed, a charter school may perform well above local standards for district schools but may underperform other charter schools with similar educational offerings. Solid market share suggests a sustainable business position with greater ability to weather volatile market conditions.

Factor 1: Scale & Demand (35% Weight)

	Sub- factor Weight	Aaa	Aa	Α	Baa	Ва	В	Caa	Ca	с
Operating Revenue (\$000) ^{*1}	15%	<u>></u> 300,000	150,000 - 300,000	25,000 - 150,000	10,000 - 25,000	3,000 - 10,000	1,700 - 3,000	900 - 1,700	700 - 900	< 700
Competitive Profile	20%	Overall exceptional. Consistently and exceptionally ranked academic leader, state verified results; exceptional prospects for sustained enrollment demand evidenced by retention, application volume, waiting list and service area demographics; extremely limited prospects for new formidable competitors or material improvement of existing competitors; very strong, market share erosion	Overall excellent. Recognized, consistent academic outperformance relative to peers, state verified results; excellent prospects for sustained enrollment demand evidenced by retention, application volume, waiting list and service area demographics; highly limited prospects for new formidable competitors or material improvement of existing competitors; strong market share with no history of market share erosion	Overall very good. Very good academic performance relative to peers, state verified results; very good prospects for sustained enrollment demand evidenced by retention, application volume, waiting list and service area demographics; limited prospects for new formidable competitors or material improvement of existing competitors; strong market share with only very limited history of market share erosion	Overall good. Consistent, good academic performance relative to peers, state verified results; good prospects for sustained enrollment demand evidenced by retention, application volume, waiting list and service area demo- graphics; new or newly formidable competitors unlikely to meaningfully impact market share	Overall fair. Average academic performance among peers, state verified results; fair prospects for sustained enrollment demand evidenced by retention, application volume, waiting list and service area demo- graphics; or new or newly formidable competitors could have limited impact on market share	Overall poor. Challenged or declining academic results, state verified results; or poor prospects for sustained enrollment demand evidenced by retention, application volume, waiting list and service area demo- graphics; or newly formidable competitors likely to impact market share	Overall very poor. Declining academic results, or unavailability of timely and verified results; very poor prospects for sustained enrollment demand evidenced by retention, application volume, waiting list and service area demo- graphics; market share erosion due to competition and/or reputation	Overall extremely poor. Verified and timely academic performation unavailable; or extremely poor prospects for sustained enrollment demand evidenced by retention, application volume, waiting list and service area demo- graphics; or modest and declining market share	N.A.

*1 For the linear scoring scale, the Aaa end point value is \$555 million. A value of \$555 million or better equates to a numerical score of 0.5. The C end point value is \$400,000. A value of \$400,000 or worse equates to a numerical score of 21.5

Factor 2: Operating Results & Liquidity -20%

Why it Matters

Strong operating performance enables a school to maintain its operations, repay its debt, and invest in programs and facilities and ultimately fulfill its primary educational mission while maintaining competitiveness.

Unlike traditional public K-12 districts, where revenues supporting the general obligation debt typically include a tax levy, charter schools often must fund long-term fixed costs including debt repayment from the same per-student funding that supports their main educational programs and any pay-go capital financing.

In all states, the majority of funding for charter schools comes from the state or local school district on a per-pupil basis, i.e. funding follows the student. Generally, charter schools receive their annual funding in allotments similar to K-12 districts' distribution schedules. Some states provide different levels of per-pupil

funding than a traditional school district given a charter school's limitations in accessing local property taxes for funding. Also, depending on the state, the charter school may receive this funding directly from the state or via the local district from a direct pass-through or other mechanism.

Trends in operating performance provide insight into a school's ability to align revenue with expenditures and maintain financial balance. Consistent, steady generation of cash helps ensure a sustainable business model. A financially healthy school will generate sufficient net income to support strategic, financial and capital investments.

Given charter schools' reliance on passive revenue received from the state or local school district, a school's flexibility to reduce expenses enables it to adapt to changes in its operating environment. The extent to which a charter school can react to economic conditions and events is a function of its market position, mission, labor costs (union/tenure), capital intensity, political environment, and economic conditions. Further, charter schools may be subject to enrollment caps that can limit their ability to translate market strength into revenue growth.

While weak operating results in a single year may not indicate elevated credit risk, consecutive years of weak financial performance typically indicate competitive or management problems. Consistent positive operating cash flow generation, on the other hand, generally is an indication of the strength of a charter school's forecasting, budgeting, and financial planning process, as well as ability and willingness to make expense reductions during challenging cycles.

Cash and investments that are free from external restrictions and can be readily liquidated are critical to a charter school's near-term ability to meet operating, debt service, and other needs. An entity with greater liquid reserves will have an improved level of flexibility relative to annual operations, allowing it to take advantage of potential market opportunities or conversely weather adverse changes in enrollment or state level funding. For charter schools that are small and highly leveraged, without economies of scale, any unanticipated change relative to budget will have a more severe impact on financial health in the absence of large positive cash balances.

The two relevant scorecard sub-factors are:

- A. Operating Performance
- B. Liquidity

How We Assess it for the Scorecard

2A. Operating Performance – 10%

Relevant Metric: Two-year Average Operating Cash Flow Margin

For each fiscal year (or 12 month period) the numerator is Operating Cash Flow, and the denominator is Operating Revenue. The two single-year margins are summed and divided by two.

Operating Cash Flow is equal to Operating Revenue minus operating expenses, plus the sum of interest, depreciation and amortization and other material non-cash expenses.

Operating Revenue is defined in factor 1A Scale.

2B. Liquidity -10%

Relevant Metric: Monthly Days Cash on Hand

The numerator is total cash and investments plus other unrestricted funds for operations, less restricted funds such as debt service reserve funds, then multiplied by 365. The denominator is total operating expenses minus the sum of interest, depreciation and amortization and other material non-cash expenses.

Factor 2: Operating Performance & Liquidity (20% Weight)

	Sub-factor Weight	Aaa	Aa	Α	Baa	Ва	в	Caa	Ca	с
Two-year Average Operating Cash Flow Margin (%)* ²	10%	≥ 37	30 - 37	24 - 30	14 - 24	6 - 14	0 - 6	(5) - 0	(10) – (5)	< (10)
Monthly Days Cash on Hand ^{*3}	10%	≥ 450	320 - 450	200 - 320	100 - 200	50 - 100	30 - 50	15 - 30	1 - 15	< 1

^{*2} For the linear scoring scale, the Aaa end point value is 45%. A value of 45% or better equates to a numerical score of 0.5. The C end point value is negative 26%. A value of negative 26% or worse equates to a numerical score of 21.5

*³ For the linear scoring scale, the Aaa end point value is 520. A value of 520 or better equates to a numerical score of 0.5. The C end point value is 0. A value of 0 or worse equates to a numerical score of 21.5

Factor 3: Leverage & Coverage – 25%

Why it Matters

A charter school's financing decisions have a direct impact on its credit quality. They provide insight into a school's internal risk calculus, within which it weighs the benefits of capital investment with the cost of servicing incremental debt in the context of its reserves and operating performance. Because the typical public charter school's primary operating revenue is also tapped to repay long-term debt, determining the amount of resources for capital investment and servicing incremental debt is an important measure. The ability of a school to support its leverage profile depends on many factors including debt structure, strength and consistency of its operations, and management philosophy.

A key indicator of a school's balance sheet strength and flexibility is the level of available liquid resources relative to total debt. A higher degree of reserves relative to debt reduces the risk that either short- or medium-term operating weakness will result in financial stress. Importantly, this metric can also provide perspectives on management's approach to balancing alternative strategies of accumulating reserves for potential one-time uses versus using debt to pay for capital needs. The importance of a charter school's financial resource cushion to debt depends, in part, on its debt structure, intended source of repayment, and the strength and consistency of its operations. Although a charter school's ability to issue debt may be governed by its state, borrowing decisions also reflect a particular school board's philosophy toward and expertise in long-term financing strategies.

The two sub-factors related to leverage that we consider in our rating assessments are:

- A. Debt Service Coverage
- B. Financial Leverage

3A. Debt Service Coverage - 15%

We assess the affordability of a charter school's debt by focusing on coverage of annual debt service obligations from the school's operations.

Relevant Metric: Annual Debt Service Coverage

The numerator is annual Operating Cash Flow (see definition in factor 2A Two-year Average Operating Cash Flow Margin). The denominator is annual principal and interest payments on long-term debt.

3B. Financial Leverage - 10%

Relevant Metric: Spendable Cash and Investments to Total Debt

The numerator is total cash and investments plus other unrestricted funds for operations, less restricted funds such as debt service reserve funds. The denominator is total debt.

Factor 3: Leverage & Covera	Factor 3: Leverage & Coverage (25% Weight)											
	Sub- factor Weight	Aaa	Aa	A	Baa	Ba	В	Caa	Ca	с		
Debt Service Coverage (x) *4	15%	≥8	4 - 8	2 -4	1.2 - 2	1.1 – 1.2	1 – 1.1	0 - 1	(0.5) - 0	< (0.5)		
Spendable Cash and Investments to Total Debt (%) * ⁵	10%	≥ 100	75 - 100	45 - 75	28 - 45	10 - 28	7 - 10	3 - 7	0 - 3	< 0		

*4 For the linear scoring scale, the Aaa end point value is 10.0x. A value of 10.0x or better equates to a numerical score of 0.5. The C end point value is negative 1x. A value of negative 1x or worse equates to a numerical score of 21.5

^{*5} For the linear scoring scale, the Aaa end point value is 125%. A value of 125% or better equates to a numerical score of 0.5. The C end point value is negative 5%. A value of negative 5% or worse equates to a numerical score of 21.5

Factor 4: Charter Renewal Risk and Government Relations – 20%

Why it Matters

A charter is typically granted to a school for a length of time that can range from five years to 20 years. Because of this, renewal of a school's charter is crucial to the continued viability of the charter school and to bondholder security.⁴ The degree to which the governmental authorizing entity clearly and transparently delineates the criteria for charter renewal can create a significant advantage for those charter schools under its purview. Also important is a clearly outlined appeals process should a school's charter be rejected or not be renewed. Charters of clearly successful schools would be expected to be renewed in a timely manner, but this would also often depend upon the political support for the sector. In cases where charters are granted for longer periods of time, we would view such circumstances as a material credit strength, especially if the term of the charter surpasses the final maturity of rated debt. Where charter renewal risk is elevated, this risk typically dominates the credit profile of the issuer and the assigned rating (see the "Other Rating Considerations" section below).

Authorizers serve as the in-state regulators of that particular state's charter school industry. As such, the ability of a school to consistently meet performance criteria established by the authorizer substantially increases the likelihood of the school's continued existence. Strong authorizers work closely with charter schools in order to maximize a school's chance of sustainability while ensuring the efficient use of public funds for positive student outcomes within a transparent and two-way accountability dynamic. However, the level of resources available to authorizers varies widely across states, resulting in wide disparities in transparency and disclosure, accountability and independence, which ultimately result, all else equal, in differing susceptibility to charter losses.

At the individual school level, the philosophy, financial health, and market position are all fundamentally driven by decisions made by a charter school's leadership. Charter schools have varying degrees of

⁴ Bondholder security is typically a revenue pledge on the school's per-pupil funding.

management or educational experience and will therefore have varying levels of success at adapting to any change in their authorizers' policies or performance benchmarks. Similarly, the ability of the charter school's board and management to navigate through potentially shifting state government support for charter schools directly affects debt levels, credit quality, and the risk of adverse changes in financing and capital structure, as well as charter renewal – all of which are incorporated in our ratings.

Similar to authorizer relations, governmental support is also crucial for charter schools because state aid represents their primary revenue source. A supportive political environment for charter schools will lead to more predictable long-term funding. A charter school's viability heavily depends on the willingness of the state to provide predictable funding for charter schools regardless of political constraints and economic cycles. A number of states have enacted statutory requirements specifically for charter schools that provide a predictable level of funding that must be met by law. This is important because traditional school districts, which are part of a charter school's competitive landscape, often have the ability, although limited, to tap into local resources through property taxes to at least partially mitigate changes in state funding. Often, flat funding may not be sufficient to keep pace with inflation, required expenses, or government mandates.

How We Assess it for the Scorecard

In assessing charter renewal and government relations, we consider the track record of charter renewal. We also typically assess the quality of the school's charter authorizer in terms of the transparency, timeliness and predictability of its policy settings and practices, including the disclosure of performance standards and charter status. A school's strong financial and academic performances relative to authorizers' standards are, all else equal, an indication of a higher likelihood of charter renewal. Similarly, our view on the capacity of a school's board/management to swiftly adapt its strategy and policies partly drives our assessment of charter renewal risk because it affects a school's ability to withstand any unforeseen change in the authorizer's performance standards. Our assessment of the relationship between charter renewal risk and government relations includes the prospects for public funding – the timeliness and predictability of government support. Considerations include a state's track record of charter school funding through economic and political cycles, and the ability of the individual school's management to reconcile state support with near-term and long-term needs and ultimately retain its legal charter to operate.

While our scoring of this qualitative factor typically takes into account where each of the various components fall in the spectrum, one characteristic may be sufficiently important to a particular issuer that it is determinative of the factor score. Given the importance of charter renewal risk to a school's credit profile, the score for this factor would not typically be higher than our assessment of the charter renewal component. Likewise, a weakness in the transparency of the renewal process might be determinative of the score even if charter renewal risk for a particular school were currently low, because low transparency regarding required standards and process lowers the predictability of charter renewal more generally.

Factor 4: Charter Renewal Risk and Government Relations (20% Weight)

	Sub- factor Weight	Aaa	Aa	A	Baa	Ва	В	Caa	Ca	с
Charter Renewal Risk and Government Relations	20%	Overall exceptional. Demonstrated history of charter renewal and extremely limited likelihood of charter loss; exceptional authorizer policies, processes and practices; exceptional transparency around performance standards and charter status; exceptional performance relative to authorizer standards; exceptional prospects for public funding; exceptionally strong board leadership and management capabilities	Overall excellent. Demonstrated history of charter renewal and extremely limited likelihood of charter loss; excellent authorizer policies, processes and practices; excellent transparency around performance standards and charter status; exceptional performance relative to authorizer standards; excellent prospects for public funding; excellent board leadership and management capabilities	Overall very good. Demonstrated history of charter renewal with very good prospects for ongoing renewal; very good authorizer policies, processes and practices; very good transparency around performance standards and charter status; very good performance relative to authorizer standards; very good persopects for public funding; very good board leadership and management capabilities	Overall good. Limited history of charter renewal with good prospects for ongoing charter renewal; good authorizer policies, processes and practices; good transparency around performance standards and charter status; good performance relative to authorizer standards; good performance relative to authorizer standards; good prospects for public funding; good board leadership and management capabilities	Overall fair. Limited or no history of charter renewal or fair prospects for ongoing charter renewal; fair authorizer policies, processes and practices; fair transparency around performance standards and charter status; fair performance relative to authorizer standards; fair prospects for public funding; fair board leadership and management capabilities	Overall poor. Limited or no history of charter renewals or poor prospects for charter expiration date approaching; weaker authorizer policies; poor transparency around performance standards and charter status; poor performance relative to authorizer standards; poor prospects for public funding; weaker board leadership and management capabilities	Overall very poor. Limited or no history of charter renewals or elevated risk of non-renewal and charter expiration date approaching; very poor authorizer policies, processes and practices; very poor transparency around performance standards and charter status; poor performance relative to authorizer standards; very poor prospects for public funding; very poor board leadership and management capabilities	Overall extremely poor. Limited or no history of charter renewals or charter revoked or substantial likelihood of charter loss. Extremely poor authorizer policies, processes and practices; extremely poor transparency around performance standards and charter status; extremely poor performance and prospects for public funding; extremely weak board and management capabilities	N.A.

Assumptions, Limitations and Rating Considerations That Are Not Covered in the Scorecard

The scorecard in this rating methodology represents a decision to favor simplicity that enhances transparency and to avoid greater complexity that might enable the scorecard to map more closely to actual ratings. Accordingly, the factors in the scorecard do not constitute an exhaustive treatment of all of the considerations that are important for ratings of issuers in this sector. In addition, our ratings incorporate expectations for future performance. In some cases, our expectations for future performance may be informed by confidential information that we cannot disclose. In other cases, we estimate future results based upon past performance, industry trends, competitor actions or other factors. In either case, predicting the future is subject to the risk of substantial inaccuracy.

Assumptions that may cause our forward-looking expectations to be incorrect include unanticipated changes in any of the following factors: the macroeconomic environment and general financial market conditions, industry competition, disruptive technology, regulatory and legal actions.

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 often 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.

In choosing metrics for this rating methodology scorecard, we did not explicitly include certain important factors that are common to all issuers in any sector, such as assessments of governance and the quality of financial reporting and information disclosure. Ranking these factors by rating category in a scorecard would in some cases suggest too much precision in the relative ranking of particular issuers against all other rated issuers in this sector and other sectors.

Ratings may include additional factors that are difficult to quantify or that have a meaningful effect in differentiating credit quality only in some cases, but not all, for instance financial controls and political interference. Litigation, technology risk as well as changes to household behavioral patterns, competitor strategies and macroeconomic trends also affect ratings. While these are important considerations, it is not possible to precisely express these in the rating methodology scorecard without making the scorecard excessively complex and significantly less transparent. Ratings may also reflect circumstances in which the weighting of a particular factor will be substantially different from the weighting suggested by the scorecard.

For example, liquidity and charter renewal risk are examples of considerations that are included in the scorecard in fixed weightings, but they may become critical to ratings and have a much higher effective weighting when there is an acute weakness. Extremely weak liquidity magnifies default risk, as does a likely charter termination. The loss of a charter is a leading cause of defaults in the sector. A charter school's rating is unlikely to exceed our assessment of its charter renewal risk. Moreover, it is highly unlikely that the issuer's rating would be investment grade if our scoring of its charter renewal risk, considered as an independent factor, were Ba or lower.

As an issuer or debt instrument experiences financial distress such that it has defaulted or is very likely to default or become impaired, ratings typically include additional considerations not captured in the scorecard that reflect our expectations for recovery of principal and interest. Such considerations are often very idiosyncratic to the specific circumstances of the distressed issuer, and may include the capital structure, the value of collateral, the investor base and its views of future prospects, and management's incentives. Consequently the scorecard-indicated outcome will often differ from the assigned rating in these cases.

Other Rating Considerations

Ratings reflect a number of additional considerations. These include but are not limited to: multi-year trends, debt structure considerations, financial disclosure, transparency and controls, pension and other post-employment benefit obligations and use of private management companies.

Multi-Year Trends

The direction of credit trends, strengthening or deteriorating, provides a context for the quantitative metrics used in the scorecard. Historical trends may also serve as a basis for projecting future performance. Our expectations of future performance, as well the level of confidence we have in an issuer's ability to achieve certain levels of performance, are very important to ratings. Charter schools often experience abrupt and rapid changes in financial performance and credit profile, such that an annual financial statement may be a delayed indicator of improvement or weakness. Enrollment growth or declines, the level and consistency of funding, are all critical to our assessment of multi-year trends.

Additional Liquidity Considerations

While there is a liquidity-related factor in the scorecard, we may also find it useful to consider liquidity from other perspectives. For instance, we may perform a sources and uses analysis, which typically includes an assessment of various sources of liquidity in terms of their continuing availability, as well as a projection of cash outlays for earmarked and other purposes, to estimate what would be available versus required in a

stress scenario. Sources of liquidity for charter schools that we typically consider include readily available cash, operating funds, and longer-term investments. We may also consider external sources of liquidity that may be available, such as external bank facilities, depending on their covenants or other terms that may limit or prohibit access to liquidity when a charter school may need it most. A source and uses analysis that shows a material weakness may cause actual ratings to be below scorecard-indicated outcomes.

The extent to which management employs risk and liquidity management can also be an important consideration, including the extent of integration of treasury, investment, and finance functions as well as the use of scenario-risk assessments that include identifying and prioritizing actions to preserve or improve liquidity.

Debt Structure Considerations

The maturity, security, and terms and conditions of a debt instrument affect the amount of and circumstances under which a charter school is expected to make either regularly scheduled or accelerated payments. A charter school's debt structure, therefore, can have liquidity and cash flow implications that affect all creditors. Covenant provisions may protect creditors, but onerous provisions can create liquidity and funding challenges for issuers.

Security provisions and covenants can determine the priority of payments among creditors, which are reflected in instrument ratings when the differences are meaningful. The scorecard is oriented to a revenue bond backed by a school's revenue, the largest portion of which is per-pupil funding. If the actual security is materially stronger, for instance if it includes a revenue pledge and a meaningful asset pledge, the actual rating may be higher than the scorecard-indicated outcome. If the pledge is materially weaker, for instance if it includes only a portion of per-pupil funding or creditors other than bondholders have security that effectively subordinates bondholders, actual ratings may be lower than scorecard-indicated outcomes.

Financial Disclosure, Transparency, and 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 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.

Access to local property taxes

In some states, charter schools are able to access local sources of revenue. For example, charter schools may have some limited access to local property taxes based on enrollment or local voter-approved initiatives that provide charter schools additional revenue diversity as well as some level of insulation from state budget cycles, thereby increasing revenue stability. In such instances, when the amount of related additional resources is material, the actual rating may be higher than the scorecard-indicated outcome.

Pension and Other Post-Employment Benefit Obligations

Pensions and other post-employment benefits are long-term liabilities that also add immediate fixed operating expenses, and are thus potentially significant credit factors. For charters, however, they are typically modest relative to other public finance sectors such as traditional K-12 schools. Nevertheless, the current payment responsibility relative to the resources of the charter school and the size of its operations provide context for the magnitude of the burden. Other considerations important to the assessment of the potential financial burden include whether the charter school or another level of government is responsible for making benefit payments, the funded status for pension plans, the likelihood that employer contributions to the plan will increase, and the status of benefit reforms. In cases where a charter school participates in a multiple-employer pension plan with state or local public entities, our analytic framework

for financial adjustments is detailed in our cross-sector rating methodology for adjustments to US state and local government reported pension data⁵.

Use of Private Management Companies

In addition to stand-alone charter schools, some charters can also be members of a network led by an education management organization, either non-profit or for-profit. Education management organizations (EMOs) emerged in the early 1990s. Typically, an EMO is a private organization or a firm that manages public schools. A contract details the terms under which the EMO is granted authority to run one or more schools in return for a commitment to produce measurable outcomes. Our analysis of charter schools that employ EMOs considers the credit benefits and challenges on a case-specific basis that typically considers the EMO's abilities and track record, the contract terms and the effectiveness of the charter school's oversight of the EMO. The use of private management companies can be positive when the EMO deploys experienced personnel at appropriate staffing levels and has a strong track record of delivering on expected performance levels for the issuer or in other schools under the EMO's umbrella. Positive contract provisions between the charter school and the EMO would reduce risk to bondholders in the event the contract is terminated by either party. Delineated board and management roles for both the EMO and the charter school to ensure the school's continued involvement in financial management issues and general oversight is typically a positive factor. Negative implications could include an EMO that provides sub-par performance that affects enrollment or even charter status, contract terms that impede the replacement of the EMO despite performance issues, or if the charter school's management or board disengages from its oversight role.

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

Appendix A: US Charter School Scorecard

	Sub-factor Weight	Aaa	Aa	Α	Baa	Ва	В	Caa	Ca	с
Factor 1: Scale & Demand (35%)										
Operating Revenue (\$000)*1	15%	≥ 300,000	150,000 -300,000) 25,000 - 150,000	10,000 - 25,000	3,000 - 10,000	1,700 - 3,000	900 - 1,700	700 - 900	< 700
Competitive Profile	20%	Overall exceptional. Consistently and exceptionally ranked academic leader, state verified results; exceptional prospects for sustained enrollment demand evidenced by retention, application volume, waiting list and service area demographics; extremely limited prospects for new formidable competitors or material improvement of existing competitors; very strong, market share with no history of market share erosion	relative to peers, state verified results; excellent prospects for sustained enrollment demand evidenced by retention, application volume, waiting list and service area demographics; highly limited prospects for new formidable competitors or material improvement of existing	very good. Very good academic performance relative to peers, state verified results; very good prospects for sustained enrollment demand evidenced by retention, application volume, waiting list and service area demographics; limited prospects for new formidable competitors or material improvement of existing competitors; strong market share with only very limited	Overall good. Consistent, good academic performance relative to peers, state verified results; good prospects for sustained enrollment demand evidenced by retention, application volume, waiting list and service area demo-graphics; new or newly formidable competitors unlikely to meaningfully impact market share	Overall fair. Average academic performance among peers, state verified results; fair prospects for sustained enrollment demand evidenced by retention, application volume, waiting list and service area demo- graphics; or new or newly formidable competitors could have limited impact on market share	Overall poor. Challenged or declining academic results, state verified results; or poor prospects for sustained enrollment demand evidenced by retention, application volume, waiting list and service area demo-graphics; or new or newly formidable competitors likely to impact market share	or unavailability of timely and verified results; very poor prospects for sustained enrollment demand evidenced by retention, application volume, waiting list and service area demo-graphics; market share erosion due to competition	poor. Verified and timely academic performance	N.A.
Factor 2: Operating Performance & Liquidity (20%)										
Two-year Average Operating Cash Flow Margin (%)*2	10%	≥ 37	30 - 37	24 - 30	14 - 24	6 - 14	0 - 6	(5) - 0	(10) – (5)	< (10)
Monthly Days Cash on Hand*3	10%	≥ 450	320 - 450	200 - 320	100 - 200	50 - 100	30 - 50	15 - 30	1 - 15	< 1

	Sub-factor Weight		Aa	А	Ваа	Ba	В	Caa	Ca	с
Factor 3: Leverage & Coverage (25%)										
Debt Service Coverage (x) ^{*4}	15%	o ≥8	4 - 8	2 -4	1.2 - 2	1.1 – 1.2	1 – 1.1	0 - 1	(0.5) - 0	< (0.5)
Spendable Cash to Total Debt (%)*5	10%	≥ 100	75 - 100	45 - 75	28 - 45	10 - 28	7 - 10	3 - 7	0 - 3	< 0
Factor 4: Charter Renewal Risk and Government Relations (20%)										
Charter Renewal Risk and Authorizer Relations	20%	exceptional. Demonstrated history of charter renewal and extremely limited likelihood of charter loss;	Demonstrated history of charter renewal and extremely limited likelihood of charter loss; excellent authorizer policies	renewal with very good prospects for ongoing renewal; very good authorizer policies, processes and practices; very good transparency around performance standards and charter status; very good	Limited history of charter renewal with good prospects for ongoing charter renewal; good authorizer policies, processes and practices; good transparency around performance standards and charter status; good performance relative to authorizer standards; good	history of charter renewal or fair prospects for ongoing charter renewal; fair authorizer policies, processes and practices; fair transparency around performance standards and charter status;	weaker board	Limited or no history of charter renewals or elevated risk of non-renewal and charter expiration date approaching; very poor authorizer policies, processes and practices; very poor transparency around performance	performance standards and charter status; extremely poor performance and prospects for public funding; extremely weak	N.A.

*1 For the linear scoring scale, the Aaa end point value is \$555 million. A value of \$555 million or better equates to a numerical score of 0.5. The C end point value is \$400,000. A value of \$400,000 or worse equates to a numerical score of 21.5

*2 For the linear scoring scale, the Aaa end point value is 45%. A value of 45% or better equates to a numerical score of 0.5. The C end point value is negative 26%. A value of negative 26% or worse equates to a numerical score of 21.5

*3 For the linear scoring scale, the Aaa end point value is 520. A value of 520 or better equates to a numerical score of 0.5. The C end point value is 0. A value of 0 or worse equates to a numerical score of 21.5

*4 For the linear scoring scale, the Aaa end point value is 10.0x. A value of 10.0x or better equates to a numerical score of 0.5. The C end point value is negative 1x. A value of negative 1x or worse equates to a numerical score of 21.5

*5 For the linear scoring scale, the Aaa end point value is 125%. A value of 125% or better equates to a numerical score of 0.5. The C end point value is negative 5%. A value of negative 5% or worse equates to a numerical score of 21.5

Appendix B: Metric Definitions

Scale

Operating Revenue We use annual Operating Revenue as a measure for scale. To the extent that certain non-operating revenues (per accounting classification) are included in the issuer's revenue pledge, we would include them in our definition of Operating Revenues. The most typical example is unrestricted contributions.

Operating Performance & Liquidity

Two-year Average Operating Cash Flow Margin: For each fiscal year (or 12 month period) the numerator is Operating Cash Flow, and the denominator is Operating Revenue. The two single-year margins are summed and divided by two.

Operating Cash Flow is equal to Operating Revenue minus operating expenses, plus the sum of interest, depreciation and amortization and other material non-cash expenses.

Operating Revenue is defined above.

Monthly Days Cash on Hand: The numerator is total cash and investments plus other unrestricted funds for operations, less restricted funds such as debt service reserve funds, then multiplied by 365. The denominator is total operating expenses minus the sum of interest, depreciation and amortization and other material non-cash expenses.

Leverage & Coverage

Annual Debt Service Coverage: The numerator is annual Operating Cash Flow (see definition above). The denominator is annual principal and interest payments on long-term debt.

Spendable Cash and Investments to Total Debt: The numerator is total cash and investments plus other unrestricted funds for operations, less restricted funds such as debt service reserve funds. The denominator is total debt.

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 <u>here</u>.

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.

Report Number: 1039451

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